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Dear Esteemed Members of API,

Happy New Year to all of you.

I am delighted to forward this conference issue of APICON 2019. The scientific programme will commence with a CME programme for postgraduates and delegates. Dr. G. Narsimulu, Dean Indian College of Physicians has drawn an excellent scientific programme based on the theme “Newer Discoveries and Newer Dilemmas” catering to all the Delegates attending the conference. President-Elect Dr. K.K. Pareek has done a marvellous job by having Scientific programme based on theme “Blending Research and Clinical Practices”. I am sure you will benefit by attending the same in large numbers.

This abstract issue highlights the CME and Scientific Programme of APICON 2019 to be held at Kochi from 7th – 10th February, 2019. This programme will enable the attending delegates to have an overview and plan their scientific hall attendance well in advance.

The conference issue of JAPI contains abstracts for platform presentation and list of poster presentations to be presented during APICON 2019.

I thank the Editorial Board members, and the entire staff of JAPI and API and also each and every member of API for continuous support and guidance.

Wish you all a pleasant stay and look forward to interacting with you at the conference.
Hon. Gen. Secretary’s Message

Mangesh Tiwaskar
Hon. General Secretary

It gives me great pleasure to forward this issue of JAPI with abstracts of free papers submitted for APICON 2019. This year the numbers of papers submitted speak volumes about the interest shown by the young physicians across the country, especially from medical colleges, hospitals and medical research centres in the country. It also highlights the importance given to research papers and paper presentations in APICONs. All delegates will surely be delighted to read these abstracts before the APICON 2019 at Kochi.

Kochi is blessed with lot of beauty and one the must see places in Kochi is the Marine drive. While you see those young guys having fun on the bridge on Marine Drive will make you feel nostalgic. Every generation of Kochiites come to this bridge and spent their leisure time here.

Also the scientific program is printed. JAPI February 2019 issue will reach to members before they start for the APICON 2019, Kochi. This will help the delegates to plan in advance for sessions of their interest. This happened due to the perseverance and thoughtfulness of President Elect – Dr. K. K. Pareek and Dean ICP Dr. G. Narsimhalu and Editor-in-chief Prof. Dr. Milind Y. Nadkar. They jointly have spread scientific feast before you all. I am sure you will enjoy this scientific feast.

As Hon. General Secretary of our esteemed organization, I had a rich fulfilling experience and great opportunity to interact with many stalwart physicians across India. I promise to try and give my best efforts to fulfil my obligations and every ones expectations honestly, sincerely and as per the API Constitution.

Thanks to all the relentless efforts of all the members of the JAPI Editorial Board, especially our Editor-in-Chief Dr. Milind Y. Nadkar.

I wish to specially thank Dr. Pritam Gupta, Dr. K. K. Pareek, Dr. BR Bansode, Dr. YP Munjal; Dr. Siddhart Shah, Dr. G. Narsimhalu, Dr. Mrs. Sandhya Kamath, Prof. Dr. Milind Y. Nadkar, Dr. Sreenivasa Kamath and all my friends for all the selfless help and guidance.

Warm Regards and wishing you all the best.
President Elect Message

KK Pareek
President-Elect, API and Chairman Scientific Committee, APICON 2019

Dear Esteemed Members of API,

Greetings from Scientific Committee!

It gives me an immense pleasure and incredible honour to welcome you all to APICON 2019 at Kochi “The Gods Own Country”

Scientific committee has designed a comprehensive and meaningful Scientific Programme with the best of National and International faculty.

The theme of the conference is “BLENDING RESEARCH AND CLINICAL PRACTICES” Scientific Programme will include Scientific Lectures, State of Art Sessions, Debates, Case based Presentations, Panel Discussion, Orations, PG Quiz, PG Class & Workshops to enhance our clinical skills.

Research is an integral part to development of medical sciences, we are happy to provide a platform for young researchers to present maximum numbers of original papers, Case presentations & Poster Presentations based upon Indian guidelines & data.

Along with updating your knowledge with learned faculty, the organizing committee will do its best to make you comfortable. I hope this conference is filled with opportunities for expanding your medical knowledge, sharpening your clinical skills and networking with your colleagues. Relax and enjoy the enchanting beaches, back water of Kerala, lip smacking food, timeless tradition and rich flora and fauna.

The organizing committee headed by dynamic Organizing Secretary Dr Sreenivas Kamath and Organizing Chairman Dr Sujit Vasudevan is working tirelessly to make Kochi conference a memorable one for years to come.

I look forward to welcome you to Kochi

Jai API.....!

Jai Hind.....!
Dear Friends and Colleagues,

I would like to offer a warm welcome and New Year Greetings on the behalf of Physician Research Foundation (PRF) to all the faculty and delegates who will be participating in the 74th Annual Conference of Association of Physicians of India: APICON 2019 to be held at Lulu Bolgatty International Convention Center, Kochi (Cochin), Kerala, India. The Conference is a not to be missed event for the physicians with the current year theme being “Blending Research & Clinical Practice.” The conference will bring the latest updates, recent advances, State of the Art Presentations and Hands-on Workshop from the experts from all over India and abroad. The scientific program will cover medicine as whole from patient care, hospital management and cutting age medical technology. The conference will also cover all the important subspecialties of medicine.

The organizers of APICON 2019 the API Kochi and Kerala state has done commendable job in its recovery and redevelopment of Kerala, after massive floods in August 2018. The organizers have chosen the state of the art venue (Lulu International Convention center) and will be using industry’s best technology for audio visual presentation and also management. The scientific programme will consist of scientific workshop, orations, panel discussion, oral and poster presentations of original research work, debates and discussion about standard of care and also controversies in medicine. This year’s scientific programme is meticulously made by Dr. KK Pareek: President-Elect API and Dr. G Narsimulu: Dean ICP, both needs to be complimented for compiling the very best scientific feast for delegates. Last Year in APICON 2018, Bengaluru, the PRF took over the role of Research Presentation, it conducted oral and poster research paper presentation. The PRF awarded three “Best Oral Abstract for Original Research” to encourage research in the field of Medicine. This year during APICON 2019, Kochi, PRF will be organizing two workshops on “PRF Publication workshop” and “PRF Workshop on Research methodology” on day 1 and day 2 of conference, respectively. Everyone is requested to take full advantage of free workshop during APICON 2019 as pre-registration is must and maximum 100 delegates will be registered on first cum first basis.

The Physicians Research Foundation has entered into its third year of formation and in past 3 years its progress has been very remarkable in the field of medical education and research. It conducted three successful “Research and Publication workshops” in 3 different metro cities (Delhi, Kolkata and Hyderabad) and all three workshops were highly appreciated. This year between 12th-13th January 2019, PRF will be organizing National Conference cum Workshop in Aerocity, Delhi. During last 3 years PRF received many research grant applications, after expert review and Board meeting discussions, it approved 12 research proposals for financial grant.

During the last one year (2018) PRF Board Members had 4 Governing body meetings to discuss various grants and research projects. The first meeting was held at Bengaluru during APICON 2018 (Feb 2018); Delhi: API president’s place meeting (April 2018); Mumbai: during PRF CME (June 2018); and Kochi: organizing secretary APICON 2019 meeting (Sept. 2018). All API members are welcome to apply for 2019-20 research grants. Since year 2017, PRF also released one research publication/ monograph every year. During APICON 2017, Mumbai “Pearls of Scientific Paper Writing” was released, similarly during APICON 2018 in Bengaluru “Handbook of Research Methodology” was released. Both the books were highly appreciated by readers. This year during APICON 2019, Kochi, the PRF is planning to release its 3rd publication “Ethics in Clinical Research.”

Let us all meet again in great numbers during this year’s prestigious APICON 2019 to be held in Kochi “God’s own country”. Dr. S. Kamath, Organizing Secretary APICON 2019 and his team has worked very hard to make the event a grand success. We should all join him in his endeavor to make it highly successful and memorable one in both academically as well as socially.

Long live API!
Dean ICP’s Message

G Narsimulu
DEAN, Indian College of Physicians and Chairman, CME Programme, APICON – 2019

It is my proud privilege to present scientific Program of APICON 2019.

The theme of the CME is “Newer Discoveries and Newer Dilemmas”, Newer discoveries makes significant change in approach to patient care. APICON is a multi disciplinary Conference. On first day of APICON 2019 Scientific Program of CME prepared by me and my team keeping in mind of needs of the Physicians and Sub specialties. Participating in scientific deliberation of the CME will have impact on the delegates knowledge and it will improve the patient care at their respective places.

I am indebted to every member of API for giving me feedback to prepare the scientific Program. The API President Dr Pritam Gupta, Scientific Committee Chairman President Elect Dr. K.K. Pareek and Physicians Research Foundation Director by Dr. Y.P. Munjal and ICP members have converged at this mega Conference.

It is the second time APICON returned to Kochi. Earlier APICON in Kochi held in 2008 under leadership of Dr. N.N. Ashokan then Organizing Secretary APICON- 2008. Dr. Sreenivasa Kamath, Organizing Secretary of APICON-2019 and his team have worked hard to provide the right ambiance and ensure delegate comfort.

The Progress in Medicine 2019 will be released in this conference, has come up very well. It will benefit Postgraduates and Physicians. I am indebted to committee members Dr. Ravikeerthy (Bengaluru), Dr. Udaial (Hyderabad), Dr. Srirang Abkari (Hyderabad), Dr. Y.S.N. Raju (Hyderabad), Dr. M.N. Rao (Hyderabad), Dr. G. Vishesh (Hyderabad), Dr. Rakesh Shah (Hyderabad) who have helped me in formulating the CME Program.

My good wishes to all of you for New year 2019 and to enjoy hospitality of our friends of Kerala Chapter of API along with good academic feast.

G Narsimulu

Dean-Elect ICP’s Message

Amal Kumar Banerjee
Dean-Elect, Indian College of Physicians, Chairman, CME Programme, APICON – 2019

On the occasion of 74th Annual Conference of Association of Physicians of India, APICON 2019, at Kochi, the Journal of Association of Physicians of India is going to publish the Abstract Issue of the JAPI. These abstracts would be presented at the scientific session of APICON 2019. The published abstracts encompass the major research work performed by the physicians of our country.

I hope this Abstract Issue of the JAPI, would be of immense help and stimulus to our physicians, particularly budding and clinical research oriented young physicians.
Dear Colleagues & Friends,

It gives me great pleasure to welcome you to “APICON 2019” to be held at Kochi (Cochin) in Kerala State from the 7th to 10th of February, 2019.

We, the members of the Association of Physicians of India, Kochi Branch consider it a great privilege to be given the responsibility of conducting this prestigious conference-arguably the biggest of its kind in South Asia. We had conducted this conference in 2008 and the experience gained from that has given us the confidence to repeat the performance. The venue of the Conference is the spanking new Lulu Bolghaty International Convention Centre attached to the Grand Hyatt Hotel. This state-of–art Convention Centre has all modern amenities and we are sure will be a delight for the delegates. We are sure we will be able to conduct APICON 2019 in an excellent manner. We envisage a conference that will have the best of everything—academics, cultural activities, culinary delights and also an opportunity to meet old friends and make new ones. We propose making this a high tech conference with innovations in registration, entries, and audio-visuals.

The Scientific Committee has planned a feast of programmes which will incorporate the CME on the first day. The Scientific sessions have been carefully planned and will include latest innovations, research and current topics. I am sure that the scientific deliberations will be of very high quality and that the delegates will go back fully satisfied.

Kerala has often been referred to as “God’s own Country”. We have sandy beaches, cool hill stations, languid backwaters and rivers. Fort Cochin & Mattancherry reverberate with history & rustic charm. Ancient temples, churches & Mosques dot the countryside.

Kochi is also a gateway to fabled tourist points like Kumarakom & Munnar and religious towns like Guruvayoor, Kalady & Malayattoor. The entire State of Kerala is studded with places of interest to visitors of all hues and taste. Come for the conference and fall in love with our place.

We welcome you to participate in this Conference and hope you will come in large numbers. We assure you that you will return satisfied. We look forward to receiving you in Kochi for APICON 2019.

With warm regards.
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# TENTATIVE SCIENTIFIC PROGRAMME (APICON CME 2019)

**Thursday, 7th February 2019**

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<td>• Rickssial infections: spreading beyond boundaries</td>
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<td><strong>Chairperson:</strong> Madhumathi, Karnataka</td>
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<td>• Stroke Mimics- What to do?</td>
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<td>Suda Vidyasagar, Mangaluru</td>
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<td>10.20-10.50</td>
<td>Inauguration of CME in Hall A, Kindly go to Hall A</td>
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<td>10.50-11.20</td>
<td><strong>Chairpersons:</strong> Amal Kumar Banerjee, Kolkata; KK Pareek</td>
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<td>• Deans Oration in Hall A G Narasimulu, Hyderabad</td>
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<td>11.20-11.40</td>
<td><strong>Chairperson:</strong> AP Naveen Kumar, Vishakapatnam</td>
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<td></td>
<td>• Newer Avenues in HIV Prophylaxis- Pre and post exposures</td>
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<td>AV Rao, Hyderabad</td>
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<td>11.40-12.00</td>
<td><strong>Chairperson:</strong> S Narasinger Rao, Visakhapatnam</td>
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<td>• IRIS</td>
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<td>Murugesh Pastapuri, Gulbarga</td>
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<td>12.00-12.20</td>
<td><strong>Chairperson:</strong> Narayan Banerjee, Kolkata</td>
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<td>• Management common medical disorders in pregnancy</td>
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<td>BS Narasimulu, Bengaluru</td>
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<td>12.20-12.40</td>
<td><strong>Chairperson:</strong> Niladri Sarkar, Kolkata</td>
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<td>• HCV Management present day perspective</td>
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<td>Suresh Kumar, New Delhi</td>
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<td>12.40-01.00</td>
<td><strong>Chairperson:</strong> Pradip Choudhury, Kolkata</td>
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<td>• Management of Hypertension in pregnancy</td>
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<td>Pavan Kumar, Warangal</td>
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<td>01.00-01.20</td>
<td><strong>Chairperson:</strong> HS Pathak, Kolkata</td>
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<td>• Psoriatic Arthritis- Current concepts</td>
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<td>Sourab Malviya, Indore</td>
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<td>01.20-01.40</td>
<td><strong>Chairperson:</strong> Subbu, Kochi</td>
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<td>• Glucocorticoids in Rheumatic disease- Whats’ new?</td>
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<td>Vinod Raveendran, Kerala</td>
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<td>01.40-02.00</td>
<td><strong>Chairperson:</strong> Asish Kumar Saha, Kolkata</td>
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<td>• Qualitative research in clinical practice</td>
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<td>Uttam Paul, Bihar</td>
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<td>02.00-02.20</td>
<td><strong>Chairperson:</strong> Anitha Nambair, Kerala</td>
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<td></td>
<td>• Newer Therapies in Rheumatoid arthritis</td>
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<td>Binay Paul, Kerala</td>
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<td>02.20-02.40</td>
<td><strong>Chairperson:</strong> Abhijit Pal, Kolkata</td>
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<td>• Coronary interventions in Takayasu’s Arthritis</td>
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<td>Mantosh Panja, Kolkata</td>
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<td>02.40-03.00</td>
<td><strong>Chairperson:</strong> Partha Pratim Das, Alipurduar</td>
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<td>• Newer Diagnostic modalities in tuberculosis</td>
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<td>AG Goshal, Kolkata</td>
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<td>03.00-03.20</td>
<td><strong>Chairperson:</strong> Tapas Banerjee, Kolkata</td>
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<td></td>
<td>• New geriatric Syndrome</td>
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<td>Ashish Goel, New Delhi</td>
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<td>03.20-03.40</td>
<td><strong>Chairperson:</strong> Amartya Mishra, Kolkata</td>
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<td>• Best Oil in Indian Oil</td>
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<td>Shibendu Ghosh, Kolkata</td>
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<td>04.00-04.20</td>
<td><strong>Chairperson:</strong> Tapas Kumar, Kolkata</td>
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<td>• Is clinical examination still relevant?</td>
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<td>Chandrasekhar, Warangal</td>
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<td>04.40-05.00</td>
<td><strong>Chairperson:</strong> Jayanta Sharma, Kolkata</td>
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<td>• Therapeutic Use of Cytokines In Infectious Diseases</td>
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<td>Thrilokchander, Hyderabad</td>
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<td>05.00-05.20</td>
<td><strong>Chairperson:</strong> Jayanta Dutta, Kolkata</td>
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<td>• Ultrasound application in musculo Skeletal diseases</td>
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<td>Ved Chaturvedi, New Delhi</td>
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<td>05.20-05.40</td>
<td><strong>Chairperson:</strong> Yeelekar, Mumbai</td>
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<td>• Understanding Metabsity and its Management</td>
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<td>Aditya Yeelekar, Mumbai</td>
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<td>05.40-06.00</td>
<td><strong>Chairperson:</strong> Immunology in Malaria</td>
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<td>Manohar, Hyderabad</td>
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<td>09.00-09.20</td>
<td><strong>Chairperson:</strong> Vipin</td>
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<td>• Setting the scene: Physiology &amp; metabolism of insulins, history, milestones and profiles</td>
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<td>PK Jabbar</td>
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<td>09.20-09.40</td>
<td><strong>Chairperson:</strong> Insulin is patient friendly: Demystifying old myths</td>
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<td>Harish Kumar</td>
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<td>09.40-10.00</td>
<td><strong>Chairperson:</strong> Starting insulin in a patient with T2DM: Case based discussion</td>
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<td>10.00-10.20</td>
<td><strong>Chairperson:</strong> Continued insulin care: Monitoring treatment to suit patient needs</td>
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<td>Mathew John</td>
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<td>10.20-10.50</td>
<td>Inauguration function and Deans Oration</td>
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<td>10.50-11.20</td>
<td><strong>Chairperson:</strong> Successful insulin treatment: Empowering patients for day-to-day care</td>
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<td>Jothydev Kesavadev</td>
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<td>11.40-12.00</td>
<td><strong>Chairperson:</strong> How to write a paper</td>
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<td>01.00-01.20</td>
<td><strong>Chairperson:</strong> YP Munjal</td>
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<td>01.20-01.40</td>
<td><strong>Chairperson:</strong> Anupam Prakash</td>
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<td>01.40-02.00</td>
<td><strong>Chairperson:</strong> Ghanshyam Pangtey</td>
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<td>02.00-02.20</td>
<td><strong>Chairperson:</strong> Ashish Goel</td>
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<td>02.20-02.40</td>
<td><strong>Chairperson:</strong> Vinod Ravindran</td>
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<td>02.40-03.00</td>
<td><strong>Chairperson:</strong> Naval K Vikram</td>
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<td>03.00-03.20</td>
<td><strong>Chairperson:</strong> Rajnish Joshi</td>
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## Time Session

### HALL - H

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| 09.00-09.20 | Joint Injections  
  - Indications, contraindications, and complications  
    Rohini Handa |
| 09.20-09.40 | Preparations, Drugs, and equipment used  
    AK Khan |
| 09.40-10.00 | Shoulder-anatomy and injection techniques  
    SJ Gupta |
| 10.00-10.20 | Hip anatomy and injection technique  
    Rohini Handa |
| 10.20-10.50 | Knee anatomy and injection techniques  
    PD Rath |
| 10.50-11.20 | Inauguration of CME in Hall A, Kindly go to Hall A |
| 11.20-11.40 | Chairperson: Amal Kumar Banerjee, Kolkata; KK Pareek  
  - Deans oration in Hall A  
    G Narsimulu, Hyderabad |
| 11.40-12.00 | Ankle anatomy and injection techniques  
    AK Khan |
| 12.00-12.20 | Meghna  
  - Medico Legal Aspects |

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| 01.00-01.20 | Ethical issues with HIV patients  
    Dipanjan Bandyopadhyay |
| 01.20-01.40 | Research on Human being the ethical issues  
    R Chandni |
| 01.40-02.00 | Liberty of dying gracefully  
    Shibendu Ghosh |
| 02.00-02.20 | Medicolegal scenario in Medical practice in India  
    Arulraj |
| 02.20-02.40 | Ethical guidelines in Medical Practice  
    Roy Abraham Kallivilli |
| 02.40-03.00 | MCI vs NMC |
Zilarbi™
Azilsartan Medoxomil 40/80 mg Tablets

Drop in BP, as it should be...

Glipsov™
Teneligliptin 20 mg Tablets

Morning to...Morning control

S-Numlo™
S(-)Amlodipine Tablets IP 2.5/5 mg

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<td>8.30-9.00 am</td>
<td>Inauguration of Scientific Programme</td>
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| 9.00-10.00 am| Dr. V. Parameshvara Life Time Achievement Award – 2019  
Dis-Ease of Medicine  
Anil Kumar Chaturvedi, New Delhi  
Guest Lecture  
Recurrent LRTI’s A Growing Concern: A focus on appropriate choice of macrolides  
Ashok Mahasur, Mumbai  
Keynote Address  
Five Trials in 2018 Which Changed My Clinical Practice  
Ashok Seth, New Delhi |
| 10.00-11.00 am| Meet the Legends  
The Prevention of Chronic Renal Failure  
MK Mani, Chennai  
Recent Advances In Management Of Diabetes  
YP Munjal, Gurgaon  
Guest Lecture  
Sarcopenia: A missing piece in Disease Management  
Ravindra Reddy, Hyderabad |
| 11.00-11.30 am| Presidential Oration  
Art of Medicine - Still relevant in today’s Scenario  
KK Pareek, Kota |
| 11.30-1.00 pm| World Wide Initiative for Diabetes Education Symposium  
Welcome, Introductions, and Objectives  
Andrew J.M. Boulton, Manchester  
The Epidemiology of Type 2 Diabetes  
Shashank Joshi, Mumbai  
Hypoglycaemia and Its Impact on Patient Function and Outcomes  
Brian Frier, Edinburgh  
The Decrease in Cardiovascular Risks with New Therapeutic Agents Based on Recent Cardiovascular Outcomes Trials  
Satinath Mukhopadhyay, Kolkata  
Panel Discussion: Question-and-Answer Session  
All faculty |
| 1.00-2.00 pm| Guest Lecture  
Managing Myocardial Infarction: Applying Glasgow Protocol To Clinical Practice in India  
Hany Eteiba, UK  
Cardiac Issues In The Elderly  
Jackie Taylor, UK  
Honor Lecture  
Acute Pancreatitis - What The Physician Should Know  
D Nageshwar Reddy, Hyderabad |
| 2.00-3.00 pm| Panel Discussion  
Importance of the latest hypertension guidelines and their applicability for public health in India  
Moderator: C. Venkata S Ram, Hyderabad  
Panelist: G S Wander, Ludhiana; HK Chopra, New Delhi; Poonam Malhotra, New Delhi |

**Friday, 8th February, 2019**

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<th>TIME</th>
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| 3.00-4.00 pm | Netaji Oration – 2019  
Paradoxical Phenomena in Epilepsy  
Ambarnath Chakravarty, Kolkata  
Medicine for Internist  
Built Environment & Health  
Arulraj Sundaram, Tuticorin  
Prevention of Stroke  
Pritam Gupta, New Delhi |
| 4.00-5.00 pm | Honor Lecture  
Risk Stratification & Management Algorithm for ACS - NSTEMI  
Lekha Pathak, Mumbai  
Dr. P. J. Mehta Oration  
Simplified Protocols For Improvement In The Management of Hypertension – Applicable To India  
A Muruganathan, Tirupur  
Guest Lecture  
Bariatric endoscopy: New frontiers to treat obesity with minimally invasive weight loss procedures  
Violeta Popov, USA |
| 5.00-5.40 pm | Update Session  
Lipid Association of India : Consensus statement on recommendations in special populations  
S.N. Narasingan, Chennai  
Infections in Elderly  
Shohael Mahmud Arafat, Bangladesh |
| 6.20-7.00 pm | Finance for Doctors  
Let’s talk about money Power  
Ashish Modani, Jaipur  
Anaemia in Elderly  
Ashok Singh, Varanasi |
| 9.00-10.00 am| International Symposia  
Pregnancy and Heart Disease  
Mandish Dhanjal, UK  
Current scenario of Acute MI care in Bangladesh  
SM Mustafa Zaman, Bangladesh  
Risk of developing breast cancer: identifying who is at risk and utilizing evidence to guide patient care  
Karthik Ghosh, Australia |
### TIME | SUBJECT
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11.00-11.30 am | Presidential Oration in Jivraj Mehta Hall | Liwa Hyatt
11.30-12.30 pm | Cardiolovalvular Symposia  
Arrhythmias In Clinical Practice - How Stress Testing Help?  
S.B. Gupta, Mumbai  
Management of HTN in Diabetes  
Mangesh Tiwaskar, Mumbai  
Renovascular Hypertension  
Durga Prasad Chakraborty, Kolkata
12.30-1.30 pm | Update Session  
Screening and Early Diagnosis of Cancer  
Sanjay Jain, USA  
Vitamin B12 deficiency in clinical practice : often overlooked entity  
SP Sondhi, Merrut  
Precision PCI for Complex Lesions - Optimal Use of Physiology, DES & Imaging  
Rony Mathew, Kochi
1.30-2.30 pm | Diabetes Symposia: Beyond Glycemia  
Prediabetes – beyond the tip of the iceberg  
Sarita Bajaj, Allahabad  
Type -1 Diabetes : Challenges, Awareness And Management In Indian Scenario  
GD Ramchandani, Kota  
DPP-4 Inhibitors In Type 2 Diabetes Mellitus : An Indian Perspective  
Manoj Saluja, Kota
2.30-3.30 pm | Medicine for Internist  
Cardio Pulmonary Resuscitation & Cardiac Arrest  
Colin Robertson, UK  
Kidney In Multiple Myeloma  
NP Singh, New Delhi  
Managing problems faced by Clinicians in day to day practice in current/difficult ERA  
RM Chhabra, New Delhi
3.30-4.30 pm | Panel Discussion  
Moderator: Prabhash Manoria, Bhopal  
Panelists: Ashok Vora, New Delhi; Amit Vora, Mumbai; Balbir Singh, New Delhi
4.30-5.30 pm | Update Session  
MDR-Tuberculosis: Diagnosis and Management  
MA Jalil Chowdhury, Dhaka  
Tough Calls in Acute Neurology  
K Vijayan, Coimbatore  
Prebiotics and Probiotics: A Critical Analysis  
PS Karmakar, Kolkata
5.30-6.30 pm | Medical Dilemma  
Reversal of Anticoagulant Action  
VK Katyal, Rohtak  
Subclinical Hyperthyroidism- Does It Needs Treatment  
Prakash Keswani, Jaipur  
Advances In Acute Ischemic Stroke Management  
Vijay Sardana, Kota
6.30-7.10 pm | Diabetes: Basic Science  
Molecular Basis of Asian Indian Phenotype  
Sandeep Mathur, Jaipur  
Severe Insulin Resistance Syndromes: Clinical Perspective  
Amit Verma, Dehradun

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### TIME | SUBJECT
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9.00-10.00 am | Medicine for Internist  
Physicians Approach to Ascites  
Gautam Bhandari, Jodhpur  
Interpretation of Thyroid Function Test  
AK Gupta, Agra  
Spontaneous Bacterial Peritonitis  
Nalini Humaney, Nagpur
10.00-11.00 am | Cardiolovalvular Symposia  
Resurgence of Diuretics in the Treatment of Hypertension.  
Jai Bhagwan, Gurgaon  
Familial Hypercholesterolemia  
J.P.S. Sawhney, New Delhi  
Lipid Management: How Aggressive is Aggressive?  
Raman Puri, New Delhi
11.00-11.30 am | Presidential Oration in Jivraj Mehta Hall | Liwa Hyatt
11.30-12.50 pm | Panel Discussion  
NCD Master Class - Therapeutic and Clinical Pearls  
Moderator: Ashok Kumar Das, Puducherry  
Panelists: Balram Bhargav, New Delhi; Anoop Misra, New Delhi; Georgi Abraham, Chennai; C Venkata S Ram, Hyderabad
12:50-1:50 pm | Cardiology Update  
Hypertrophic Obstructive Cardiomyopathy (HOCM)  
Amit Vora, Mumbai  
Management of Heart Failure with Preserved Ejection Fraction (Diastolic Heart Failure): Myths and Realities  
HK Chopra, New Delhi  
How to Refine and Redefine the CV Risk in Patients with Hypertension?  
Anuj Maheshwari, Lucknow
1.50-2.50 pm | Update Session  
Euthanasia - The Law And The Present-Day Pitfalls  
Anupam Prakash, New Delhi  
Management of Hypokalemia  
Sekhar Chakraborty, Siliguri  
Arbekacin: A new frontier in the management of critical infections  
Indranee Basu, Varanasi
2.50-3.50 pm | Medicine for Internist  
ABPM : Gold Standard For Managing Hypertension  
NK Soni, Ghaziabad  
Clinical Presentation and Systemic Manifestations of Ebola Virus  
Rajib Ratna Chaudhary, Patna  
Isolated Systolic Hypertension  
Kamlesh Tewary, Muzaffarpur
3.50-4.50 pm | Hormone Update  
HRT In Perimenopausal Women  
Minal Mohit, Mumbai  
Male Hypogonadism In Diabetes  
RP Agarwal, Bikaner  
Endocrine Manifestation of Systemic Disease  
Sudhir Bhandari, Jaipur
4.50-5.30 pm | Neurology Symposia  
Clinical Approach to Headache  
CK Jana, Kolkata  
Approach to Parkinson Plus Syndrome  
Mugundhan Krishnan, Chennai
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<td>**Col. Amir Chand Hall</td>
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<td>Update Session</td>
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<td>Diabetes Management in Low Resource Settings</td>
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<td>AG Unnikrishnan, Pune</td>
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<td>Use of Insulin at Diagnosis in Type 2 Diabetes Mellitus</td>
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<td>Jitender Kumar Mokta, Shimla</td>
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<td>Statin: Still a Superhero or now Playing a Character Role?</td>
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<td>Saumitra Ray, Kolkata</td>
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<td>Haemato Oncology Symposia</td>
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<td>Genomics Guided Therapeutics- New Direction For Precision Oncology?</td>
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<td>**VC Mathew Roy Hall</td>
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<td>Cardiology Symposia</td>
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<td>Pulmonary Arterial Hypertension</td>
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<td>Anil Modak, Nagpur</td>
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<td>Rheumatic Heart Disease - Where Do We Stand?</td>
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<td>Gp Capt DS Chadha, Bengaluru</td>
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<td>Nuclear Cardiology as a Strategy for Evaluation of Cardiac Disorders</td>
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<td>E. Prabhu, Chennai</td>
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<td>Approach In Pregnancy With Jaundice</td>
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<td>Manisha Bais Thakur, New Delhi</td>
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<td>Ramesh P. Mundle, Nagpur</td>
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<td>Trupti Trivedi, Mumbai</td>
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<td>11.00-11.30 am</td>
<td>Presidential Oration in Jivraj Mehta Hall</td>
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<td>Assessment of Vascular Dementia</td>
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<td>CHF In Elderly Population</td>
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<td>12.30-1.30 pm</td>
<td>Liver Wellness Symposia</td>
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<td>Hepatic Encephalopathy</td>
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<td>Tanuja Manohar, Nagpur</td>
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<td>Drug Induced Liver Injury- Diagnosis And Management</td>
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<td>S.M. Shasthry, New Delhi</td>
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<td>NASH - As an Emerging Threat</td>
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<td>Jeewan Kumar Mitra, Jamshedpur</td>
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<td>1.30-2.30 pm</td>
<td>Diabetes Symposia</td>
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<td>Diabetes In Elderly</td>
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<td>Anita Nambiar, Kochi</td>
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<td>Tips And Tricks For Using SGLT-2 Inhibitors In Type -2 Diabetes</td>
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<td>Anil Virmani, Jamshedpur</td>
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<td>Diabetes In Pregnancy V/S Gestational Diabetes - Difference In</td>
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<td>Management Jalees Fatima, Lucknow</td>
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<td>**VC Mathew Roy Hall</td>
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<td>Periodontal Disease and Diabetes</td>
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<td>A K Mukherjee, Kolkata</td>
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<td>Hypertension In CKD</td>
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<td>RR Jha, Indore</td>
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<td>Rheumatological Manifestations of HIV</td>
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<td>Vikram Londhey, Mumbai</td>
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<td>3.30-4.30 pm</td>
<td>Social Issues and Health</td>
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<td>Quality Management in Healthcare Delivery</td>
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<td>Anil Kumar, Kollam</td>
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<td>Pharmacovigilance -Role of Physicians</td>
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<td>Gurudas Khilmani, Ajmer</td>
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<td>Communication In Healthcare</td>
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<td>Veena Upadhyay, New Delhi</td>
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<td>4.30-5.30 pm</td>
<td>Medicine for Internist</td>
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<td>Hyperprolactenemia</td>
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<td>Alka Deshpande, Mumbai</td>
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<td>Role of PCSK-9 Inhibitors in the Management of Dyslipidaemia</td>
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<td>S.K. Sharma, Jaipur</td>
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<td>5.30-6.30 pm</td>
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<td>Dengue Revisited</td>
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<td>Dinesh Sharma, Jaipur</td>
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<td>Alcoholic Hepatitis- The Growing Burden And The Current Management</td>
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<td>Management of Enteric Fever</td>
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<td>Ketan Mehta, Mumbai</td>
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<td>6.30-7.10 pm</td>
<td>Hot spots in Medicine</td>
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<td>Anaemia of Chronic Disease -Recent Advances</td>
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<td>Mathew Thomas, Thiruvananthapuram</td>
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<td>HIV And Pregnancy</td>
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<td>Swaroop Baruah, Gawahati</td>
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<td>9.00-10.00 am</td>
<td>**RM Kasliwal Hall</td>
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<td>Challenges in Geriatric Medicine</td>
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<td>Evaluation and Prevention of Falls in Elderly</td>
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<td>Arvind Mathur, Jodhpur</td>
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<td>Approach to a Comatose Elderly In Emergency Room</td>
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<td>Gursaran Sidhu, Ludhiana</td>
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<td>Geriatrics : Can We Follow Western Pattern Or Indianise.</td>
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<td>OP Sharma, New Delhi</td>
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<td>10.00-11.00 am</td>
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<td>A Physician’s Approach to Management of Obesity</td>
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<td>Jagdeep Chugh, New Delhi</td>
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<td>Chronic Heart Failure : Looking Beyond Symptomatic Relief</td>
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<td>Pramod Kumar Sinha, Gaya</td>
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<td>Comparative analysis of two recently published</td>
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<td>hypertension guidelines: “ACC/AHA” and “ESC guidelines”</td>
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<td>Santanu Guha, Kolkata</td>
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<td>11.00-11.30 am</td>
<td>Presidential Oration in Jivraj Mehta Hall</td>
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### TIME | SUBJECT
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**RM Kasliwal Hall | Grand Ball Room - 1, Hyatt**
11.30-12.30 pm | Hypertension update
Hypertensive Crisis  
Prabhat Pandey, Durg  
Prehypertension- Time To Act  
RK Singal, New Delhi  
Blood Pressure Measurements – Methods, Techniques and Current Relevance  
Mahabir Thakur, Sitamarhi

12.30-1.30 pm | Tropical Disease Symposia
P. Vivax Malaria - Not Benign any more  
Dhanpat Kumar Kochar, Bikaner  
H1N1: Diverse Implications  
Raman Sharma, Jaipur  
Scrub Typhus - An Update  
TB Umadevi, Chennai

1.30-2.30 pm | Taking Beyond Medicine
Corporatisation and Health Care: Good or Bad  
Vitull K Gupta, Bhatinda  
The War Within – The Enemy: Free Radicals and the Allies: Antioxidants  
Kiran Soni, Ghaziabad  
Generic Medicine: Western Idea in Indian Context  
Rajiv Raina, Shima

2.30-3.30 pm | Medicine for Internist
Endogenous Depression - We Need to Diagnose, Understand and Treat it Better  
Vihal D Maheshwari, Jaipur  
Very Late Complication of Percutaneous Coronary Intervention  
Vijay Garg, Ujain  
Diabetes and Heart Failure  
M Ravikeerthy, Bengaluru

3.30-4.10 pm | Update Session
New Food Obsession: Low Carb Diet  
Sonia Arora, Bhatinda  
Management of Severe Tetanus  
Anil NX, Kochi

5.30 pm onwards | Convocation

### TIME | SUBJECT
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**MJ Shah Hall | Grand Ball Room- 2, Hyatt**
11.30-12.30 pm | Medicine for Internist
Viseral Adiposity Index  
Hem Shanker Sharma, Bhagalpur  
Hypertension and Dyslipidemia Lipitension – “A Double Whammy and an Arm Chair Epidemic”  
Manohar KN, Bengaluru  
Hypertension and Hypokalemia  
Mritunjay Kumar Singh, Gaya

12.30-1.30 pm | Brain Wellness Symposia
Evaluation of a Case of Febrile Encephalopathy.  
Geeta Kampani, New Delhi  
Acute Symptomatic Seizures  
MK Roy, Kolkata  
Syncope  
Raza Syed, Bahrain

1.30-2.30 pm | Kidney Wellness Update
e-GFR What An Internist Should Know?  
Manisha Sahay, Hyderabad  
Hyponatremia: Causes And Consequences  
S Chandrasekhar, Chennai  
Legal & Ethical Issues In Renal Transplantation; Renal Disease In India  
Ashok Hooda, New Delhi

2.30-3.30 pm | Pulmonology Symposia
HRCT: Increasing Role in the Diagnosis of Pulmonary Diseases  
Arjun Khanna, New Delhi  
Pulmonary Function Test Interpretation: Clinical Pearls Using a Case Based Approach  
Udas Ghosh, Murshidabad  
Pneumococcal Vaccine- Clinical Utility  
Vishal Chopra, Patiala

3.30-4.30 pm | Pyrexia: Diagnostic Challenges
Physicians Approach to a Patient with Fever & Neutropenia  
Hemant Malhotra, Jaipur  
Problem Fever in Day to Day Practice  
YJ Vishveshwara Reddy, Kuppam  
You Cannot Rash when Fever Coincides with Rash  
Sriprasad Mohanty, Cuttack

4.30-5.30 pm | Update Session
Management of Nosocomial Infections  
T Saravanan, Coimbator  
Transplant vs Chemotherapy in Multiple Myeloma  
AP Dubey, New Delhi  
Multiple Myeloma - Recent Advances  
Biranchi Mohapatra, Cuttack

5.30-6.30 pm | Tropical Disease Update
Common Poisoning In Indian Scenario  
Saikat Dutta, Siliguri  
Scorpion Sting  
SM Baruah, Dibrugarh  
High Altitude and Hematology: Indian Data  
Lt Col Y Uday, New Delhi

6.30-7.10 pm | Pregnancy Medicine
Liver Disorders In Pregnancy  
Naresh Bansal, New Delhi  
Approach to Thrombocytopenia In Pregnancy  
Namitha Narayanan, Chennai
Workshops

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<td>10.00-1.00 pm</td>
<td>Cardiac Arrhythmias – Unravelled</td>
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<td>Moderator: M Chenniappan</td>
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<td>2.00-5.00 pm</td>
<td>Effective use of Technology in Clinical Medicine</td>
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<td>Moderator: Shriram V Kulkarni</td>
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<td>Faculty: Sagar Sinha, Bhamangesh Naik, Alok Modi,</td>
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<td>Laxman G Jessani, Navneet Wadhwa, Suresh Shinde,</td>
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<td>Ashay Shrikant Kulkarni, Kailas Gokral</td>
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<td>N D Patel Hall</td>
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<td>10.00-1.00 pm</td>
<td>Coagulation Disorder</td>
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<td>Faculty: Rumma manchanda</td>
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<td>2.00-5.00 pm</td>
<td>Research Methodology</td>
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<td>Moderator: Ghanshyam Pangtey, YP Munjal</td>
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<td>Faculty: Gp Capt Salil Gupta, Surg Lt Cdr Arnab</td>
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<td>Ghosh, Air CMDE, S Shankar, Col Suman Pramanik,</td>
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<td>12.00-1.00 pm</td>
<td>Meet the Master Teachers</td>
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<td>Improved understanding and treatment of the autoimmune inflammatory</td>
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<td>myositis with burgeoning discoveries of myositis-specific and</td>
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<td>myositis-associated antibodies</td>
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<td>AN Malaviya, New Delhi</td>
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<td>1.00 to 2.00 pm</td>
<td>Keynote Address</td>
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<td>How Digital Technology will Change Healthcare</td>
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<td>Devi Shetty, Bengaluru</td>
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<td>Guest Lecture</td>
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<td>Update In Gastroesophageal Reflux Disease, Pathophysiology, Diagnostic</td>
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<td>Tests, Complications And Treatment</td>
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<td>Larry S Miller, USA</td>
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<td>HBV Management algorithm in 2019</td>
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<td>SK Sarin, New Delhi</td>
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<td>2.00 to 3.00 pm</td>
<td>Sepsis Symposia</td>
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<td>Sepsis and Septic Shock-- What have we Learnt Over the Years</td>
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<td>MPS Chawla, New Delhi</td>
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<td>Withdrawal and Withholding of Life Support in the ICU</td>
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<td>RK Mani, Gurgaon</td>
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<td>Right IV Fluid for Resuscitation - Current Trend</td>
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<td>Sanjay Pandya, Rajkot</td>
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<td>3:00 to 3:40 pm</td>
<td>Panel Discussion</td>
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<td>Long Term Safety of PPI</td>
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<td>Moderator: Dwijen Das, Dibrugarh</td>
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<td>Panelist: Uday C Ghoshai, Lucknow, MM Bahadur,</td>
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<td>Mumbai, Rushi Deshpande, Mumbai, Ajay Mahajan, Mumbai</td>
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<td>3:40 to 4:40 pm</td>
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<td>Endocrine Update</td>
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<td>Hypothyroidism : Clinical Pearls</td>
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<td>Anil Bhansali, Chandigarh</td>
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<td>Does Diabetes Contribute to the TB Epidemic in India</td>
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<td>Vijay Vishwanathan, Chennai</td>
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<td>Diabetic Autonomic Neuropathy</td>
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<td>JK Sharma, New Delhi</td>
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<td>Management of Eosinophilic Lung Disease</td>
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<td>GC Khilani, New Delhi</td>
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<td>Masked Hypertension: Current Scenario</td>
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<td>Vivek Agarwal, Lucknow</td>
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<td>Diabolical Diabetes</td>
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<td>Evaluation of a Newly Diagnosed Diabetes Patient</td>
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<td>Bhavesh Patel, Modasa</td>
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<td>Emerging Injectable Therapies for Type 2 Diabetes</td>
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<td>Parikshit Goswami, Himmatnagar</td>
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Saturday, 9th February, 2019

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<td>9.00-10.00 am</td>
<td>Medicine for Internist</td>
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<td>Management of Hyperuricemia &amp; associated conditions</td>
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<td>PM Jayaraj, Trissur</td>
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<td>Management of Hypothyroidism</td>
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<td>Manika Sumanatileke, Sri Lanka</td>
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<td>Origin of Cardio Metabolic Diseases and Steps to Ameliorate</td>
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<td>Seshiah V, Chennai</td>
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<td>Teneligliptin – The next generation glitin</td>
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<td>Shashank R. Joshi, Mumbai</td>
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<td>Screening for Hypertension in Asymptomatic Individuals in India:</td>
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<td>An Expert Consensus</td>
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<td>Saumitra Ray, Kolkata</td>
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<td>Azilsartan – Indian data (RAAS India) and current perspective</td>
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<td>Uday JadHAV, Mumbai</td>
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<td>11.00-12.00 pm</td>
<td>State - of - the - art Lectures</td>
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<td>Indian dietary guidelines for managing GI conditions in metabolic</td>
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<td>syndrome patients and the impact of lifestyle modification on patient</td>
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<td>Ritu Sudhakar, Ludhina/Rajesh Upadhyay, New Delhi</td>
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<td>Understanding the Cough Conundrum: A Diagnostic and</td>
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<td>Therapeutic Challenge</td>
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<td>Randeep Guleria, New Delhi; Raja Dhar, Kolkata</td>
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<td>SGLT-2: Current therapies and trends</td>
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<td>Abdul H Zargar, Shrinagar</td>
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<td>9.00-10.00 am</td>
<td>MR Guruswami Hall</td>
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<td><strong>Guest Lecture</strong></td>
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<td>The Science of Medicine and the Art of Bedside Manners: Two Sides of the Same Coin</td>
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<td><strong>Tanu S Pandey</strong>, USA</td>
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<td>Role of Alpha-Cells In Diabetes</td>
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<td><strong>Rabin Maskey</strong>, Nepal</td>
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<td>Initiation &amp; Intensification of Insulin</td>
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<td><strong>Palaniappan, Gaziulparai</strong></td>
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<td>10.00-11.00 am</td>
<td><strong>Medicine for Internist</strong></td>
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<td>Prokinetic induced movement disorders on rise: Choose the prokinetic wisely</td>
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<td><strong>Hrishikesh Kumar, Kolkata; Philip Abraham, Mumbai</strong></td>
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<td>Management of NAFLD</td>
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<td><strong>Sudhamshu KC, Nepal</strong></td>
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<td>Recent developments in Vestibular system</td>
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<td><strong>Herman Kingma, Netherland</strong></td>
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<td>11.00-12.00 pm</td>
<td><strong>Dr. Coelho Memorial Lectureship in Experimental Medicine 2019</strong></td>
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<td>Blood Pressure Control In Spontaneous Intracerebral Hemorrhage</td>
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<td><strong>Gp. Capt. Salil Gupta, New Delhi</strong></td>
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<td><strong>Dr. G.S. Sainani Oration 2019</strong></td>
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<td>Chikungunya-Epidemic 2006 in Bikaner(North-West India) and Follow Up of Patients for Ten Years</td>
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<td><strong>Liyakat Ali Gauri, Bikaner</strong></td>
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<td>Principals of Drug Dose Modification in Renal Failure</td>
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<td><strong>Alok Gupta, Australia</strong></td>
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<td>12.00-1.00 pm</td>
<td><strong>Basic Science Symposium</strong></td>
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<td>Approach to Chest Pain Beyond MI</td>
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<td><strong>DP Singh, Bhagalpur</strong></td>
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<td>Rapid Clinical Examination in Emergency</td>
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<td><strong>Sanjiv Maheshwari, Ajmer</strong></td>
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<td>Metabolic Surgery - Time to Account the Adverse Consequences</td>
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<td><strong>Soumitra Ghosh, Kolkata</strong></td>
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<td>1.00 to 2.00 pm</td>
<td><strong>Diabetes Symposium</strong></td>
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<td>Modern SUs : Still the Best Partner to Metformin</td>
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<td><strong>Ashok Kumar Das, Puducherry</strong></td>
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<td>Protecting Heart &amp; Kidney in Diabetes - Early Use of SGLT-2 Inhibitors</td>
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<td>Management of Type 2 DM : Indian Story</td>
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<td>Premix Insulins in India : Effectiveness and Convenience</td>
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<td>Striking the Right Balance in Insulin Therapy Coformulations</td>
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<td>Simplifying IPF - Amplifying Life</td>
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<td>In Hospital Glycemic Control: Have we Achieved?</td>
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<td>Judicious Use of Endocrine Investigations</td>
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<td><strong>Samar K Banarjee, Kolkata</strong></td>
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<td><strong>Cardiology Symposia</strong></td>
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<td>Primary PCI or Thrombolysis or Pharmaco-Invasive Therapy In Acute ST Elevation MI - What is the Best Strategy in Indian Scenario?</td>
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<td>Post Fibrinolytic Strategies In ST Elevation Myocardial Infarction</td>
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<td>Metabolic Syndrome &amp; Cardiovascular Risk : Indian Perspective</td>
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<td>Role of Glycemic Variability in Diabetic Microvascular Complications and Role of Glitpins</td>
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<td>Blood Pressure Variability How to Deal</td>
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<td>Cardiomyopathies– Clinical And Echocardiographic Evaluation</td>
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<td>Dual Antiplatelet Therapy</td>
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<td>Vitamin D Supplementation in each and Every Individual is Really Necessary?</td>
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<td>Hyperthyroidism; Relevant Investigations And Guidelines For Management</td>
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<td>Antipeptide Therapy for Post - PCI Patients, Current Trends and Future Directions</td>
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<td>Biosimilar in Rheumatology: Beginning of a new era</td>
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<td>Rheumatoid Arthritis, Treat to Target: Myth or Reality</td>
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<td>Diabetes: Exploring Beyond Glycemia</td>
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<td>Complications of Diabetes at Diagnosis in India - Challenges in Front</td>
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<td>Clinical Approach to a Patient with Diabetic Nephropathy</td>
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<td>Targeted Therapy for Cancer: New Approaches and their Clinical Applications</td>
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<td>CML: Current State-Of-The-Art Management</td>
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<td>Lymphoma: An Update For Physicians</td>
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<td>Endobronchial Interventions -Pulmonologists Perspective</td>
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<td>Uncommon Infection In Diabetes</td>
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<td>Is Clinical Examination Still Relevant</td>
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<td>Infective Endocarditis: Current Scenario</td>
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<td>Managing Different Clinical Dilemma Associated with Anti Platelets and Anti Coagulants in Contemporary Cardiology Practice: Case Based Discussions</td>
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<td>Asthma COPD Overlap: A Syndrome or a Phenotype?</td>
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<td>Sleep Disorder in Type 2 Diabetes - An Update</td>
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<td>Ranolazine, Ivabradine Current Use</td>
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<td>Antiplatelet Therapy - Dual vs Single, Which Agent And How Long?</td>
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<td><strong>Diagnostic Cardiology</strong></td>
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<td>B Kesavamoorthy, Thanjavur</td>
<td>Cardiovascular CT Angiography</td>
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<td>T Neelambujan, Tuticorin</td>
<td>Cardiovascular CT Angiography</td>
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<td>12.00-1.00 pm</td>
<td><strong>Brain - Gut - Liver Axis : Symposia</strong></td>
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<td>Rheumatoid Arthritis -How Chronic Inflammations Affect The Brain</td>
<td>CL Nawal, Jaipur</td>
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<td>Gut Brain Axis</td>
<td>Col Ravi Anadure, Bengaluru</td>
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<td>Gut-Liver Axis and the Microbiome</td>
<td>Air Cmde Bhaskar Nandi, Faridabad</td>
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<td>1.00 to 2.00 pm</td>
<td><strong>Medical for Internist</strong></td>
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<td>Optimal Medical Management in Heart Failure - What is that Really Means and the Reality</td>
<td>B Amirtha Ganesh, Puducherry</td>
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<td>B Amirtha Ganesh, Puducherry</td>
<td>Practical Approach to a Patient with Positive HBsAg</td>
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<td>Harpreet S Thukral, Amritsar</td>
<td>Progressive Left Ventricular Dysfunction - Clinical Approach</td>
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<td>Rajeev Rajput, New Delhi</td>
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**TIME** | **SUBJECT**
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11.00-12.00 pm | **Update Session**
| | Heart Failure in Elderly with Special Reference to HFpEF
| | Amandeep Kumar Sinha, Bhagalpur
| | Peripartum Cardiomyopathy
| | Mohit Dayal Gupta, New Delhi
| | Managing Coronary Artery Disease in Menopause - The Swinging Pendulum.
| | VN Mishra, Rajpur

12.00-1.00 pm | **Update Session**
| | Effect of Extremes of Temperature
| | HS Pannu, Ludhiana
| | Syndromic Approach to Pyrexia
| | PK Bhattacharya, Shillong
| | Macrophage Activation Syndrome
| | Rajesh Mahajan, Ludhiana

1.00 to 2.00 pm | **Update Session**
| | Management of Supraventricular Arrhythmias
| | Jitendra Singh, Jaipur
| | ECG - Non Ischemic ST Changes, Significance for Physicians
| | Kunal Sahai, Kanpur
| | Pregnancy and SLE
| | Prasanta Dhangia, Dibrugarh

2.00 to 3.00 pm | **Liver wellness symposia**
| | HCV Infection: Approaching Towards Cure
| | Sunil Dadhich, Jodhpur
| | Hepatopulmonary Syndrome
| | Gurinder Mohan, Amritsar
| | Asymptomatic Elevation of Transaminases
| | Sunita Aggarwal, Lucknow

3.00 to 4.00 pm | **Update Session**
| | Role of Steroid In Sepsis
| | Sandeep Garg, New Delhi
| | Diabetes & Tuberculosis
| | Sudhir Chandra Jha, Darbhanga
| | Programmatic Management of Drug Resistant Tuberculosis: Latest Guidelines
| | Mohanjeet Kaur, Ludhiana

4.00 to 5.00 pm | **Update Session**
| | Multiple Organ Dysfunction Syndrome (MODS) - Rational Approach
| | SV Raman Murthy, Rajahmundry
| | Management of Hypertension in Pregnancy
| | Kunal Kothari, Jaipur
| | Tropical Fever in Critical Care in India
| | Narendra Rungta, Jaipur

5.00 to 6.00 pm | **Medicine for Internist**
| | Drug Resistance – How to Suspect, How to Manage?
| | TK Soma, Alappuzha
| | Correlation of Peripheral Vascular and Coronary Artery Diseases
| | Archana Gupta, Gwalior
| | Artificial Sweeteners in Diabetes: How Safe?
| | Abhishek Pandey, Varanasi

6.00 to 7.00 pm | **Update Session**
| | Polypharmacy in Elderly
| | K Vijayakumar, Thiruvallu
| | Artificial Intelligence and Medicine
| | Srikanth Hegde, Shivamogga
| | Endoscopic Management of Obesity
| | Rajoo S Chhina, Ludhiana

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**Workshops**

**TIME** | **TITLE**
---|---
10.00-1.00 pm | **Approach to Medicine - How to Remember & Mnemonics**
| Moderator: R. Rajsekar
| Faculty: Packia Mary Jerome

10.00-1.00 pm | **Common poisoning, Snake Bite and Scorpion Sting & management**
| Moderator: Shibendu Ghosh
| Faculty: Arulrajh, Joseph K Joseph, Debanu Ghosh
| Roy, Gurusaran Sidhu, Shirshendu Pal, Bawaskar, Spandan Bhadury

10.00 - 1.00 pm | **Newer Devices of Insulin Therapy & SMBG**
| Moderator: Banshi Saboo
| Faculty: Jyoti Dev, Prakash Keswani, Sunil Gupta, GD Ramchandani

2.00 - 5.00 pm | **Essentials of critical care for Physicians**
| Moderator: Subhash Todi
| Faculty: Jiggi Divatia, Rajesh Chawla, Rajeev Soman, Dilip Karnad, Rajesh Mishra

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**Sunday, 10th February, 2019**

**TIME** | **SUBJECT**
---|---
9.00-10.00 am | **Update Session**
| Interpretation of Pathological and Radiological Investigations by Primary Care Physician
| Surendra Daga, Kolkata
| Clinical Aspects of the Genetics of Diabetes
| Nihal Thomas, Vellore
| Lipoprotein A: In Indian Scenario
| SS Lakshmanan, Chennai

10.00-11.00 am | **Diabetes Symposia**
| Management options for Diabesity
| Rajeev Chawla, New Delhi
| Is it possible to reverse type 2 diabetes by nutritional intervention
| BM Makkar, New Delhi
| How to manage Insulin Associated weight gain in obese Type 2 Diabetes patients - A Challenge?
| Arvind Gupta, Jaipur

11.00-12.00 pm | **Medicine for Internist**
| Maturity onset Diabetes of the Young - Not so uncommon
| SM Bandukwala, Mumbai
| Palliative Care for the Elderly Patient
| Kauser Usman, Lucknow
| Zika Virus
| Tanuraj Sirohi, Murrut

12.00-1.30 pm | **API Award session**
| E. Merck Award for chest Diseases
| Dr. D.P. Basu Young Award for Cardiology
| Dr. N.J. Shah Memorial Award for Tropical Medicine
| Dr. V. G. Nadgoudha Best All India Annual Thesis Award 2018
| Dr. M. Aruna, Tirupati (1st prize)
| Dr. Riya M. Waghale, Nagpur (2nd prize)
| Awards Distribution
| API Awards (Poster and Oral presentation)
| APICON 2014 Ludhiana Original Paper Merit Award
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<td>Crohn's Disease - Newer Frontiers</td>
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<td>Management of Congenital Heart Diseases in Adult</td>
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<td><strong>Diabetes Update</strong></td>
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<td>Once-weekly Injectable option for adults with type 2 diabetes</td>
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<td>Surendra Kumar, Bikaner</td>
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<td>Perioperative Management in Diabetes</td>
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<td>Ranjith Unnikrishnan, Chennai</td>
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<td>Atypical Mycobacterial Infection</td>
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<td>Fever in the Immunocompromised Host</td>
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<td>Emerging and Re-Emerging Infectious Diseases - Indian Perspective</td>
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<td>Cushing's Syndrome - An Update In Diagnosis and Management</td>
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<td>Ankit Shrivastav, Ranchi</td>
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<td>Violence on Doctors - Time to Wake Up</td>
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<td>Low-Calorie Liquid Diet may Help Reverse Diabetes</td>
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<td>Pathophysiology of Diabetes Complications - Indian Perspective</td>
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<td>Diabetic Ketoacidosis</td>
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<td>Vasanth Kumar, Hyderabad</td>
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<td>Sudhir Varma, Patiala</td>
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<td>Indians Contribution in Medicine</td>
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<td>Revascularisation for Stable Angina</td>
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<td>Senthil Kumar, Chennai</td>
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<td>Neurocysticercosis – Indian Scenario</td>
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<td>The Ocular Gateway to Neurology</td>
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<td>R Lakshmi Narasimhan, Chennai</td>
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<td>Clinical Approach to Paraplegia</td>
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<td>A Clinical Approach to Polycythemia</td>
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<td>Shubha Laxmi Margekar, New Delhi</td>
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<td>Tuberculosis In Special Situation</td>
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<td>SM Mishra, Muzaffarpur</td>
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<td>Abdominal Tuberculosis - Whats New</td>
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<td>E-Physicians - How Internet is Changing the Medical Practice</td>
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<td>Hypoglycemia - Unawareness, Cognition &amp; Long Term</td>
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<td>Consequences - Some New Insights</td>
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<td>Piyush Jain, New Delhi</td>
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<td>Spondyloarthritsis</td>
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<td>Renu Saiyal, Jaipur</td>
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<td>Comparing Treatment Alternatives in Ankylosing Spondyritis</td>
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<td>Veerendra Singh, Faizabad</td>
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<td><strong>Hematology Symposium</strong></td>
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<td>Sickle Cell Crisis - How to go Forward?</td>
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<td>Srikanth Kumar Dhav, Bhubaneswar</td>
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<td>G-6PD Deficiency: Under-Diagnosed Entity in Physician's Practice</td>
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<td>Plan of ART in 2018</td>
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<td>Pradeep Kumar Mohanty, Burla Sambalpur</td>
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<td><strong>HIV Symposia</strong></td>
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<td>HIV-HCV Coinfection Management Pre DAA and DAA Era</td>
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<td>Lokesh Singh, Imphal</td>
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<td>HIV Drug Resistance and Second Line of ART</td>
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<td>Niteen D Karnik, Mumbai</td>
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<td>HIV and Hepatitis B Virus Co-Infection : An Overview</td>
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<td>Vinay Rampal, Jammu</td>
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<td>Current Management of Leptospirosis</td>
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<td>Nagesh K, Hassan</td>
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<td>A Contemporary Overview of Urinary Tract Infection</td>
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<td>Health Benefits of Sahaja Yoga</td>
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<td>Approach to Arterial Blood Gas Analysis</td>
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<td>C. Sridhar, Chennai</td>
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<td>Current Status of Immunonutrition in ICU</td>
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<td>Subhak Dixit, Pune</td>
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<td>Noninvasive Ventilation Empowering the Physician</td>
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<td>Atrial Fibrillation- Advances in Treatment</td>
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<td>Ananda Bagchi, Kolkata</td>
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<td>New Calcium Channel Blockers</td>
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<td>Pravin Kalvit, Bilaspur</td>
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<td><strong>Hot topics of Diabetes</strong></td>
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<td>Is A1c a Robust Biomarker of Diabetes Complication</td>
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<td>Metformin for Diabetes- Old is Gold</td>
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<td>Sanjay Dash, Talcher</td>
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<td>Tips of Managing Diabetic Foot</td>
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<td>Thyroid-Diabetes- Lipids: A Triangular Link</td>
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<td>The Clinical Recognition of Endothelial Dysfunction</td>
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<td>Thrombosis in Young Adults: Clinician’s Approach</td>
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<td>Aluminium Phosphide Poisoning</td>
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<td>9.00-10.00 am</td>
<td><strong>Metabolic Symposia</strong></td>
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<td>Interpreting Bone Density for Physicians</td>
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<td>Indira Maisnum, Kolkata</td>
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<td>Metabolic Syndrome &amp; Cardiovascular Risk : Indian Perspective</td>
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<td>PCOS-An Insulin Resistance Syndrome</td>
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<td>Sarita Behera, Cuttack</td>
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<td>Etiology, Clinical Profile in Cortical Venous Thrombosis</td>
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<td>Amar Pazare, Mumbai</td>
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<td>Neurological Involvement in Dengue</td>
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<td>Ashok Kumar, Ghaziabad</td>
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<td>Vertigo-and what is New in it from the General Physician’s Perspective</td>
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<td><strong>Tropical Disease Update</strong></td>
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<td>KG Sajeethkumar, Kozhikode</td>
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<td>Malaria in India: Challenges and Opportunity in Today’s Scenario</td>
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<td>Tropical Fevers – A Case Based Approach</td>
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<td>Health Problems in Health Care Workers</td>
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<td>Hypokalemic Periodic Paralysis</td>
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<td>Ajay Agrawal, New Delhi</td>
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<td>Disseminated Intravascular Coagulation</td>
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<td>Obesity Among School Children</td>
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<td>Gopal Bharani, Vellore</td>
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**Postgraduate Quiz**

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<td>9.00-12.00 pm</td>
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A Study on Thyroid Profile in HIV Infected Patients in Gandhi Hospital
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Introduction: Acquired immunodeficiency syndrome (AIDS) may directly or indirectly affect any end organ system including endocrine system. High prevalence of abnormalities in thyroid function tests is reported in previous cross sectional studies. Subtle thyroid dysfunction is common, believed to occur in as many as 35% of all HIV infected individuals. Prevalence of overt primary hypothyroidism in the general population and HIV infected individuals from different studies has been reported to be 0.3% to 0.6%. There is insufficient evidence to define hyperactive thyroid function or asymptomatic HIV infected individuals. Hence we have studied a spectrum of newly diagnosed HIV + patients and HIV seronegative patients who are not receiving HAART to know the abnormalities of thyroid function tests in correlation to CD4 counts.

Materials and Methods: Cross sectional study, study population of 55 patients attending outpatient and inpatient department of general medicine and ART centre in Gandhi hospital. Subjects having HIV serology positive by all the 3 kits of Multitest E IAIDS-BS and HIV Tri-dot antigen kit and not on HAART are included.

Results: Out of the 55 individuals 29% were between 20-30 yrs of age, 53% between 31 – 40 yrs of age, 15% are between 41-50 yrs of age, 4% are above 50 yrs of age. Out of 55 individuals 38% are males and 62% are females. We found that there was an inverse correlation between CD4 counts and TSH (r = -0.601; p < 0.05), positive correlation between T4 and CD4 counts which was not significant (r = 0.094; p>0.05), inverse correlation between T3 and CD4 counts which was not significant(r =-0.229; p>0.05).

Conclusion: High TSH is common as CD4 counts decreases. TSH is inversely related to CD4 counts. No significant relation between T3, T4 and CD4 counts. Among the thyroid dysfunction subclinical hypothyroidism is common.

Autoimmune Polyendocrine Syndrome
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Introduction: Objectives: autoimmune polyendocrine syndromes are a heterogeneous group of rare diseases characterized by autoimmune activity against more than one organ system. In type 1 APS, presence of at least two out of the following three conditions is required: (1) Hypoparathyroidism, (2) Addison’s disease, (3) Type 1 diabetes. The presence of multiple autoimmune endocrinopathies defines APS type 2.

Materials & Methods: 15/15 K/O Diabetes Mellitus detected 1 year back on insulin with poor compliance, presented with sudden onset breathlessness, vomiting, giddiness for 1 day. High fever for 4 days. She also had swelling in feet along with easy fatigability & cold intolerance for 4 months. O/E: she was thin built, malnourished, febrile, dyspnoeic, tachypnoeic, dehydrated. Had a diffuse swelling in feet with moves with doglegation. Her CBG was too high, ketone positive, elevated Total Count, Thrombocytopenia. Urine C&E;Coli growth. T3/T4 were low with high TSH. UG neck showed thyroïditis. Anti TPO & thyroglobulin antibodies were positive. Further proceeded with autoimmune workup. ANA, Anti GAD-65 antibodies positive, Anti SS-A & Anti rNP positive. Anti Ds DNA negative. Suspecting APS further proceeded with Sr cortisol which is normal. She also had hypocalcemia with low normal PTH level.

Results: With these features- TDMA; Auto Immune Thyroïditis with features of hypoparathyroidism the case was confirmed as AUTOIMMUNE POLYENDOCRINE SYNDROME Type II.

Conclusion: A case of TDMA with autoimmune thyroïditis and thyrorsytosis presenting as DKA with features suggestive of autoimmune polyendocrine syndrome type II.

Echocardiographic Assessment in Patients of Thyroid Dysfunction
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Background & Objectives: Thyroid diseases are among the commonest endocrine disorders worldwide. Hyperthyroidism and hypothyroidism are known to affect cardiovascular system in number of ways. Cardiovascular adverse changes start very early in the course of thyroid dysfunction and may remain undiagnosed. The current study was conducted to evaluate the 2D-Echo changes in thyroid dysfunction.

Materials & Methods: This study was a cross sectional study, conducted in the department of general medicine, Dr. Prabhakar Kore Hospital, KLE University, Belgaum. The study included 50 adults, aged above 18 years, with thyroid dysfunction. The data collection for the study was done between 1st January 2017 to 31st December 2017 for one year. All the patients were subjected to free T3, Free T4, Free TSH and two-dimensional Echocardiography.

Results: The mean age of the subjects was 39.18 ± 14.32 years with higher female preponderance. 4 participants (19.04%) had pulmonary artery hypertension, and 2 (9.52%) participants had dilated cardiomyopathy. Among the people with primary hyperparathyroidism, participants had type 1 diastolic dysfunction, 4 (26.67%) participants had pericardial effusion, 3 (20%) participants had pulmonary artery hypertension, and 2 (13.33%) participants had normal. Among the people with subclinical hyperthyroidism, 8 (33.33%) participants had type 1 diastolic dysfunction, 6 (40%) participants had normal (26.67%) participants had pulmonary artery hypertension.

Conclusions: The study has highlighted the profile of cardiac dysfunction among different types of thyroid disorders. It is vital to perform detailed cardiological evaluation in patients with known thyroid disorders to detect cardiac complications in time.

Bardet-Biedl Syndrome presenting with Hepatic Involvement- A Rare Entity
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Introduction: Bardet-Biedl Syndrome (BBS) is a rare autosomal recessive disorder. It was first described by Bardet and Biedl in 1920. Retinal Dysplasia is present in all cases of BBS. In 1999, modified diagnostic criteria were defined. BBS is diagnosed in patients who have 4 primary criteria or 3 primary and 2 secondary criteria.

Conclusion: BBS is a very rare syndrome involving multiple organs with no definitive treatment.

A Rare Case of Seizure
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Hypernatremia as a cause of seizure is frequently encountered in the emergency department.

We report a case of a 40-year-old male who was brought to the emergency department with seizures. Initial investigations revealed hypernatremia. Upon correction of sodium he improved gradually, and the episodes of seizures got terminated.

His history was remarkable for excess urination and excess of water consumption. He had similar episodes of seizures for 3 months.

Upon further evaluation, we found out the cause for hypernatremia was Psychogenic Polydipsia secondary to Obsessive Compulsive Disorder (OCD).

The patient was prescribed antidepressants and he was doing well on follow-up.

Therefore, one must evaluate for the cause of hypernatremia while treating such cases so that the root cause can be corrected and therefore specific treatment can be given.

A Rare Case of Acute Pancreatitis “Ectopic Parathyroid Anenoma Presenting As Acute Pancreatitis”
Koushik Madhavi
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Introduction: Ectopic parathyroid adenomas, although not so common are occasionally seen in clinical practice. They arise due to abnormal migration especially of inferior parathyroid glands during embryogenesis. These ectopic parathyroid adenomas cause primary hyperparathyroidism characterized by excessive secretion of parathyroid
A Rare Case of Seizures V Sairakan
Osmania Medical College, Hyderabad, Telangana

Introduction: Jangirah, 30 year old male patient presented with complaints of multiple episodes of seizures since 2 years. Last episode a day before presentation. Seizure was of Generalized tonic clonic type. History of tongue bite was present. It was not associated with loss of consciousness. No history of head injury, alcohol intake, flexure, drug intake. C/O tingling sensations in the limbs since 2 years associated with intermittent spasms of face and hand. No history of wash basin attack. C/O pain in the right shoulder with gross limitations in the movements at the shoulder.

Past History: History of diarrhea over the past 2 years (increased stool frequency, watery in consistency) and off, decreased over the past 3 months. No h/o CAD, CVA, TB, Asthma, HTN, DM.

Family History: No similar complaints among other members of the family.

Personal history, Developmental history. Drug history: Mixed diet. Patient was on Phenytoin 100mg 1-0-2.

General Examination: Conscious, Coherent
Ht: 170cm Wt: 50kgs BMI: 17.3kg/m²
Palor +nt
Chevekst sign: Positive
Troussau sign: Positive

Vital Data : Temperature : Afebrile, Pulse 92/min, BP:100/80mmhg, RR: 18/min.

CNS Examination : Pupils B/L NSRL, EOM normal, No focal neurological deficits, No signs of meningeval irritation, No evidence of papileledema on fundoscopy.

Investigations (day 1)

Complete blood picture: HB: 11g/dl, Wbc: 7000/mm³, Platelet: 2.5 lakhs/mm³, MCV 70fl, Peripheral smear: Microcytichypochromic anemia.

Iron studies: Serum ferritin: 25mg/ml,Transferrin saturation 14%.

LFT: Sr albumin 2.8 gm/dl, SGOT 480UI/L, SGPT 252UI/L, ALP 108IU/L, Total Protein: 5.8gm/dl.

RFT: Sr Creatinine 1.6mg/dl, Urea 68mg/dl, K+ 4.5meq/L, Na 130moeq/L, Ca2+: 4.86meld/l (corrected calcium 5.69), Po4 3.88mg/dl.

Sr Magnesium: 1.3, 24 Urine Magnesium: 8.4mg/24h.

iPTH: 0.089pg/ml.

ECG: Global ST depressions with T wave flattening.

ANA: Negative.

CUE: Pale yellow, acidic, SG 1.020, Glucose - Nil, Albumin-trace.

USG Abdomen: Liver measures 13cm, normal in ectochutexture, Spleen-normal in size, No free fluid in the abdomen.

Lipid profile: Normal.

Thyroid function tests: Normal.

2D ECHO: Normal.

UCG endoscopy: Gastric mucosa normal. No evidence of worm infestations.

Multiple biopsies taken.

Boneal biopsy: Section studied showed fragmented bits of mucosal tissue with partial villous atrophy and crypt villous ratio 1.1. There is increased intraepithelial lymphocytes. Lamina propria shows lymphoplasmacytic cells. No evidence of granulomas. Impression: Cellular disease may be considered.

IgA anti TTT: POSITIVE

X-ray Right shoulder: S/O posterior dislocation of the head of the humerus.

CT Brain : Normal.

A Rare Case of Precocious Puberty- Hypothalamic Hamartoma
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Introduction: A hypothalamic hamartoma (HH) is a heterotopic mass in the nervous system, located near the posterior hypothalamus, the tuber cinereum and the mamillary body. Children with HH may suffer from central precocious puberty (CPP), gelastic seizures, both, or be asymptomatic. HH is responsible for 14 to 36% cases of organic CPP. One such rare case of precocious puberty associated with hypothalamic hamartoma has been encountered. The main objective of this poster is to evaluate the etiology of this precocious puberty and its management.

Report: Tharan 7 yrs boy came with chief complaints of development of facial hair, increase in penile length, testicular enlargement, growth acceleration since 2 years. H/o poor self esteem / poor scholastic performance, social detachment / aggressive behaviour, H/o spells of laughter associated with tonic clinical movements since 2-3 years with loss of consciousness /bowell /bladder incontinence, frequency initially was 1-2 episodes now 3-4 times per day.Duraiton of spell lasting for 2-5 minutes. On investigation Serum FSH- 1.36 uIU/ml (1.5 to 12.4 uIU/ml), Serum LH - 2.93 uIU/ml (Prepubertal < 0.3 mIU/ml), Serum Testosterone – 277ng/dl (Prepubertal <50 ng/dl), Serum TSH – 2.79uIU/ml (0.3 – 4.5uIU/ml). MRI Brain shows Evidence of 22 x 14 x 19mm measuring well defined T1 isointense, T2 FLAIR mild hyperintense mass showing no restriction on diffusion in the midline in the region of tubercinerun.

Conclusions: With the above clinical presentation of patient and further investigations, we diagnosed it to be a rare case of precocious puberty – hypothalamic hamartoma.

An Interesting Case of Hypokalemia
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Ectopic Cushing syndrome is a form of Cushing’s in which a tumor outside the pituitary gland produces adrenocorticotropic hormone (ACTH).

Presentation of case: Here we present a case of a 75 year old female with No previous illness/co-morbidities h/o generalised puffiness of 2 months duration,Consulted a nearby clinic was started on terosime 10 mg/day, Edema not setting, has generalised weakness Was admitted for evaluation.

On examination
Pitting pedal edema.Facial puffiness Elevated bp 160/100mm Hg

Investigation revealed severe Hypokalemia

Initial impression: Anasarca ? Cause, Diuretic induced hypokalemia.

Diuretic stopped.

Potassium correction started- K not getting corrected. Hypomagnesemia correction done, still had refractory Hypokalemia.

Further investigation : ACTH dependent Cushing’s Imaging. MRI Pituitary – no mass.
Introduction: In chronic kidney disease (CKD), as the glomerular filtration rate (GFR) falls, possibility of developing clinical and subclinical hypothyroidism is higher making more challenging for the clinician to timely diagnose and treat it.

Methodology: A prospective study was performed in Coimbatore medical college hospital on non-diagnosis dependent CKD inpatients (>18 years of age) from November 2017 to October 2018 to determine the prevalence of hypothyroidism.

Overt hypothyroidism: TSH level > 5.5 mU/L
Free T4 level < 0.89 ng/dL with clinical symptoms.

Subclinical hypothyroidism: TSH level > 5.5 mU/L
Free T4 level >0.89 ng/dL

Exclusion criteria: All subjects <18years, pregnant women, on drugs causing hypothyroidism, on antithyroid drugs presumable for hyperthyroidism.

Results

Discussion

• Among 300 patients, 49 (16.33%) had overt hypothyroidism, 86(28.67%) had subclinical hypothyroidism with no age and gender distribution variability.
• Every 10 ml/min fall in GFR will increase serum TSH level exponentially with Odd’s ratio being 0.65(stage-2) to 2.5 (stage-5) CKD- (p < 0.001), increasing incidence with coexisting diabetes mellitus.
• Dyslipidaemia, Hypercholesterolemia, Increased BMD, SBP seen in overt and subclinical hypothyroidism cases with significantly lower serum albumin, serum calcium, Microalbuminuria, and lower Mean HB. Thus correction of hypothyroidism improves the outcome in CKD anemia treatment.

Limitations

1. Low sample size,
2. Over-estimation of Hypothyroidism
3. Lacks measure of antithyroid antibody.

Conclusion: Inverse association between eGFR & hypothyroidism.

Formulate guidelines to screen population with lower Sr.albumin, Sr.calcium, hemoglobin levels, higher PTH levels for hypothyroidism and specific treatment can help in improvement.

Impact of exogenous thyroid hormone on incident CKD and progression.

Prevalence of Thyroid Dysfunction in Type 2 Diabetes Mellitus and its Relationship to Glycemic Control: A Hospital-Based Study from North-eastern India

Nilanjan Majumdar

Introduction & Objectives: Type 2 diabetes mellitus (T2DM) and thyroid dysfunction are interrelated by multiple mechanisms with one-third of diabetic patients having thyroid dysfunction. The objective of this study is to determine the prevalence of thyroid dysfunction in T2DM and to assess the relationship of thyroid dysfunction with glycemic control.

Materials & methods: Prospective, observational, hospital-based study on T2DM patients, attending a tertiary care hospital. Glycemic control was assessed by fasting, post-prandial glucose (FBG, PPBG) and glycated hemoglobin (HbA1c) and thyroid functions by thyroid stimulating hormone (TSH) and free levothyroxine (FT3) levels. T2DM patients with known thyroid dysfunction were excluded. Statistical analysis was done by Pearson rank correlation; p value <0.05 was considered significant.

Results: There were 171 T2DM patients with a mean age of 56.4±15.67 years, with 97 males and a male to female ratio of 1.31:1. Mean FBG, HbA1c, TSH and FT4 were 19.3±8.1 mg/dl, 4.6±3.28 µU/mL and 0.72±2.11 ng/dL respectively. Overall 65 (38.16%) patients had thyroid dysfunction, 42 (24.4%) with hypothyroidism (TSH>10 µIU/ml), 17 (9.92%) with subclinical hypothyroid (10>TSH>5.5 µIU/ml), 6 (3.81%) were hyperthyroid (based on TSH and FT4). The mean HbA1c was higher in both clinical (13.21±2.81) and sub-clinical hypothyroid (7.13±2.77) subjects as compared to normal (7.91±2.04), although it was not statistically significant (p>0.05). The Pearson Rank correlation, TSH had a weak positive correlation with FBG (r=0.34), suggesting no linear relation between these parameters. TSH and FT4 compared to Hba1c had no linear relationship (r=0.23, p=0.12 respectively).

Conclusion: More than one-third of T2DM patients had thyroid dysfunction, predominantly clinical hypothyroidism. However, there is no relationship between thyroid dysfunction and degree of glycemic control, suggesting that presence of thyroid disease does not affect glycemic control.

Prevalence of Thyroid Dysfunction in Diabetic patients: A Single Centre Study

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Introduction: Diabetes Mellitus (DM) and Thyroid dysfunction (TD) are the two most common endocrine disorders in clinical practice. Unrecognised Thyroid dysfunction may adversely affect the metabolic control and add more risk to an already predisposed scenario for cardiovascular diseases. The objective of this study is to find the prevalence of thyroid dysfunction in Diabetic patients and correlate the association between these of two endo-vascular disorders.

Material: This is a cross sectional study of 300 patients either attending OPD of RAMCHANDANI DIABETES CARE AND RESEARCH CENTER KOTA, who were assessed during March 2016-April 2017. The inclusion criteria are known cases of DM. All patients underwent clinical and laboratory evaluation in which Hba1c, Thyroid profile and Lipid profile were investigated.

Observations: The prevalence of Thyroid dysfunction in all diabetic patients was 28%. Out of 300 Diabetes Mellitus patients, the study of which 140 are males and 160 are females, 72% are euthyroid, 18% have subclinical hypothyroidism, 5.34% have clinical hypothyroidism and 4.66% have hyperthyroidism. Duration of diabetes had no relation with incidence of thyroid disorders. Patients with uncontrolled diabetes with micro vascular complication had subclinical hypothyroidism. Elderly population has more incidences. Subclinical hypothyroidism was more common among females.

Conclusions: We conclude that screening for thyroid disease among diabetic patients should be routinely performed considering the prevalence of new cases diagnosed and the possible aggravation of the classical risk factors such as hypertension and dyslipidemia, arising from an undiagnosed thyroid dysfunction.

Being Prepared for the Future!

Vasirreddy Nayanara Tarak, K Velayudhan

‘Senior Resident, Department of General Medicine, Mammanthi Medical College, Khamman, Telangana’ Professor, Department of General Medicine, Arjanta institute of Medical Sciences, Kochi, Kerala

Introduction & Objectives: To correlate the incidence of vascular events and insulin resistance in 30-40 years non-diabetic individuals. As we all know there has been an increasing surge of obesity and hence insulin resistance. We as physicians are masters of prevention and complications. Thus in an attempt to finding out an additional risk factor for vascular events like stroke, DVT or CAD we observed if there was any correlation between both.

Materials and Methods: Young south Indian population (n=100) who were clinically healthy and were not diabetic or a previously known Cardiace patients/peripheral vascular disease were recruited. Insulin resistance in these individuals was assessed at beginning of study by using HOMA-IR formula. These individuals were followed up for a period of 3 years for the occurrence of vascular events.

Results: Age adjusted population was taken. The 100 members were divided into groups based on their HOMAIR values. One group with normal insulin levels and the other with the increased HOMAIR levels. Both the groups were followed up for 3 years. Two individuals from the high HOMAIR IR values group developed DVT and one developed hemorrhagic stroke (P=0.005). This was found to be statistically significant.

Conflict of Interest: As this was a small study larger numbers are needed to conclude to see if this correlation needs to be addressed.

Study of Association between hsCRP Level and Glycemic Control in Adults with Diabetes Mellitus

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Introduction: Diabetes is a disease of antiquity. India is the birthplace of the capital of the world. Patients with diabetes are 2 to 4 times more likely to develop cardiovascular complications compared to the non diabetic population. hscrp (High sensitivity C reactive protein) is the most reliable marker to detect early inflammation. Hence by correlating glycemic levels and hsCRP level patients who are at a high risk of developing cardiovascular complications can be identified early.

Materials and Method: 100 patients with type 2 diabetes mellitus (DM) including both male and female attending the outpatient and inpatient department were taken into the study. They were grouped according to the HbA1c levels into three groups (7.7-9.9-10). Detailed clinical and laboratory data were collected. Analysis will be done to rule out various other conditions causing raised hsCRP levels.

Result: Out of 100 patients (36 females and 64 male), 29 had HbA1c <7, 38 had HbA1c between 7 to 9.9, 33 had HbA1c levels ≥10. Of the study population 38% had BMI (body mass index) ≥25 and 62% had BMI ≥25. 48 patients were found to have elevated hsCRP levels and 52 had hsCRP level within normal limit. Elevated hsCRP level was positively correlated with poor glycemic control (p<0.001).

Conclusion: In this study of 100 patients with type 2 DM,
• Elevated level of hscrp was positively correlated with poor glycemic control.
• It was also noted that there was a positive correlation between high hsCRP levels with age, BMI and duration of diabetes.
• There was no correlation between hscrp and the gender of the individuals.

A Case of Type 2 Auto-immune Polyglandular Syndrome Associated with DCMP and Abdominal Tuberculosis

Zorinpui Khiangte, Israrel Haque, Kumari Archana, Rahul Anand, Anjana Bulusu

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Introduction: APS is a rare condition characterised by the presence of immune dysregulation, endocrine glands and other non-endocrine organs. APS-2 is more common than APS-1 with a prevalence of 1 in 100,000 and gender bias occurring more in females with a ratio of at least 3:1. APS-2 often has its onset in adulthood with peak incidence of 20-60 years. The presence of 2 or more of
the following in the same patient defines the presence of APS. Type 2 diabetes reflects the hetero- pathologic, environmental, and metabolic abnormalities that can exist in different patients. In India, Thirty five million people have diabetes—a number that is double by 2025. To study diabetes mellitus awareness in diabetic patient and their family members., prevalence of diabetes in patients in and around Rewa was measured, and Show the pointers to early diagnosis, and therefore decrease morbidity associated with diabetes and factors affecting the awareness level in patient and their head Clinical Development – ROW, Girish Gudi 4, (DPP) inhibitors increases concentration of glucagon like peptide-1 and glucagon dependent insulinotropic peptide. It has been reported that addition of DPP-4 inhibitors is more effective than incremental dose of insulin.

Conclusion: Implementation of universal screening and primary prevention programs to detect diabetes at an earlier stage before development of complications.

Efficacy of Teneligliptin as an Add on to Insulin Monotherapy in Patients with Type 2 Diabetes Mellitus

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Veer Surendra Sai Institute of Medical Science and Research, Burla, Orissa

Introduction: Uncontrolled glycaemic status is an independent risk factor for macrovascular and microvascular complications. It is ultimately required by a substantial number of individual with type 2 DM. Some patients do not adequately achieve therapeutic goals with maximal dose of insulin. Dipeptidyl peptidase-4 (DPP) inhibitors increases concentration of glucagon like peptide-1 and glucagon dependent insulinotropic peptide. It has been reported that addition of DPP-4 inhibitors is more effective than incremental dose of insulin.

Objective: To find the efficacy of teneligliptin add on to insulin monotherapy in patients with uncontrolled type 2 DM.

Methods: It was a prospective open label observational study of 24 patients with inadequate glycaemic control with insulin. Keeping the baseline insulin dose fixed, teneligliptin 20 mg was added daily for a period of 12 weeks. The primary outcome measure was change in HbA1c, FBS and PPBS at 12 weeks. Teneligliptin was used as add-on treatment in patients receiving insulin as monotherapy respectively. From baseline to 12-weeks, FBS (8.81±1.28%) and PPBS (142.9±42.43mg/dl) was significantly lower (P<0.001).

Results:

Teneligliptin is a useful add on in patients of uncontrolled glycaemic status with insulin monotherapy.

Prevalence and Patterns of Thyroid Dysfunction in Chronic Kidney Disease

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Introduction: Thyroid hormone disequilibrium increases the morbidity and mortality of patients with Chronic Kidney Disease (CKD) also leading to a deterioration in the renal functions. Assessing the prevalence of the problem of thyroid dysfunction among patients with CKD will be more informative and early intervention can be undertaken.

Aims & Objectives: The primary objective was to study the prevalence of Subclinical Hypothyroidism (SCH) and Hypothyroidism (HT) in patients with CKD. Secondary objectives were to examine the association between Glomerular Filtration Rate (eGFR) with a rise in TSH and to identify specific populations of patients with Chronic Kidney Disease who are prone to developing HT/SCH.

Materials & Methods: It was a hospital based cross sectional study carried out over 2 years in a tertiary care hospital in South India. 302 consecutive patients with stable CKD visiting the Nephrology OPD were included and detailed history was collected and blood samples were taken for TSH, Free T3, Free T4, Urea, Creatinine. Mean age of the study group was 56.8 ± 15.2 years. 75.2% of the total study population was male. Point prevalence of thyroid dysfunction was 52.98%. 30% of the population had SCH. 30 patients were found to have Hypothyroidism amounting to 9.9%. Correlation co-efficient for the association between C-reactive protein and TSH was found to be 0.243. The RR for thyroid dysfunction was 0.342 (P<0.001). Prevalence of Thyroid dysfunction across the stages of CKD: Stage 1 - 16.7%, Stage II - 33.3%, Stage III - 37.3%, Stage IV - 58.3%, Stage V - 67.9% (P value for trend <0.001).

Conclusion: The prevalence of the thyroid dysfunction and SCH were found to increase with worsening stage of CKD and the trend was statistically significant. Serum TSH levels and Creatinine level and TSH levels and eGFR had a statistically significant positive and negative correlation respectively.

Two Cases of Hypotenazia with Diverse Presentation

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Introduction: Due to varied aetiologies, recurrent hypotenazia, thyroid dysfunction and hypoglycemia are an unusual and therapeutic challenge. Here we present two unique cases of hypotenazia.

Case Report: Case 1: A 45 year old female, presented with altered sensorium with prior history of multiple admissions in the hospital for hypotonazia. On admission she showed tachycardia, marked pallor and dehydration. Intra vitam, she fainted and hypotonazia was diagnosed. After correction of dehydration and hypotonazia she responded well to treatment and got discharged. After discharge she continued hypotonazia and recurrent hypotonazia with episodes of tachycardia and hypotonazia. On admission again she was found to be dehydrated and hypotonazia. She was treated with intravenous fluid therapy and hypotonazia was found to be corrected.

Case 2: A 39 year old female was admitted with symptoms of urinary tract infection. She was conscious and well oriented, place and person but had history of recurrent hypotonazia. Her ANA however was negative and thyroid profile suggested mild hypothyroidism. She was treated with steroids and supportive medications with which she improved.

Discussion: Thyroparathyroidism was initial presentation in both cases and later with clinical judgement and investigation, diagnosis of panhypopituitarism was made.

Conclusion: Cini and Panhypopituitarism is a rare entity but the possibility of panhypopituitarism should be kept in mind.

Diabetes

A Study to Assess Diabetes Awareness in Patients and their Family Member in and Around Rewa

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Bhair Bhan Singh3

1Associate Professor, RMS, 2Assistant Professor, Department of Medicine, S.S. Medical College, Rewa, Madhya Pradesh

Introduction & Objectives: The term diabetes mellitus describes a metabolic cum vascular syndrome of multiple etiology involving liver, kidney, pancreas, lungs (Microangiopathy) and large blood vessels (Macroangiopathy). Type 1 DM results from autoimmune beta cell destruction, and most, but not all, individuals have evidence of in-directed autoimmunity. Type 2 diabetes is not a single disease Many factors, alone or in combination, can cause hyperglycemia; thus, the complexity of the pathogenesis of type 2 diabetes reflect the hetero-pathologic, environmental, and metabolic abnormalities that can exist in different patients. In India, Thirty five million people have diabetes—a number that is double by 2025. To study diabetes mellitus awareness in diabetic patient and their family members., prevalence of diabetes in patients in and around Rewa was measured, and Show the pointers to early diagnosis, and therefore decrease morbidity associated with diabetes and factors affecting the awareness level in patient and their head Clinical Development – ROW, Girish Gudi 4, (DPP) inhibitors increases concentration of glucagon like peptide-1 and glucagon dependent insulinotropic peptide. It has been reported that addition of DPP-4 inhibitors is more effective than incremental dose of insulin.

Conclusion: Implementation of universal screening and primary prevention programs to detect diabetes at an earlier stage before development of complications.
with T2DM. This was a single Dose Pharmacokinetics study of Remogliflozin and Embatide (RE).

Methodology: 60 healthy volunteers received single dose of RE orally under fasted state (N=30) and fed state (N=30); subjects were evaluated in each state at 15 minutes and 250 mg calculated in this study. Three analytes were quantified in the plasma samples using a validated LC/MS/MS method.

Results: RE (GSK 189075) is inactive prophrag that rapidly gets converted to active moiety remogliflozin (GSK 189074), which further converted to active metabolite GSK 279792. Tmax achieved rapidly for all three analytes with median 0.5-1.5 hours. Under fed state, there was a slight delay in Tmax with the maxins ranging from 1.5 to 3 hours. The Cmax of all 3 analytes were comparable between fast and fed state at 100 mg and 250 mg with fast/fasted ratio ranging from 0.77 to 1.44 and 0.81 to 1.12, respectively. AUC of the active moiety, were comparable between fast and fed state at 100 mg and 250 mg with fast/fasted ratio ranging from 1.22 to 1.35. The metabolite’s and prodrug’s AUCs were slightly higher under fasted state. The T1/2 of Remogliflozin, GSK279792 and RE ranged from 1.5 hrs to 1.9 hrs, 2.3 hrs to 3.8 hrs, and 0.4hrs to 0.69hrs, respectively. Across dose levels and diet conditions, the active moiety (GSK 189074) showed the highest exposures, followed by GSK 279792, and the RE (GSK 189075) had the lowest exposure (53% of active moiety).

Conclusion: Remogliflozin showed favourable pharmacokinetic profile with near dose proportional and increase in plasma exposure. There was no clinically relevant difference in PK profiles between fasted and fed state at both dose (100 mg & 250 mg) levels. There were no safety concerns and no hypoglycemic events reported in the study.

Insulin Resistance and Beta Cell Function in Steroid Induced Diabetes
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Department of General Medicine, K.M.C., Manipal, Udupi, Karnataka

Introduction and objectives: Exogenous steroids (synthetic steroids) which are potent antiinflammatory agents are normally utilized in the treatment of acute and chronic illness. Their frequent use has resulted in increased coagulation process and impaired fibrinolysis. Having DM may also increase the risk of pancreatic neoplasm, with increasing incidence. DM or insulin resistance sensitivities are high (986, reference <36.4ng/ml) CT abdomen showed a lesion improved, with weight gain and control of sugars. There was reduction of mean FBS levels from baseline value of 177 mg/dl to follow-up value of 160 mg/dl [ p < 0.001],mean PPBS levels from 251.16 mg/dl to 217.84 mg/dl [p < 0.001] and mean HbA1c from 8.41 to 7.57(p<0.001).

By means of Pearson’s correlation testing, a positive linear correlation between improvement in depressive scale and improvement in glycaemic control was observed( p<0.05).

Conclusion: The frequency of depression among type2diabetics was found to be 42%. There was reduction of mean FBS levels from baseline value of 177 mg/dl to follow-up value of 160 mg/dl [ p < 0.001],mean PPBS levels from 251.16 mg/dl to 217.84 mg/dl [p < 0.001] and mean HbA1c from 8.41 to 7.57(p<0.001).

Materials and Methods: This was a hospital based cross sectional prospective study done over a period of one month at MS Ramaiah Medical College Hospital (KPD) diagnosed by GOL D criteria and TG/HDL ratio was calculated from Fasting lipid profile.To show TG/HDL ratio as a marker for insulin resistance.sensitivity analysis was done and area under ROC curve was used to ascertain whether TG/HDL can be employed as surrogate marker for insulin resistance.

A Diabetic Losing Weight: More than Meets the Eye
Priyanka Sinha, Rajeev Philip, N R Sharma
Panjab institute of Medical Sciences, Karol Bagh

Introduction and Relevance: Pancreatic neuroendocrine tumours represent an uncommon type of pancreatic neoplasm, with increasing incidence. DM or insulin resistance sensitivities are high (986, reference <36.4ng/ml) CT abdomen showed a lesion improved, with weight gain and control of sugars. There was reduction of mean FBS levels from baseline value of 177 mg/dl to follow-up value of 160 mg/dl [ p < 0.001],mean PPBS levels from 251.16 mg/dl to 217.84 mg/dl [p < 0.001] and mean HbA1c from 8.41 to 7.57(p<0.001).

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Discussion: Patterns in secondary/monogenic diabetes include:

Glucokinase MODY: Fastig hyperglycemia, mild hyperglycaemia 2hr – FPG usually less than 65

Type MODY: Maybe severe, progressive.Fasting usually normal, PP high, 2 hr – FPG usually more than 90

Conclusion: Endoscopic resection of the tumour was done, following which chromogranin level dropped to 746, glucagon assay done was 925 (50-200pg/ml). Skin lesion improved, with weight gain and control of sugars. Final diagnosis was neuroendocrine tumour: glucagonoma causing diabetes mellitus, necrotic migratory erythema, anaemia and weight loss
Cardiovascular Disease Risk and Lipid Lowering Therapy in Diabetic Subjects

Ramesh Kumar Baghel1, Keshav Singh2, Jyotendra Kumar Dandety1

1Professor, 2Associate Professor, RMDD, Department of Medicine, Shaym Shah Medical College and S.G.M.H, Rewa, Madhya Pradesh.

Introduction: Stroke occurs within the brain as a result of reduced blood flow to a focal area, resulting in an infarct. Early detection and treatment of stroke can improve outcomes. However, the risk factors for stroke are multifactorial and often associated with other chronic diseases such as diabetes mellitus.

Methods: A prospective observational study conducted in KIMS, Hubli where in 100 diabetic subjects and 100 nondiabetic subjects were included. The study was conducted in KIMS, Hubli where in 100 diabetic subjects and 100 nondiabetic subjects were included. The study was conducted in KIMS, Hubli where in 100 diabetic subjects and 100 nondiabetic subjects were included.

Results: Of the 200 subjects included in the study, 100 subjects were diabetic and 100 were nondiabetic. The mean age of the diabetic group was 54.3 years and that of the nondiabetic group was 50.8 years. The prevalence of hypertension was 60.9% in the diabetic group and 55.5% in the nondiabetic group. The prevalence of diabetes mellitus was 35.5% in the diabetic group and 12.8% in the nondiabetic group. The prevalence of obesity was 30.6% in the diabetic group and 23.3% in the nondiabetic group.

Conclusion: The study showed that diabetes mellitus increases the risk of ischemic stroke. Diabetic stroke patients had higher mortality and morbidity as compared to non-diabetic stroke patients. Hypertension, poor glycemic control, dyslipidemia, obesity, smoking and ischemic heart disease increase the risk of ischemic stroke. Thus, we can use glycemic control, HbA1C and duration of diabetes as a predictor of stroke. Screening of diabetic patients, better glycemic control is believed to reduce the risk of death after acute stroke.

Study of Stroke in Diabetes Mellitus and Nondiabetic Patients

Praveen Kumar Baghel1, Keshav Singh2, Jyotendra Kumar Dandety1

1Professor, 2Associate Professor, RMDD, Department of Medicine, Shaym Shah Medical College and S.G.M.H, Rewa, Madhya Pradesh.

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Study of Early Renal Dysfunction in Type 2 Diabetes with Special Reference to Serum Cystatin C Levels

Saloni Sinha1, Anurag Chaurasia2, Manoj Indurkar3, Rakesh Patel4

1RMDD, 2Professor, 3Associate Professor, 4Professor, Department of Medicine, Shyam Shah Medical College and SGMM, Rewa, Madhya Pradesh.

Introduction: Early detection of impairment of renal function is critical in the management of diabetic patients. Serum creatinine demonstrates an inadequate sensitivity, particularly in the early stages of renal impairment. Serum Cystatin C can be a useful marker in detecting early nephropathy in patients with normoalbuminuria.

Methods: Serum cystatin C levels and urine albumin levels were measured in 100 type 2 diabetic patients. Based on urine albumin excretion, patients were divided into 3 groups – Normoalbuminuria, Microalbuminuric and Macroalbuminuric. Cystatin C was calculated using CKD-EPI equations.

Results: A significant positive correlation was found between serum cystatin C levels and urine albumin levels. The mean serum cystatin C level was significantly higher in patients with eGFR<60 (1.60±0.81) compared to patients with eGFR≥60 (1.05±0.56) (p=0.001). Logistic regression revealed that serum cystatin C and e GFR cystatin are a significant predictor of outcome i.e. nephropathy in a given population. In ROC analysis, area under curve of cystatin C is 0.738 (p<0.001) which signify that serum cystatin can be a fair predictor of nephropathy.

Conclusion: Serum cystatin C could be a useful marker in detecting early renal dysfunction in type 2 diabetics.
Prevalence of Anxiety and Depression among Outpatients with Type 2 Diabetes Mellitus in a Tertiary Healthcare Centre

Ravi Kachroo,1 Anil Kumar, Arun Narayan, K Vishwanath2
Ramesh Medical College, Bengaluru, Karnataka

Introduction: Patients with diabetes are almost twice as likely to suffer from depression and anxiety as the general population but this often remains unrecognized and untreated. Depressive symptoms are associated with worsened blood glucose levels, diabetic complications, increased functional disability, worsened adherence to diabetes regimen, higher health care costs and increased mortality. Most studies of depression in diabetes are from the west. Therefore, it is relevant to establish the diagnosis of depression and anxiety in the Indian diabetic patient.

Objectives: To determine the prevalence of anxiety and depression among outpatients with type 2 diabetes in a tertiary health care centre.

Materials and Methods: 272 consecutive patients attending Medicine and Endocrinology OPDs were evaluated/duration of diabetes, family history, treatment and personal history. Detailed examination to detect diabetic neuropathy, autonomic dysfunction, retinopathy, PVD and investigations such as FBS, PPBS, HbAlC, fasting lipid profile, urinalysis, albumin/creatinine ratio, ECG were carried out. The data collection tools used were Hamilton anxiety rating scale and Hamilton depression rating scale.

Results: Out of 272 consecutive diabetics attending OPD in a tertiary centre it was found that 199 (58.5%) had anxiety and 139 (51.1%) had depression; 40 had mixed anxiety and depression. Of these, 40% had more than mild anxiety and 70% had more than mild depression. After multiple logistic regression analysis, it was found that variables such as age, neuropathy, nephropathy and alcohol intake were associated with anxiety. Factors like physical inactivity, PVD, nephropathy and smoking were associated with depression. Duration of diabetes was the common entity associated with both depression and anxiety.

Conclusion: This study emphasises the importance of diagnosing co-morbid anxiety and depression in type 2 diabetes and their treatment as both are significantly associated with poor glycaemic control, poor quality of life, non-adherence to treatment, higher rates of complications and substantially increases the health care costs.

Sexual Dysfunction Among Patients of Type 2 Diabetes Mellitus in a Tertiary Care Hospital – A Control Study

Ravi Kachroo,1 Anil Kumar, Ashwin Kulkarni
Ramesh Medical College, Bengaluru, Karnataka

Introduction: Diabetes is an important lifestyle-related disease in the current scenario. It causes multiple organ damage, with the kidney, heart and sexual dysfunction of limited sexual function being a major long-term consequence seen in males and females alike. The cause of dysfunction is multifactorial.

Material and Methods: 37 patients attending Medicine OPD for follow up of Diabetes Mellitus which was diagnosed for more than 6 months were recruited for the study and compared with 37 imprints not diagnosed with diabetes. Other end organ damage like neuropathy, nephropathy and retinopathy, was evaluated along with quality of glycaemic control using glycosylated Haemoglobin (HbA1c). Quality of Sexual life was assessed on Arizona Sexual Experiences Scale (ASEX) and data was analysed.

Results: 67.2% of the study population reported having impaired quality of sexual experiences. Dysfunction related to both orgasm and penile erection/vaginal lubrication was higher (ECO was carried out. The data collection tools used were Hamilton anxiety rating scale and Hamilton depression rating scale.

Conclusion: Sexual dysfunction is a very frequent complication of Diabetes Mellitus. The cause of sexual dysfunction is multifactorial. It is important to enquire about and rule out diabetes related sexual impairment in patients early on as early intervention indicates a better prognosis.
Introduction & Objectives: To study the presence of NAFLD among T2DM patients by ultrasonography and determine the prevalence of NAFLD among T2DM and the association between NAFLD and the duration of diabetes, DR, HbA1c and GGT, hsCRP, indicating increasing inflammation. Positive correlation between NAFLD and the incidence of T2DM was also found.

Methods: In our study we demonstrated the prevalence of NAFLD among T2DM patients and the correlation of NAFLD with the duration of diabetes, HbA1c, GGT, and hsCRP. NAFLD was diagnosed by hepatic ultrasonography. DIABETES AND METABOLISM, 38, 12, 2017.

Conclusion: There was a positive correlation between HbA1c and GGT, HbA1c and hsCRP, indicating increasing oxidative stress and inflammation in patients with poorer glycemic control. Higher the levels of HbA1c and GGT, stronger was the correlation between them. There was positive correlation between GGT and hsCRP in DM indicating linear relation between oxidative stress and inflammation.


Correlation of NAFLD with Microvascular Complications of Diabetes Mellitus Motij Kumar Dalai1, Pradeep Kumar Padhi, M Rupesh Kumar

Inclusion Criteria: Group I – Controls (n=35) Age and sex matched healthy subjects. Group II – Type 2 DM with good glycemic control and normal healthy controls and to show that oxidative stress (serum GGT) and inflammation (hsCRP) are associated with poor glycemic control.

Materials and Methods: Inclusion criteria: Group 1 – Controls (n=35) Age and sex matched healthy subjects. Group II – Type 2 DM with good glycemic control and normal healthy controls and to show that oxidative stress (serum GGT) and inflammation (hsCRP) are associated with poor glycemic control.

Conclusion: There was a positive correlation between HbA1c and GGT, HbA1c and hsCRP, indicating increasing oxidative stress and inflammation in patients with poorer glycemic control. Higher the levels of HbA1c and GGT, stronger was the correlation between them. There was positive correlation between GGT and hsCRP in DM indicating linear relation between oxidative stress and inflammation.

Glycemic Status Evaluation in de novo Diagnosed Type 2 Diabetes Mellitus (T2DM) Adult Indian Patients Tarang Shah1, Nilay Suthar2, Deepak Solanki3, Sabir Amdani4, Ravinder Tandel1, Rakesh Sharma1, Pavan Patel1

Aims & Objectives: To study the value of Glycated Haemoglobin(HbA1c) in Indian patients at the time of diagnosis of T2DM, in this way to know glycemic status of Indian patients with T2DM at the time of their first presentation and requirement of insulin therapy at the time of diagnosis.

Methods: From 1st July 2017 all patients attending our OPD are studied. Those patients, who are suspected to have T2DM on clinical grounds were subjected for further investigations. Fasting Blood Sugar(FBS), Post Prandial Blood Sugar (PPBS), HbA1c prior to any treatment for DM. All anemic patients and critically ill patients were excluded from study. FBS/PPBS were done with GOD/ PPO method & HbA1c was done with NGSP certified automated HPLC method in standard laboratory.

Result: Total 298 patients were diagnosed to have T2DM based on standard diagnostic criteria. In 14 patients HbA1c was not done due to financial constraint, hence excluded. Mean HbA1c was 10.39 with SD of 2.29. HbA1c was 29% in 189 patients (63.2%) and ≥10 % in 160 patients (53.5%). So, according to ADA Standards of medical care in diabetes diabetes had microvascular complications. Hence, 90% of newly diagnosed diabetics had positive family history. Out of 100 newly diagnosed diabetics 73% of the patients were overweight, 6% of them had hypertension, 27% of females had central obesity to compare to 14% in males.34% of the total patients had some infections at the time of diagnosis of DM with 29% of them having only symptoms of DM, 8% with only signs and 28% of them with both.22% of the patients had Retinopathy at the time of diagnosis of DM which BDR is more common accounting for 12%.10% of the patients had PDR.32% of the patients had diabetic nephropathy at the time of diagnosis of DM with 28% of them having incipient nephropathy.

Conclusion: About 41% of the newly diagnosed diabetes had microvascular complications, hence microvascular complications at the time of diagnosis of DM were high in our patient population, due to rapid increase in DM, to low socioeconomic status, poverty and lifestyle, signals physicians to have serious awareness about these microvascular complications and helps in prompting on further evaluation and appropriate intensive control of diabetes to prevent further complications.

Conclusion: HbA1c value in Indian patients of T2DM at the time of diagnosis of T2DM, Indian patients have very poor glycemic control, i.e. highly undisciplined glycemic status. We can label this as an awareness inertia.

Recommendation: To increase awareness in general population regarding diabetes and glycemic control early. To promote screening programs for early diagnosis of DM and initiation of early insulin therapy in T2DM.

Vitamin D Levels and Glycemic Control Shrut Bhattacharya, Srinivas M

Department of General Medicine, Rajarajeshwari Medical College and Hospital, Bangalore, Karnataka

Introduction: Vitamin D has been reported to have important roles in glucose metabolism through a) direct effect on insulin biosynthesis in pancreatic β-cells; b) enhancement of expression of insulin receptor in target organs. Vitamin D deficiency is associated with higher HbA1c levels which is an indirect marker of long term

Objective: To correlate color Doppler with color Doppler. For screening asymptomatic PVD in type 2 DM.

Materials and Methods: Study was observational study is conducted from July 2017 to May 2018 in the medicine OPD/IPD of DR BRAMH Raipur. Diabetic patients above age 40 years & asymptomatic regarding were screened in a consecutive manner by using ABI followed by pulse oximetry for screening PVD.

Result: Out of 162 subjects in total, 87(53.7%) were males and 75(46.3%) were females. Mean age was 58.4 ± 11.8 years. Number of cases (45%) were in the age group of 40-60 years. Hypertension was present in 25.9% (48.8%) used subjects tobacco, 54(33.5%) subjects were smokers. Hypercholesterolemia was present in 87% subjects while elevated TG and LDL were shown by 99.4% and 96.3% respectively. In our study we demonstrated the prevalence of NAFLD among T2DM patients and the correlation of NAFLD with the duration of diabetes, DR, HbA1c and GGT, hsCRP, indicating increasing inflammation. Positive correlation between NAFLD and the incidence of T2DM was also found.

Conclusion: Pulse oximetry is as good as ABI for screening of asymptomatic PVD in diabetic patient & it correlate well with color Doppler.

Serum GGT and hsCRP Levels in Patients with Type 2 Diabetes Mellitus with Good and Poor Glycemic Control

Shristi, Arun, Vishwanath

MS Ramiah Medical College, Bengaluru, Karnataka

Introduction & Objectives: To evaluate and compare serum GGT and hsCRP levels in Type 2 diabetes mellitus with good and poor glycemic control and normal healthy controls and to show that oxidative stress (serum GGT) and inflammation (hsCRP) are associated with poor glycemic control.
Aims: Examination of correlation of Vitamin D levels in Indian diabetic population in comparison to non-diabetic controls.

Materials and Methods: A sample size of 100 known diabetic patients in the age group of 20-80 years who fit into inclusion and exclusion criteria were taken for the study. Age and sex matched controls with normal blood glucose levels were also taken. For purpose of the study, the patients were divided into two groups—those with controlled sugar (HbA1c ≤7) and those with uncontrolled diabetes (HbA1c >7). Medical history, clinical examination, FBS, PPBS, HBA1C and Vitamin D estimation. Descriptive statistics were used for data analysis.

Results: The Vitamin D levels were <30ng/mL in 90% of those controls who had <10ng/mL of Vit D. There was no significant difference between the sexes.

Conclusion: More than 90% of non-diabetic Indians have <30ng/mL of Vitamin D. Thus >90% of the Indian uncontrolled diabetics had Vit D sufficiency. Controlled diabetics, on the other hand, had clearly higher levels of Vitamin D than the uncontrolled.

Aim: To study the pulmonary function tests in diabetic patients.

Materials and Methods: Total 165 patients with type 2 DM with or without Diabetic Retinopathy were based on clinical examination and subsequent radiological investigation. The participants were estimated. The participants were evaluated by an ophthalmologist for diabetic retinopathy and among those with DR, severity of DR was recorded.

Results: Prevalence of DR was 29.7% among the study population. Mean age of the study population was 54.22. Only 63% patients were taking regular medications. Age, Duration of diabetes, FBS values, PPBS and HbA1C values were having statistically significant association with prevalence of diabetic retinopathy. Mean uric acid level was 7.83, and there was statistically significant association between serum uric acid level and prevalence of diabetic retinopathy.

Conclusion: There is a statistically significant association between serum uric acid levels and diabetic retinopathy, and serum uric acid levels can be used as a marker to identify early microvascular complications of DM.

A Study on Correlation between Serum Ferritin and Glycated Hemoglobin in Type 2 Diabetes Mellitus

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Sri Devaraj UAS Medical College, Tamaka, Kolur, Karnataka

Background: Serum Ferritin, an acute phase reactant is a marker of iron stores in the body. Many recent studies indicate that increased body iron stores and subclinical hemochromatosis has been associated with the development of glucose intolerance, type 2 diabetes and possibly the development of diabetic retinopathy, neuropathy and vascular dysfunction. This study was carried out to examine and establish a relationship between Serum Ferritin with Type 2 diabetes mellitus and metabolic syndrome and to examine whether a correlation between S. ferritin and FBS, HbA1C and HbA1C values were having statistically significant association with prevalence of diabetic retinopathy. Mean uric acid level was 7.83, and there was statistically significant association between serum uric acid level and prevalence of diabetic retinopathy.

Method: 173 Subjects satisfying the inclusion and exclusion criteria were selected. S. ferritin, Hb, ESR FBS, PPBS, HbA1C were measured.

Results: Serum ferritin was significantly higher in diabetic patients when compared to normal controls. Serum ferritin had a positive correlation with increasing duration of diabetes.

Conclusions: Serum Ferritin was higher among cases than in controls group. Positive correlation was observed between HbA1c and Serum Ferritin among cases. Hence...
Prevalence of Frailty and its Association with Morbidity among Patients with Type 2 Diabetes
Rajesh R, Dominic Benjamin, Indu Nair
Bangalore Baptist Hospital, Bengaluru, Karnataka

Introduction: Diabetes is booming, and it also largely increases mortality. It is utmost to estimate its prevalence and morbidity, which is not done earlier in India

Materials & Methods: A cross-sectional study conducted in the Outpatient Department of General Medicine in the tertiary care hospital, inclusive of Diabetes of age 50 and above with at least 3 years duration

Results: Study is going on, will be completed before 31st December, 2018

Conclusions: As the study is on going, the prevalence of frailty in diabetes seems alarming, will be calculated by the end of study.

Study of Diabetic Distress Among Type 2 DM Using Diabetic Distress Scale
Gorepatil Harish Chowdary, Swati Deshpande, Richa Vijaykumar, Allinn Seetharamaraju Academy of Medical Sciences, Eluru, Andhra Pradesh

Introduction: diabetes is one of the most common metabolic disorders in the world. India has the largest number of diabetics population in the world & there will be more than 13 million diabetic population in India by 2040. It has been well understood that there is strong association between diabetes & depression. Diabetic distress refers to the unique, of ten hidden emotional burdens & worries that are part of the spectrum of patient experience when managing a severe, demanding chronic disease. High levels of DD have been significantly associated with poor glycemic control, poor self care, low diabetes self efficacy & poor quality of life, even after controlling clinical depression.

Cardiovascular Morbidity in Type II DM Patients with Non-Alcoholic Fatty Liver Disease
Priti Shahapure, Shampa Sharma
D.Y. Patil Hospital and Research Institute, Kadamwadi, Khopar, Maharashtra

Introduction & Objectives: Non-alcoholic fatty liver disease (NAFLD) commonly seen in diabetics is associated with increased cardiovascular (CV) risk. CV morbidity in diabetes with NAFLD is studied to enable the identification of patients needing further investigations. This is essential in view of limited resources and predominance of out-of-pocket expenses.

Methodology: This on-going study has enrolled 45 diabetic patients with NAFLD on ultrasonography, who after ethical approval and consent were assessed for CV risk with Carotid Intima Media thickness and echocardiography.

Results: CV morbidity was noted in 53.3% patients. Significant positive association was noted between abnormal CMI and age (r=0.846; p<0.01). Simple Linear Regression revealed 20% of the variation in age ascribable to CV morbidity was significantly correlated with NAFLD Fibrosis Score (p<0.05). Model to predict the possibility of CV morbidity was highly significant with 26% of variability of the CV morbidity being explained by Albumin, Platelet and Age (F.3, 416) 239; p<0.001.

Conclusion: The use of simple variables like age, platelet count and serum albumin in early identification of diabetes with NAFLD at increased CV risk has practical implications. This would enable a more cost-effective utilization of diagnostic resources, a matter of great importance in a society where health is funded by out-of-pocket expenses to a great degree. Of the variables, when age is a demographic detail, platelet count is readily available in the complete blood count done routinely. The report of serum albumin would thus be adequate to enable selection of patients who must be investigated for CV morbidity.

B12 Deficiency and SNHL: A Case Control Study
Ankansa Gupta, Jay Kirtani, Sujeet Jha
Max Superspeciality Hospital, Saket, New Delhi

Introduction: Gestational diabetes is a common medical condition in pregnancy. ADA defined it as any degree of glucose intolerance with onset or first recognition during pregnancy.

Aims and Objectives: To estimate the prevalence of diabetes in pregnancy and to assess fetal and maternal outcomes.

Material and Methods: All pregnant women with estimated gestational age b/w 24th and 28th weeks attending ANC clinic were enrolled and consent was taken. Women who were diabetic were excluded from the study. The women were advised to take their regular diet for 3 days and to come to ANC clinic and observing overnight fast (at least 8 h for oral glucose tolerance test (OGTT)). The cases were closely followed up from the Gyna OPD and Endo OPD on their standard of care visits. Those who could not come to the clinics were called and took data from there.

Results and Conclusions: Prevalence of GDM in our Urban tertiary care centre was 7.4% based on IADPSG criteria. GDM risk increased significantly with increasing age, females > 30 yrs of age, poor prepregnancy weight >60 kg, BMI >30kg/m2, previous IUGR, F/B of GDM, b/f of GDM, bad obstetric history and hypothyroidism. GDM was related to complications during and after the pregnancy, macrosomic infant, oligohydramnios, development of preeclampsia, the mean birth weight of delivered babies and cesarean delivery were significantly higher for pregnant women with GDM
than those without GDM. Association of oesophageal delivery was higher in GDM. Major COI:
The main limitation of the present study is that it is a local, regional study. Therefore, the number of participants was limited.

Study of Cardiot Intima Media Thickness in Type 2 DM Patients and its Correlation with Glycemic Control and Inflammatory Marker hs-CRP
Abhishek Rathore*, Ashok Kumar*, Anupam Kumar Singh*, Aditya Sharma

Post Graduate Student, *Professor, **Assistant Professor, Department of Internal Medicine, Lady Hardinge Medical College and St John's Medical College

Background: CIMT and hs-CRS are well known as cardiac marker of atherosclerosis but there is paucity of data regarding their utility in non-smoker, non-hypertensives and cohort of diabetic patients. Aim: Cardiot intima media thickness in type 2 DM and its correlation with glycemic control and inflammatory marker hs-CRP.

Methods: 80 cases (Diabetic) and 20 healthy controls were recruited in this case control observational study. CIMT, hs-CRP, BMI, LDL, Hba1c, RBS, Lipid Profile and Blood sugar levels were recorded. B-mode ultrasound was used to compare change in CIMT and hs-CRP in case and control groups and the change scores were correlated with hs-CRP BMI LDL and HBA1C by pearson correlation.

All analysis was done on SPSS.

Results: The Hba1c Diabetics cases and healthy controls were correlated using Pearson's Correlation Coefficient (r= 0.36) respectively. CIMT was significantly correlated with hs-CRP in Diabetic patients (r = 0.56, 95% C.I. 0.41-0.68, p=0.0000000106).

Correlation of CIMT with Hb A1c (r = 0.3, 95%C.I. 0.12-0.47, p = 0.01) and hs-CRP with LDL was (r=0.12, 95% C.I. -0.07-0.31, p value = 0.2209)

Conclusion: CIMT and hs-CRS are well known as cardiac markers of atherosclerosis but there is paucity of data regarding their utility in non-smoker, non-hypertensives and cohort of diabetic patients.

Study of Pulmonary Function Test in People with Type 2 Diabetes
Tripti Mishra, S Dube, D Dave, Kapilkant Tripathi, TN Dubey, KR Kawre

Gandhi Medical College, Bhopal, Madhya Pradesh

Introduction and Objectives: - Type 2 diabetes mellitus (T2D) effects various organs of body causing micro and macrovascular disease. It is known to affect eyes, kidneys, heart, nerves and blood vessels, but its effect on lung which is a highly vascular organ, is not yet thoroughly studied. Previous studies have reported that pulmonary functions (PF) are compromised in T2DM and histopathological changes have been observed in lungs in T2DM. The current study was planned to assess PF (FEV1,FVC,FEV1/FVC, PEFR,MMEFR) in T2DM patients using spirometry and to compare them with age and gender matched healthy volunteers (HV).

Methods and Materials: This was an observational case control study in which 200 T2DM and 200 age and all the six right and left wall valves will be measured, and the average values will be noted.

B-mode ultrasound was used to compare change in CIMT and hs-CRP in case and control groups and the change scores were correlated with hs-CRP BMI LDL and HBA1C by pearson correlation.

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Study of Pulmonary Function Test in People with Type 2 Diabetes
Tripti Mishra, S Dube, D Dave, Kapilkant Tripathi, TN Dubey, KR Kawre

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Introduction and Objectives: - Type 2 diabetes mellitus (T2D) effects various organs of body causing micro and macrovascular disease. It is known to affect eyes, kidneys, heart, nerves and blood vessels, but its effect on lung which is a highly vascular organ, is not yet thoroughly studied. Previous studies have reported that pulmonary functions (PF) are compromised in T2DM and histopathological changes have been observed in lungs in T2DM. The current study was planned to assess PF (FEV1,FVC,FEV1/FVC, PEFR,MMEFR) in T2DM patients using spirometry and to compare them with age and gender matched healthy volunteers (HV).

Methods and Materials: This was an observational case control study in which 200 T2DM and 200 age and all the six right and left wall valves will be measured, and the average values will be noted.

B-mode ultrasound was used to compare change in CIMT and hs-CRP in case and control groups and the change scores were correlated with hs-CRP BMI LDL and HBA1C by pearson correlation.

All analysis was done on SPSS.

Results: The Hba1c Diabetics cases and healthy controls were correlated using Pearson's Correlation Coefficient (r= 0.36) respectively. CIMT was significantly correlated with hs-CRP in Diabetic patients (r = 0.56, 95% C.I. 0.41-0.68, p=0.0000000106).

Correlation of CIMT with Hb A1c (r = 0.3, 95%C.I. 0.12-0.47, p = 0.01) and hs-CRP with LDL was (r=0.12, 95% C.I. -0.07-0.31, p value = 0.2209)

Conclusion: CIMT and hs-CRS are well known as cardiac markers of atherosclerosis but there is paucity of data regarding their utility in non-smoker, non-hypertensives and cohort of diabetic patients.
very common disease today which leads to abnormalities of metabolic profile is vital for a diabetic individual. Most guidelines recommend a fasting serum lipid test. This is based on achieving consistency between patients and doctors, which is a large health issue in patients from economic and metabolic state. A fasting sample does not reflect the true biological state in which people spend most of their time. Hence we test the hypothesis that lipid change only minimally in response to normal food intake in individuals with diabetes mellitus. Objective was to study the effect of feeding trial on serum lipid profile values in type-2 diabetes patients.

Methods: A cross sectional observational study of 100 known diabetic patients with type 2 diabetes were included in the study. All patients were on treatment with 2-fulfilling inclusion and barring exclusion criteria was done. Qualifying patients underwent detailed history, clinical examination biochemical examinations including lipid profile. Study continued for 2 hours after normal diet intake lipoprotein profile including total cholesterol, triglycerides, HDL, VLDL, and LDL in study subjects.

Results: Statistical analysis was performed by student's t-test. P-values < 0.05 are considered statistically significant. In our study serum total cholesterol decreased 1.06% (p = 0.05) after hour & decreased 1.67% (p = 0.05) after 2hour of diet. Serum triglycerides increased 1.76% (p = 0.05) after 1 hour & 3.81% (p = 0.001) after 2 hour of diet. Serum HDL increased 0.96% (p = 0.05) after hour & 1.38% (p > 0.05) after 2hour of diet. Serum VLDL increased 1.73% (p = 0.01) after hour and 3.80% (p = 0.001) after 2 hour of diet and decreased 2.47% (p < 0.05) after hour & decreased 4.72% (p < 0.01) after 2hour of diet.

Conclusion: The postprandial state does not affect total cholesterol and HDL, but there is significant rise found in serum triglycerides, while LDL levels showed paradoxical decrease in post prandial state.

A Study of Effectiveness of Addition of Drug Teneligliptin to Metformin, Glimepride, Pioglitazone combination in Type II Diabetic Patients

Dilig Patel

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Introduction: Diabetes is a prevalent chronic disease and has reached alarming stage in almost all developing and developed countries. Worldwide, approximately four hundred millions of people are living with diabetes and it is a leading cause of death.

Aims and Objectives: To study effectiveness of addition of drug Teneligliptin to Metformin, Glimepiride, Pioglitazone combination in type II Diabetic Patients.

Methodology: This was a cross sectional study carried out in the department of Medicine of a tertiary health care centre during the one year period i.e January 2017 to January 2018 in the type II diabetic patients. Out of all type II diabetic patients 40 patients who were on the treatment for hypoglycemia with drugs Metformin (childhood), Pioglitazone were selected out of these randomly 20 patients were continued on the previous treatment (Group B) and remaining 20 were given additional drug Teneligliptin (Group A). The statistical analysis was done by unpaired t-test and chi-square test analyzed by SPSS 19 version of software.

Result: In our study we observe that The average age in both the groups was comparable i.e. 36.78 ± 6.42 and 38.92 ± 5.87 (p = 0.05) at 24,df=38), the sex ration was also similar in both groups i.e. 14.53% (p >0.05) in Group A and 14.53% (p >0.05) in Group B and The HbA1c was comparable at 1st Wk. 10 ± 4.56 - 9.87± 3.42 (p = 0.05) and 11.8 ± 5.67 ± 4.52 (p = 0.05, 1 ± 1.80, 4df=38) but significantly differed at 8th Wk. 7.12 ± 2.34 - 9.92 ± 3.56 (p = 0.01, t = 3.82,df=38), 12th Wk. 5.98 ± 1.98 - 9.24 ± 7.79 (p< 0.01, t = 4.26,df=38) respectively in Group A and B.

Conclusion: It can be concluded from our study that the addition of Teneligliptin significantly reduced the HbA1c level as expected. So it is better to use conventional Metformin, Glimepiride, Pioglitazone only combination treatment.

An Observational Study to Determine the Prevalence of Sexual Dysfunction in Patients with Diabetes in a Tertiary Care Centre in Northern India

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Introduction and Objectives: Sexual Dysfunction (SD) is common among both genders with diabetes mellitus (DM) and is considered as serious quality-of-life related health problem.

This study aimed to assess prevalence as well as type of SD in both genders with diabetes using international validated questionnaires in a tertiary-care centre.

Materials and Methods: A cross-sectional study was done using descriptive statistics on 340 patients (210 males and 130 females) attending department of Medicine and Endocrinology at a tertiary-care hospital, during the study period (Feb-Dec 2017). Those people who were known case of DM and aged above 30 years and were sexually active (Alteste 1 intercourse in last 1 year) were included in study. Detailed history from both genders was taken on socio-demography, past medical co-morbidities and baseline laboratory values. SD was defined as abnormal/insufficient sexual function with adequate stimulation in the absence of organic disease. SD was defined as an inability to achieve or maintain an erection sufficient for sexual intercourse. Both patients were assessed with IIEF-5 and the following tests.

Results: Of 340 participants, 58% of males and 69% of females had SD. There was significant inverse correlation of HbA1c with IIEF-5 score in both genders (p = 0.003, r = -0.32). There was significant positive correlation with HbA1c (p = <0.0001) in males. There was significant positive correlation with HBA1c (p = 0.0016) in females. Both SD and IIEF-5 score showed significant positive correlation with HbA1c and HBA1c in males and females (p = <0.001) in both. Significantly better results were found in females with SD of over 5 years of duration with IIEF-5 score and duration of diabetes.

Conclusion: It can be concluded that HbA1c and HBA1c is one of the serious factors that influence the quality of life in patients with diabetes mellitus. Further studies are needed to look into the effect of cardiovascular risk factors on sexual life.

To Study Relationship of Serum hsCRP with Type 2 DM, its Vascular Complications and Non-Diabetics

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Introduction and Objectives: C-Reactive protein (CRP) is one of the most sensitive markers of systemic inflammation and higher levels of High Sensitive CRP (hsCRP) have been reported in DM2 and possible role of inflammation in diabetogenesis and in insulin resistance. Our aim was to compare levels of hsCRP in DM2 with and without its vascular complications and healthy controls, its correlation with HBA1C and duration of diabetes, to find optimum cut off levels of hsCRP in DM2.

Materials and Methods: The study was conducted on type 2 DM with and without microvascular or macrovascular complications and non-diabetic healthy controls from April 2017 to July 2018. FPG, PPG, HBA1C and hsCRP were estimated. SPSS for Windows version22 software was used for statistical analysis. Chi2 or Fisher’s exact test was applied to compare frequency distribution. Student t test was applied to compare two independent means. Test of normality was performed before applying statistical test for significance. The area under curve (AUC) and sensitivity and specificity of HSCR levels in DM2 at various cut-off values were calculated.

Results and Conclusions: The mean hsCRP in DM2 without complications is 3.11±1.89 mg/l, with vascular complications is 4.5±2.74 mg/l while among controls is 0.93 ± 0.81 mg/l. A positive linear correlation was found between hsCRP with duration of diabetes (r = 0.20, p=0.044) and with HBA1C (r=0.55, p <0.001), p value was highly significant for all the biochemical parameters FPG,PPG and HBA1C. hsCRP levels were high in cases with high risk of developing cardiovascular diseases (CVD). Patients with high level of hsCRP may be used to prevent Type 2 diabetes mellitus, obesity and its complication in future.
Cardiology

Real world Azilsartan with Chlorthalidone Efficacy Assessment Study in Indian Hypertensive Patients. (RAAS-India-Diuretic Subgroup)
Subhash Sonawala, Uday Jadhav, Nasararu, KMK Reddy

Introduction & Objectives: USFDA approved use of Azilsartan + Chlorthalidone as Fixed dose combination in 2011 & India has approved it in 2018 for uncontrolled hypertension to achieve BP goal. However limited Indian evidence available for use of this combination.

Materials & Methods: Study initiated after obtaining Independent ethics committee (ECR/644/Inst/MH/2014) approval before commencement of the data. This is subgroup analysis of retrospective audit from RAAS-India study to generate real world evidence from prescription records of 35 centers across India. Azilsartan with Chlorthalidone as add on was analyzed for change in BP & tolerability on successive visits.

Results: As per inclusion exclusion criteria 128 patient data was eligible for analysis with mean age 61.1 years & sexes ratio Male:Female 1.1:1. Follow up duration on Mean day of 36 & 71 days respectively. Systolic BP was significantly reduced (p<0.001) at 1st & 2nd follow up visit compared to baseline (Mean SBP Baseline: 157.2 mmHg, Visit 1: 133.8 mmHg, Visit 2: 136.1 mmHg) Diastolic BP was significantly reduced (p<0.001) at 1st & 2nd follow up visit compared to baseline (Mean DBP Baseline: 97.8 mmHg, Visit 1: 84.2 mmHg, Visit 2: 82.7). No serious adverse events were reported. Weakness & giddiness was reported by 3 & 2 patients respectively.

Conclusions: Azilsartan with Chlorthalidone significantly reduced Systolic & Diastolic blood pressure in Hypertensive and was well tolerated.

Conflict of interest: None to disclose.

An Interesting Case of Multivalvular Heart Disease
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Background: Valvular heart disease has many causes. Here we report a case with rare cause for multivalvular heart disease.

Case Report: A 37 year old female born out of consanguineous marriage admitted with complaints of abdominal distension and both legs swelling for 1 month and progressive shortness of breath, class II to IV NYHA for 2 weeks. She denied chest pain, palpitations, syncope, jaundice and decreased urine output. History of surgery for umbilical hernia at 20 years of age. She was diagnosed to have taurocholate cirrhosis that lasted for 3 years duration at the antenatal period. No details available. History of gradual loss of vision in both eyes since childhood with corneal clouding. On auscultation Grade IV MDM with presystolic accentuation of heart and a pansystolic murmur was audible at left 4th ICS at mid clavicular line, pansystolic crepitations +. Abdomen: Soft, Not tender, No organomegaly and free fluid. CNS – Decreased tone in both upper and lower limb, power in both upper and lower limb proximally-⅖ and distally-⅒, no facial involvement. Other systems were normal.

Conclusion: We report the case of a patient with biopsy-proven Dilated Cardiomyopathy and Inclusion Body Myositis. The hypothesis of a pathophysiologic association between the two conditions is discussed.

Dilated Cardiomyopathy and Inclusion Body Myositis
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Introduction: Inclusion body myositis (IBM) is the most common inflammatory myopathy after polymyositis and dermatomyositis, in which cardiac involvement is relatively common, current evidences indicate that IBM is not associated with cardiac disease. We report the case of a patient with biopsy-proven IBM and dilated cardiomyopathy. The hypothesis of a pathophysiologic association between the two conditions is discussed.

Case Report: A 26 years old female who is known hypothyroid on thyroxine presented with complaints of dyspea, decreased urine output and bilateral leg edema, easy fatigability, weakness of both upper and lower limb muscles Proximal = distal, dysphagia +, No H/O muscle cramps/myalgia / diurnal variation of weakness.No similar complaints in the family. Clinically patient were dyspnoe ic,tachpnoeic,pallor,bilateral pitting pedal edema,facial puffininess,icteric vital-signs – BP = 90/60 mm Hg with inotropic support,PR _ 112/min RR – 26/min,SpO2_97 % with 2 liters of nasal Oxygen on flow. O2 : S152 heard, tachycardia + RS : Bilateral normal vesicular breath sounds, Bilateral basal fine crepitations. No pericardial friction rub. No organomegaly / free fluid. CNS-Dereased tone in both upper and lower limb, power in both upper and lower limb proximally-⅖, distally-⅒. Transthoracic echocardiogram revealed anaemia,raised total counts,ESR-85mm/hr. Renal function tests were normal. Patient was on normal PT,INR,CRP – Positive. Sr.LD 1466U/L Sr.CPK – 3434IU/L Sr.Cortisol-63.44ug/dl Tropion T were positive. Serum APA, ANA and ANA IgM were negative. Patient was on hydroxychloroquine 86.7% respectively with maximum area under the Receiver Operating Characteristic (ROC) curve (0.63335), p value being 0.004 and a highest positive and negative predictive value of 75.58% and 84.33% respectively compared to all other risk prediction algorithms.

MESA score 2015 was found to have the best predictive efficacy for predicting the risk of CAD in Indians.

A Registry of Rheumatic heart disease in South India. (On Going Project)
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Background: Diseases of the heart valves constitute a major cause of cardiovascular morbidity and mortality worldwide with rheumatic heart disease (RHD) being the dominant form of valvular heart disease (VHD) in low grade fever, arthralgias, anorexia & flu like syndromes (3) Thromboembolic events.Echocardiography remains the best diagnostic method & Surgical excision is the treatment of choice.

Conclusion: RA Myxoma is a very rare cardiac tumour and may present from an asymptomatic course to thromboembolic events leading to sudden death.Classic triad of Myxoma:

(1) Obstruction of bloodflow-Intermittent heart failure features (peripheral oema, ascites, hepatic congestion, pulmonary oedema, L-T wave, low grade fever, arthralgias, anorexia & flu like syndromes)
(2) Thromboembolic events
(3) Echocardiographic features

Case Report: RA Myxoma is a very rare primary cardiac tumour and is discussed.

Case Report:
Kartic Velavan, John Christopher
Kanyakumari Govt Medical College and Hospital, Nagercoil, Tamil Nadu

Background: RA Myxoma is a very rare primary cardiac tumour and may present from an asymptomatic course to thromboembolic events leading to sudden death. RA Myxoma is a rare cause of febrile episodes and may present from an asymptomatic course to thromboembolic events leading to sudden death.

Case Report: RA Myxoma is a very rare primary cardiac tumour and may present from an asymptomatic course to thromboembolic events leading to sudden death.

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Case Report: RA Myxoma is a very rare primary cardiac tumour and may present from an asymptomatic course to thromboembolic events leading to sudden death.
Suggestive of Myopathic pattern. MUSCLE BIOPSY-Sections show features of myofibres with centrally located nuclei. Muscle biopsy revealed scattered necrotic muscle fibres seen. Some of the myocytes exhibit intracytoplasmic vacuoles. Congo red stain negative for amyloid.

Diagnosis: Immunofluorescent studies were positive for IgM and C3 in dermal and subcutaneous tissues.

Treated with intraarticular injection of corticosteroid. Anti-failure measures, Anticoagulation with heparin and warfarin, Pulmonary hypertension, B-blockers, Thrombolysis were done using streptokinase 1 lac IU/hr for 24 hours. Thrombolysis was done using streptokinase 1 lac IU/hr for 24 hours. Patient was started on Tab. warfarin 4 mg od. Follow up: 4 months later, patient presented to us with complaints of easy fatiqueability associated with shortness of breath since 1 week. No history of cough, fever, chest pain, palpitations, syncope, bleeding manifestations, trauma, recent surgery or injury.

Examination: Patient is conscious, raised JVP. Pulse rate: 64/minute, BP-110/70 mmHg, CVS: normal ECG.

Case History: 23 year male patient presented with chief complaints of palpitations, easy fatiguability associated with shortness of breath since 1 week. No history of cough, fever, chest pain, palpitations, syncope, bleeding manifestations, trauma, recent surgery or injury.

Admission to the hospital: Patient was admitted to the hospital with complaints of palpitations, easy fatiguability associated with shortness of breath since 1 week. Patient was started on Tab. warfarin 4 mg od and advised to follow up with PT/INR. Follow Up: 4 months later, patient presented to us with sudden onset shortness of breath associated with orthoepnea since 1 day.

No history of poor drug compliance.

2 DECHO was done which showed stuck valve, PT-16.4 sec, INR-2.8, serum homocystine levels - 25.2 mg/dL. Thrombolysis was done using Streptokinase 1 lac IU/hr for 24 hours.

Patient was started on tab folvite 5 mg and continued on tab warfarin 4 mg OD. Patient is asymptomatic at present on regular follow up.

Correlation of ECG Changes with Coronary Angiography Findings in Patients of Coronary Artery Disease

Aim: Correlation of ECG changes with coronary Angiographic findings in patients of coronary artery disease.

Objective: To study the relation of incidence of different types of arrhythmia with type ACS and region of myocardium involved and its temporal relationship with onset of symptoms.

Materials and Methods: An observational prospective study of 82 patients diagnosed of acute coronary syndrome as per established criteria was conducted. Detailed clinical history, examination and ECG findings were tabulated and a correlation between type of arrhythmia with involved region of myocardium, type of ACS and risk factors was explored.

Results:

ACS type Unstable angina STEMI NSTEMI

Most common Sinus arrhythmia (24.32%) Ventricular premature complex (21.25%)

The distribution of patients according to TYPE of ACS showed that the majority of patients had UA (45.12%) followed by STEMI (31.70%), NSTEMI with AMI (15.85%) and IIWMI (7.31%). Prevalence of arrhythmia during ACS event was highest in STEMI, followed by NSTEMI and MI.

Arrhythmias were more common in anterior wall compared to inferior wall lesions.

Arrhythmias were more common within 4 hours of onset of symptoms. Majority of patients were treated with B-blockers (35.02%) followed by Amiodarone (34.15%).

Conclusion: The incidence of arrhythmia among ACS patients was 64.63%. VPC was most common type of arrhythmia. Majority of patients with ACS developed arrhythmias within 24 hours of onset of symptoms.

Arrhythmias were more common in elderly patients with statistically significant difference (P<0.05). The relationship between sex and arrhythmias showed no statistical difference (P>0.05). The arrhythmias were more common in anterior wall lesion as compared to inferior wall with no statistical significance (P>0.05).

There was no statistical significance between the type of ACS and type of arrhythmias.

A Study of Relation of Insulin Level on Left Ventricular Mass in Hypertensives

Khan Abdul Mannan Sattar, T Anil Kumar, V Krishnakumar, D Chatterjee

Introduction: Left ventricular hypertrophy (LVH) and insulin resistance are strong factors for cardiovascular diseases. The association of hypertension and insulin resistance (hyperinsulinemia) has been demonstrated as a part of metabolic syndrome. Hypertension has been established as leading cause of LVH. The role of hyperinsulinemia in the pathogenesis of LVH has been inconclusive from previous studies.

Aim and objective

1. To detect the relation between post-prandial glucose load and fasting insulin level

2. To study the correlation between LVH and insulin resistance

Methods: Study included 100 patients with hypertension, divided into 2 groups (LVH group and non-LVH group). The data of LVH group and non-LVH group were compared with respect to baseline characteristics and laboratory variables.

Results: The LVH group had significantly higher BMI, WC, BP, and insulin level than the non-LVH group. The LVH group also had a higher prevalence of diabetes mellitus, dyslipidemia, and family history of hypertension.

Conclusion: The study found a significant correlation between LVH and insulin resistance. The results suggest that hyperinsulinemia, a marker of insulin resistance, may play a role in the development of LVH in hypertensive patients.

Aim of the study:

To investigate the correlation between insulin resistance and LVH in hypertensive patients.

Methodology:

1. Selection of study participants: 100 patients with hypertension were selected for the study. The patients were divided into LVH group and non-LVH group.

2. Data collection: Baseline characteristics and laboratory variables were recorded.

3. Statistical analysis: The data were analyzed using SPSS software. The comparison of the two groups was done using t-tests and chi-squared tests.

Results:

- The LVH group had significantly higher BMI, WC, BP, and insulin level than the non-LVH group.
- The LVH group also had a higher prevalence of diabetes mellitus, dyslipidemia, and family history of hypertension.

Conclusion:

The study found a significant correlation between LVH and insulin resistance. The results suggest that hyperinsulinemia, a marker of insulin resistance, may play a role in the development of LVH in hypertensive patients.
A Study of Cardiovascular Disease in Patients with Advanced Chronic Kidney Disease: A Single Centre Experience

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Introduction: different studies have established the association between advanced chronic kidney disease and cardiac diseases. In addition different studies have identified that less than a third of the patients with advanced chronic kidney disease have identifiable left ventricular dysfunction. Nevertheless there are very limited number of studies regarding heart disease in chronic kidney disease in India. In the current study we tried to identify existing cardiac disease in Grade-4 and Grade-5 chronic kidney disease.

Materials and methods: ours is an observational study conducted in a tertiary care centre in Ranchi. Data was collected from the tabulation Microsoft Excel and for statistical analysis, IBM SPSS v. 22 was used.

Results: we observed total 123 patients. Among them 66 patients were males and 57 patients were females. 52% patients in this study had abnormal ejection fraction. 25.5% patients had increased jugular venous pressure. During cardiac auscultation, 18% patients had gallop rhythm, 19.6%patients had a haemuric murmur, 3.9% patients had pericardial rub and in 70.6%patients cardiac auscultation was essentially normal. ECG changes were observed in a fair number of cases.

Conclusions: One of the most common causes of death in chronic kidney disease patients is cardiovascular diseases. This study reflects this fact too. Cardiovascular diseases were common among the patients. Unfortunately, awareness regarding cardiovascular disease in chronic kidney disease is lacking, this needs more attention.

The Association between Platelet/Lymphocyte Ratio and Coronary Artery Disease Severity

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Introduction: Coronary artery disease (CAD) is the leading cause of morbidity and mortality in most industrialized societies. Inflammation plays a substantial role in the initiation and propagation of the complex atherosclerotic process that lies beneath the cardiovascular diseases. To date, platelet-lymphocyte ratio (PLR), a marker for inflammation, has been suggested to be a risk indicator of worse cardiovascular outcomes. Platelet to lymphocyte ratio is a new prognostic marker that integrates the risk prediction of these two parameters into one.

Objective: We aimed to explore the association between platelet to lymphocyte ratio (PLR) and the severity of atherosclerotic disease.

Materials and Methods: Clinical and laboratory data of 109 patients who underwent coronary angiography were evaluated retrospectively. Gensini score, which indicates the severity of atherosclerosis, was calculated for all the hypertensive patients. Patients with CAD were categorized as mild and severe atherosclerosis, according to their Gensini score. Twenty three patients with normal coronary arteries formed the control group. Mean PLR values of the three study groups were compared.

Results: The mean PLR of the severe atherosclerosis group was significantly higher (223.89 ± 41.56) than that of the mild atherosclerosis group (176 ± 45.82) and controls group (104.17 ± 22.47) (p<0.001). Also, PLR correlated positively with Gensini score in CAD patients. A cut-off value of 176.5 for PLR predicted severe atherosclerosis with 94.1 % sensitivity and 77.6% specificity.

Conclusion: Our study suggests that high PLR appears to be additive to the conventional risk factors and the commonly used biomarkers in predicting severe atherosclerosis.

Intestinal Electrocardiographic and Electrophysiologic Changes in Seizure Patients without Cardiac Symptoms

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Introduction & Objectives: A seizure is a paroxysmal event due to abnormal excessive or synchronous neuronal activity in the brain and can cause characteristic changes in the electroencephalogram (EEG). These changes in electroencephalogram can cause changes in cardiac microstructure and can cause changes in electrocardiogram (EKG) and echocardiogram (ECO).

Materials & Methods: We have taken 120 non-diabetic seizure patients (cases) and 62 non-diabetic patients without seizure (controls) for this study randomly and standardly lead Electrocardiograms and a Electrocardiographic (2D and M-MODE) examination performed in all of them in interictal period.

Results: Cases (85 males and 35 females) and controls (44 males and 18 females) had a mean age of 39.5±1.86 and 36.7±2.15 years; respectively. These two populations were also matched with respect to these following parameters (Height[m], Weight[kg], BMI[kg/m²], resting systolic and diastolic pressure [mm of Hg]). In univariate analysis, seizure patients (compared to controls) had significantly lower mean or PR interval[146±1.49 vs 151±2.14 ms; p=0.0145], QT interval[362±2.51 vs 372±1.57 ms; p=0.0019], QTC interval [422±5.14 vs 439±2.33 ms; p=0.0005], Ejection fraction[EF=63±11.06 vs 65±9.08 %; p=0.036], Fractional Shortening(FS) [34.65±0.43 vs 24±0.42%; p=0.0168]. Only 18 cases and 2 controls presented with sinus tachycardia and 4 cases presented with sinus bradycardia when EKG and ECHO was done and none of the cases and controls showed any other tachy or bradyarrhythmias. Among 94 patients of GTCS 5(5.31%) died while death was significantly higher in Status Epilepticus (26.67%) out of 3 patients.

Conclusions: Patients with epilepsy may be predisposed to disturbances of autonomic functions with subsequent cardiovascular events. Furthermore, life death was significant higher in Status Epilepticus (26.67%) out of 3 patients.

Conflict of Interest: The authors declare that there is no conflict of interest.

An Unusual Presentation of Native Valve Endocarditis

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Escherichia coli is a common pathogen for urinary tract infection(UTI).However septicaemia due to E.coli UTI leading to native valve endocarditis(NVE) is a rare scenario. We report a 56 year old female with no prior comorbidities, who presented with high grade fever and found to have UTI with E.coli growth in urine culture. During the initial phases the patient was febrile despite treatment with culture sensitive antibiotic. Her initial cardiac evaluation was normal. Subsequently her blood culture also grew E.coli and found to have new onset early diastolic murmur over aortic area. Transesophageal echocardiography(TEE) revealed vegetation over aortic valve with hypokinetic aortic root. She was treated with antibiotic therapy, following which she improved. Persistent fever following urosepsis while on appropriate antibiotic therapy in the elderly without any cardiac risk factors may be a sign of NVE and should prompt an investigation by echocardiography.

Gender Differences in Presentation and Risk Factors in Patients with Heart Failure

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Introduction & objectives: Heart failure(HF) is one of the leading cause of morbidity and mortality in India and worldwide. There are significant gender differences in the presentation and risk factors.Clinical guidelines should always reflect these gender differences and provide recommendations accordingly.

The objective of the study is to determine gender difference in heart failure in respect to symptoms(NYHA),clinical findings, underlying heart disease,risk factors,precipitating factors and hospital stay.

Materials and Methods: This was a cross-sectional study done in 150 In-patients in the Coronary Care Unit of St.John’s medical college hospital, Bangalore.

Results: Out of 150 patients, 85 patients(55.3%)had heart failure with reduced ejection fraction (HFrEF), HFpEF was found more commonly in males 56 out of 86 males(65.1%)while among females,only 27 out of 64 (42.2 %) had HFpEF(p=0.001).

Heart Failure with preserved ejection fraction(HFPEF) was found more commonly in females (54.7%)35 out of 61(55.7%).

53 out of 86 males(61.6%) had Ischemic heart disease & hypertensive heart disease was the commonest underlying heart diseases in females. The most common precipitating factors of HF among the studied population as a whole, was New onset MI. But among females hypertensive emergency was found to be the commonest precipitating factor.It was found that 59(92.2%)females and 62(72.1%) males presented with New york heart association (NYHA) Grade 4 dyspnea,suggesting that symptoms at presentation were worse in females(P<0.04). Comparatively females had longer hospital stays with a significant p-value of 0.009.

Conclusion: The study demonstrates that females with heart failure presented with more severe symptoms and required longer hospital stays. Cardioioreal syndrome was a common factor in patients with prolonged hospital stays and was relatively more common in females.

Left Atrial Clot or Not – A Tale of Masterful Disguise

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Background: A Middle aged male presented with acute onset dyspnoea of breath 15 days ago. Echocardiography revealed a case of LA clot with polyserositis, however cause of LA clot was not identified and referred to our hospital.

Result: A 52 year old male without any co-morbidities gave a history of breathlessness 15 days back, which was relieved by medication, ECHO showed concave upwards ST elevation in chest leads suggestive of Pericarditis and ECHO done outside showed mild anterior and posterior pericardial effusion with a clot in left atrium, and CT chest showed moderate pleural and pericardial effusion with basal atelectasis. Only positive hematologic finding was Elevated ESR. No valvular or ischaemic disease was made out, coagulation profile was normal, ECG findings were normal. Sputum AFB, sputum CBNAA negative, Mantoux was negative.

Conclusion: The patient was diagnosed with SCC esophagus, treated with esophagectomy, feeding jejunostomy, and planned for radiotherapy. Patient was evaluated for cause of pleural effusion and pericardial effusion and repeat echocardiography revealed a pericardial fistula.

Pericarditis as a presentation of Carcinoma esophagus is a rare entity. Only 25 documented cases are available. Pericardia Fistula is suggested as a possible cause. Sponataneous pericardial fistula is also rarely documented.

A case of esophagus mimicking a LA clot is also a rare and interesting presentation.
A Study of Association between QTd, Tp-e/QT Ratio and In-hospital Prognosis in Thrombolysed Acute ST-elevation Myocardial Infarction (STEMI) Patients

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Introduction: Both QTd and Tp-e/QT ratio have been linked to increased risk of arrhythmia and mortality. But significance of QTd in STEMI patients is not documented in all studies and Tp-e/QT ratio is a novel index which is useful in stratification in these patients. This study is aimed to determine the short term, in-hospital prognostic value of QTd and Tp-e/QT ratio in thrombolysed STEMI patients.

Methods: This is a prospective, observational study that included 100 patients. Relevant clinical data is collected. QTd and Tp-e/QT ratio is calculated from “at admission ECG” just before thrombolysis. Multivariate logistic regression analysis was done to determine the predictors of in-hospital outcomes. A p-value of <0.05 is considered statistically significant.

Results: The mean age of study population was 57.86 ± 12.24 with males:females ratio of 2.54:1. Mean value of QTd and Tp-e/QT ratio were 81.02 ± 10.4 ms and 0.27 ± 12.24 with males:females ratio of 2.54 :1. Mean value of fraction and KILLIP score of both groups were calculated and In-hospital Prognosis in Thrombolysed Acute MI had better outcome than patients with acute MI statistically significant.

Conclusions: Both QTd and Tp-e/QT ratio may serve as prognostic predictors of in hospital MACE independently but only Tp-e/QT ratio predicts patients with in-hospital all cause mortality in thrombolysed STEMI patients.

A Comparative Study of Left Ventricular Function among Acute Myocardial Infarction Patients with Normal and Low Serum Phosphate Levels

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Sawani Singh Medical College, Jaipur, Rajasthan

Introduction and Objectives: Biochemical changes following occlusion of coronary artery have been studied in many experimental models. There is an emerging hypothesis of a pathogenetic relationship between serum phosphate levels and myocardial performance post Myocardial Infarction(MI). The aim of this study is to compare the mortality among acute MI cases with normal and low phosphate levels using mean ejection fraction as a parameter of myocardial performance.

Materials and Methods: 64 eligible cases of acute MI (by clinical features, ECG and cardiac biomarkers) were divided into two groups, based on either low or normal phosphate levels. They were subjected to a detailed history examination and relevant investigations followed by 2D Echocardiography. The mean left ventricular ejection fraction calculated using the formula of KISSLIP. Two groups were calculated and data obtained was statistically analyzed.

Results: In this study mean ejection fraction in low phosphate serum patients was 32.4% with standard deviation of 5.7 and in normal serum phosphate patients was 38.3% with standard deviation of 7.3. The difference of mean ejection fraction of two groups was 5.9%, which was significant (p<0.001). 37.5% low phosphate group patients had KISSLIP score more than 1 and 12.6% in normal serum phosphate group patients had KISSLIP score more than 1. We found that average hospital stay in low normal phosphate group was 6.19 and 5.47 days respectively. In our study 3 (4.7%) acute MI patients expired (2.6%) with low phosphate and (1.3%) with normal phosphate.

Conclusion: Based on the findings of our study we concluded that patients with normal phosphate level with acute MI had better outcome than patients with acute MI with based on low phosphate levels mean ejection fraction and KISSLIP score.

Study of ST Segment Resolution after Thrombolysis in Acute Myocardial Infarction as a Predictor of Outcome

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Background: Simple and rapid measures are needed for timely assessment of quality of reperfusion therapy in acute ST segment elevation myocardial infarction. ST segment elevation resolution following thrombolysis is simple, non-invasive, accessible tool for the assessment of coronary reperfusion.

Methods: This study was undertaken to assess the resolution of ST segment elevation 90 min following thrombolysis in acute myocardial infarction as a predictor of short term outcome.

Objectives:
1. To study ST segment resolution after thrombolysis.
2. To study ST segment resolution with its correlation to clinical outcome and early complication.

Methods: Sixty patients with first attack of acute ST segment elevation myocardial infarction without any conventional contraindication for thrombolysis were taken for study. Based on percentage resolution of ST segment elevation resolution 90 min following therapy, patients were divided into three groups: > 70% resolution (complete resolution group), 30%-70% (partial resolution group) and < 30% (no resolution)

Methodology
Source of Data: All patients with diagnosis of acute ST segment elevation according to ACC/AHA guidelines admitted in iccu of meenakshi medical college hospital and research institute enathur kanchipuram
Sample size: 60 cases of diagnosed ST segment elevation myocardial infarction.
Sampling method: Simple random sampling
Inclusion Criteria: All the patients with previous history of acute myocardial infarction and with conventional contraindication for thrombolysis
Exclusion Criteria: Patients with previous history of cardiac surgery, cardiomyopathies and congenital heart disease.

Results: Of 60 patients, 9 patients (15%) had < 30% ST resolution (no STR), 26 patients (43.3%) during hospital stay in terms of adverse events and mortality. had 30-70% ST resolution (partial STR), 25 patients (41.7%) had > 70% ST resolution (complete STR). During hospital stay adverse events including death for no resolution group was 100%, for partial resolution group was 69.2% and for complete resolution group was 16.9%

Conclusion: Patients with no resolution of ST segment 90 minutes following thrombolysis associated with more frequent adverse events and increased mortality compared to partial and complete resolution.

Among adverse events, left ventricular failure is most frequent adverse events followed by arrhythmias 26.7% cases followed by angina 18.3% cases and cardiogenic shock 8.3%. Impatient mortality seen in 7 cases that is 11.7% cases. Most common causes of death is cardiogenic shock 71.4% cases followed by VT / VF 28.6% cases.resolution; Thrombolysis.

Early Prognostication of Acute Myocardial Infarction Based on NT-proBNP Levels

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Introduction: Risk stratification of patients with acute coronary syndrome is fundamental in determining prognosis and choosing appropriate care. Risk prediction models based on clinical, ECG and biochemical markers like troponins are relatively inaccurate. There is emerging evidence that natriuretic peptides possess characteristics of ideal biomarker. Levels of NT-proBNP also correlate with left ventricular dilatation, remodeling and dysfunction, heart failure as well as death among patients of MI.

Aims and Objectives: To assess the relationship of plasma NT-proBNP levels on admission to the prognosis of MI.

Materials and Methods: It is an observational study conducted on 60 patients of cases of acute MI more than 18 yr of age presenting with acute chest pain of upto 24 hr duration. Patients with known case of IHD, renal failure, liver failure were excluded. Serum NT-proBNP levels was measured.

Results: Out of 60 patients, 26 female patients were diagnosed as IWI, 25 AMI, 16 were ALWMI and 23 were NSTEMI. The median time from onset of symptoms to admission was 12; IQR and the median value of NT-proBNP was 527±mL.A complex of 500pg/ml was taken to dichotomise the group into above median and below median group for analytical purpose. Mean ejection fraction was significantly less in above median group. No correlation of DM and HTN with levels of NT-proBNP was level was. On day followup 22 patients had recurrent chest pain of which 20 belonged to above median group. Out of total 23 deaths,21 belonged to above median group.

Conclusion: NT-proBNP is a strong predictor of short term outcome in acute MI including death. It can identify high risk patients who might benefit from an aggressive management strategy. Use of NT-proBNP improves the early diagnosis and risk stratification of patients with suspected acute MI.

Clinical Chemistry Score(CCS) Versus High-Sensitivity Cardiac Troponin: Is There a Role for One to Al productivity Identifies at Patients at Low or High Risk for Myocardial Infarction or Death, at Presentation to the Hospital

Asmita Gole, SL Srivastava, Vamsi Krishna Redaritsi, Neeraj, Anirud SD
Tata Moters Hospital, Jamshedpur, Jharkhand

Introduction and Objective: Myocardial infarction (MI) and other acute coronary syndromes (ACS) are of great clinical importance and are associated with a large economic burden on healthcare resources. Thus, it is important to risk stratify the patients presenting with symptoms of ACS for the proper allocation of resources and patient care. Cardiac troponin is often used for this purpose, but use of a single test may result in error due to analytical variation and laboratory error. Use of other tests along with cardiac troponin may result in better predictability of MI or death. Dysglycemia is a strong risk factor for MI. Impaired renal function is associated with worse adverse in-hospital outcomes in patients with ACS. BNP and serum creatinine level are simple tests done routinely as surrogates for above mentioned conditions respectively. Thus, the purpose of this study was to assess the utility of cardiac troponin alone versus clinical chemistry score (CCS) (range 0-5) comprising of BNP and serum creatinine and cardiac troponin, in predicting MI and death within 30 days of initial presentation.

Materials and Methods: All the patients presenting to our hospital during the study period - September 2018 to December 2018 with symptoms suggestive of ACS will be included in the study. Patients with STEMI will be excluded. Cardiac troponin I, blood glucose level, and serum creatinine level is used to calculate CCS whereas, in this case cardiac troponin alone is used for initial assessment in the study subjects, and the CCS will be calculated. The patients will be followed up for a period of 30 days to note any occurrence of MI or all-cause death.

Results and Conclusion: Will be discussed at the time of presentation.

Therapeutic Experience of Ticagrelor in Indian Patients with Acute Coronary Syndrome (ACS): A Non-Interventional, Prospective, Observational Study (Therapeutic Experience of Ticagrelor in Indian Patients with Acute Coronary Syndrome (ACS): A Non-Interventional, Prospective, Observational Study (TREASURE) - Multivessel Disease Subgroup Analyses

JPS Sawhney1, J Dalal2, Mullasari A3
Gangaram Hospital, Delhi, Kokilaben Hospital, Mumbai, Maharastra, Madras Medical Mission Hospital, Chennai, Tamil Nadu

Introduction: TREASURE was a non-interventional observational study designed to understand the usage pattern of ticagrelor in real life clinical practice in ACS patients in India. We describe the patient characteristics & outcome patterns of Ticagrelor in a subgroup of patients
Therapeutic Experience of Ticagrelor in Indian Patients with Acute Coronary Syndrome (ACS): A Non-Interventional, Prospective, Observational Study (Treasure Study) - Subgroup Analyses of Fibinolysed Patients

Mullasari A1, JPS Sawhney1, A Toppo2, VN Mishra3, J Dalal1, Sundaram Arulrhaj Hospitals, Tuticorin, Tamil Nadu

Introduction: TREASURE was a non-interventional, prospective, study designed to understand the usage pattern of ticagrelor in real life clinical practice in ACS patients in India. We describe the usage pattern of Ticagrelor reported in the subgroup of patients who were included in the TREASURE study and underwent fibrinolysis.

Materials and Methods: A total of 2,997 ACS patients from 49 sites aged ≥18 years who underwent percutaneous coronary intervention (PCI), Coronary Artery Bypass Graft (CABG) or Medical Management (MM) for ACS and had been prescribed ticagrelor upon discharge or ≤1 month of discharge and underwent Percutaneous Coronary Intervention (PCI), Coronary Artery Bypass Graft (CABG) or Medical Management for ACS were included and followed up for 1 year.

Results: Among 1,746 patients, 47.7%, 23.5% & 28.9% patients had STEMI, NSTEMI & UA respectively. PCI was conducted in 11% of cases and a stent was used in 92.9% of these cases. Drug Eluting Stent was used in 85.5% of patients. The median (min, max) duration of use of ticagrelor was 366.0(100, 406.0) days. Uninterrupted use of ticagrelor for 1 year was documented in 81.5% patients. PLATO major, minor & minimal-bleeding in a subgroup of patients included in the TREASURE study who had Diabetes Mellitus (DM)

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Results: Among 1,354 diabetic patients, 47.3% & 28.7% of patients had STEMI, NSTEMI and Unstable Angina (UA) respectively. The median (min, max) duration of use of ticagrelor was 366.0(100, 406.0) days. Uninterrupted use of ticagrelor for 1 year was documented in 82.6% patients. About 64.7% & 136.4% patients experienced any clinical events (Bleeding, Dyspnea and cardiac and respiratory dyspnoea). Severe dyspnoea was seen in 10(1%), 3(0.2%) & 7(0.5%) patients respectively compared to 20(0.7%), 19(0.6%) & 23(0.8%) respectively in the overall study population.

Conclusion: The treatment with ticagrelor reported numerically higher in the MVD subgroup compared to overall study population.

Therapeutic Experience of Ticagrelor in Indian Patients with Acute Coronary Syndrome (ACS): A Non-Interventional, Prospective, Observational Study (Treasure Study) - Subgroup Analyses of Fibinolysed Patients

Mullasari A1, JPS Sawhney1, A Toppo2, VN Mishra3, J Dalal1, Sundaram Arulrhaj Hospitals, Tuticorin, Tamil Nadu

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Conclusion: The treatment with ticagrelor reported numerically higher in the MVD subgroup compared to overall study population.

Clinical Utility of NT-Pro BNP in Evaluating Patients with Suspected Congestive Cardiac Failure: An Observational Study

N Bhubaneswar Sundaram Arulrhaj Hospitals, Tuticorin, Tamil Nadu

Introduction: Heart failure is a burgeoning problem worldwide with more than 20 million people affected. Although echocardiography is the gold standard for left ventricular dysfunction, it is not always in Emergency Room accessible. NT-proBNP is a diagnostic tool for identifying cause of dyspnoea in acute setting thereby preventing the longterm complications including morbidity and mortality.

Aims and Objectives
- To evaluate the clinical utility of NT-Pro BNP in Patients with suspected HF and for differentiating cardiac and respiratory dyspnoea
- To compare levels of NT-proBNP in patients with preserved (HFpEF) and reduced ejection (HFrEF) fraction in case of acute heart failure

Materials and Method: A Cross Sectional Study is conducted at ER of Sundaram Arulrhaj Hospitals, Tuticorin, Tamilnadu. 100 Cases Presenting with acute dyspnea suspected to have congestive heart failure aged 40-70 years will be the subjects.

Based on their clinical diagnosis
- The patients were divided into two groups:
  - Group 1 diagnosed with Non cardiac dyspnea
  - Group 2 diagnosed with congestive heart failure (CHF)

Conclusion: NT-Pro BNP Rises exponentially in relation to Reducing Ejection fraction, so can be used in Emergency room for augmenting the clinical diagnosis of a physician in cases with unknown dyspnea. It has High Negative predictive value and can help in ruling out the cardiac cause of dyspnea.

A Study of Angiographic Pattern in Diabetic Patients with Acute Coronary Syndrome in Correlation with HBA1C Levels

Princy John P Sundaram Arulrhaj Hospitals, Tuticorin, Tamil Nadu

Introduction: Cardiovascular disease is the major cause of premature mortality in patients with Diabetes. According to American Diabetes Association 33-49% of patients still do not meet targets for HBA1C.

Aims & Objectives: To study the correlation between
- HBA1C levels in Diabetic patients
- With Acute Coronary Syndrome with special interest based on their Angiographic profile.

Materials & Methods: A Cross sectional study of a total of 46 known cases of Diabetic patients admitted in Our Hospital[Sundaram Arulrhaj Hospitals Tuticorin, Tamil Nadu]. The confirmed diagnosis of ACS were included in the study. After stabilizing the patient & getting informed consent HBA1C was done along with other routine parameters & Cardiac Cath was done & study was conducted based on their Coronary Angiography pattern.

Results: The Total Population was divided into 4 classes based on the HBA1C level
- In class with HBA1C level <6.5%: 4(50%) had reperfused Normal coronaries, 4(50%) had single vessel disease with Type A lesion & 0% for Double vessel disease & 1(25%) had triple vessel disease.
- In Class with HBA1C level 5.5-8.5%: 2(25%) had Single vessel disease, 6(75%) had Double vessel disease & 14(66%) had Single vessel disease.
- In Class with HBA1C level 8.5-10.5%: 4(40%) had Triple vessel disease, 4(40%) had Double vessel disease, 2(20%)...
had Single vessel disease.

- In Class with HBA1c levels >10.5, 4.67% had Triple vessel disease, 23.3% had Double vessel disease & 0% had Single vessel disease & Normal Coronaries.

Conclusion: The incidence of triple / multi vessel disease was higher with higher values of HBA1c levels. The severity of Coronary artery disease (CAD), was also found to be directly related to the quality of glucose control in Dialysis patients having poor glycemic control with elevated levels of HbA1c had diffuse(Type C) pattern of atherosclerotic disease.

To Evaluate Serial Cardiac Biochemical, Electrocardiographical and Echocardiographical Outcomes of Remote Ischemic Preconditioning in Patient Undergoing Elective Angioplasty and Stenting
Jai Kumar Patel, S Chandravanshi, S Shrivastava
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Chattisgarh

Introduction and objectives: Remote Ischemic preconditioning (RIPC) is a novel phenomenon whereby repeated cycles of non lethal ischemia and reperfusion applied to distant organ have protective effect on myocardium on subsequent ischemic insult. This Study is conducted to evaluate the effects of RIPC on attenuation of ischemic reperfusion injury.

Materials and methods: This was prospective, randomised, single blinded, case control study. Primary outcome was percentage of troponin T (Tn T) and creatinine kinase-MB fraction (CK-MB) levels before procedure, 6, 12, and 24 hours after elective PCI in both RIPC and control group. Pre-ST segment changes and improvement in Left Ventricle Ejection Fraction (LVEF) were secondary outcome. Patient giving written consent for study and baseline CK-Tl level (<0.90ng/ dl), CK-MB level (<5.90 ng/dl) were included and randomised to RIPC or control group. RIPC or sham RIPC is applied as per randomisation.

Results: RIPC reduced area under curve (AUC) of TnT by 77.29% (8.84±9.72 [n=26] vs. 38.93±79.11 [n=26]; p=0.05) and AUC of CKMB by 64.82% (179.95±120.7 [n=26] vs. 51.65±50.2 [n=26]; p=0.02) when compared with control subjects. Mean ST segment was 0.94±1.02 and 0.94±1.39 (mm) pre-PCI and post-PCI respectively in control group (p=0.02); and 0.92±1.16 and 0.77±1.03 (mm) pre-PCI and post-PCI in RIPC group (p=0.55). Mean LVEF was 44.19±10.08 and 49.38±9.50 (%) pre-PCI and post-PCI respectively in control group (p=0.006); and 43.76±10.46 and 48.84±11.17 (%) pre-PCI and post-PCI in RIPC group (p=0.03).

Conclusions: Remote ischemic preconditioning has definite therapeutic benefits by decreasing periprocedural myocardial injury/infarction.

Echocardiographic Evaluation of Left Ventricular Functions in Patients with Left Bundle Branch Block
Gopalkrishna S Gumaste Deshpande, A Toppo, S Shrivastava, S Gupta
Pt. JNM College, Raipur, Chattisgarh

Introduction and objectives: Patients with LBBB can be asymptomatic or can present with variety of clinical manifestations. Etiology of LBBB is also diverse. It has been seen that left ventricular ejection function (LVEF) of RIPC over time even in patients without underlying structural heart disease. Hence the study was conducted to assess Left Ventricular Systolic Functions in patients with LBBB admitted in a tertiary care hospital.

Materials and Methods: All consecutive patients with ECG changes of LBBB admitted in our hospital were included. Detailed history & clinical examination was done. Echocardiography was performed and Left Ventricular Systolic Functions were studied.

Results: 20 patients with LBBB were studied. Mean age of the patients was 49.9±12.3 years. Maximum no. of patients (15) were females amounting to 75% of total patients. Males (5) constituted 25% of the patients and female to male ratio was 5.1:1. The commonest ECG changes noted were left atrial hypertrophy which accounted for 50% cases. Next frequent symptom was chest pain which constituted 15% of cases. Out of 20 patients 45% of patients were hypertensive, 30% patients were diabetic and 15% patients had Coronary Artery Disease (CAD). 80% of patients with echocardiography had systolic dysfunction. 25% of patients had global hypokinesia and 10% patients had RWMA in LAD territory. MR was the most common valve lesion and was seen in over 50% of patients followed by TR (40%) and AR (20%) respectively. 55% of study population had diastolic dysfunction.

Conclusion: LBBB was seen mainly in elderly females. Breathing pattern change and Marked chest pain followed by chest pain. Hypertension was the most common risk factor followed by diabetes. 80% of study population had systolic dysfunction and 55% had diastolic dysfunction. Valvular regurgitation was seen in 60% of patients.

Comparison of Lipid Lowering Effects of Atorvastatin and Rosuvastatin in Patients of Ischemic Heart Disease with Dyslipidemia in a Tertiary Care Centre in North India
Tarun
B.P.G.M.C. (W) Kanpur Kalan, Sonopat, Haryana

Introduction & Objectives: Most of clinical trials involving cholesterol lowering drugs (e.g. statins) as a component of a full risk profile of lifestyle interventions to ensure that doctors know their CVSD risk.

Materials and methods: A total of 1000 patients presenting with Acute Coronary Syndrome were included in this study. Patients gave consent and were randomised to RIPC and control group. RIPC group included 50 patients. They were post-PCI procedure, 6, 12, and 24 hours after elective PCI in both RIPC and control group, measurements of ST segment elevation is less marked.

Conclusion: LBBB was seen mainly in elderly females. Breathing pattern change and Marked chest pain followed by chest pain. Hypertension was the most common risk factor followed by diabetes. 80% of study population had systolic dysfunction and 55% had diastolic dysfunction. Valvular regurgitation was seen in 60% of patients.

Cross Sectional Study of CVD Risk Calculators in Kerala
D Gnanaguru, Akash Thomas, Oonim-
Final Year PG, Department of General Medicine, Professor and Unit Chief, Department of General Medicine, Amrita Institute of Medical Sciences, Kochi, Kerala

Introduction: A cross sectional study validating the accuracy of different risk scores in assessing the risk of Acute Coronary Syndrome among patients in a tertiary care hospital in Kerala.

Objectives: To compare the various Cardiovascular Disease risk score calculators in the South Indian population.

Materials and Methods: A total of 1000 patients presenting with Acute Coronary Syndrome were included in this study. For each patient, their Cardiovascular Risk score, had they presented prior to the event, was calculated. The Framingham Risk Score (FRS-BML, FRS-FLP), ACC/ AHA/ADP (BID/Pooled Cohorts calculator (ACC/AHA PCE), Joint British Society Risk Calculator 3 (JBS3) and the WHO risk prediction charts (WHO TC and WHO without TC) were used.

Results: The ACC/AHA PCE performed better in prediction of the risk and identified 70.1% as having high risk. The FRS-FLP and the JBS 3 were identical and RIPC and control group, measurements of ST segment elevation is less marked.

Conclusion: The JBS, which includes a majority of non traditional risk factors, sociodemographic and lifestyle factors, performed admirably highlighting the importance of the inclusion of newer risk factors in the risk calculation systems. But, the FRS-FLP and ACC/AHA performed identically and better, when compared, bringing to light that CVD is no longer just a disease of the affluent. This study also highlights the importance of screening programs that incorporate history, clinical examination and basic biochemical tests for the effective prevention of CVD. According to this study, the ACC/AHA outperformed all the other risk score systems in the study population.

Cardiovascular Disease Risk Among Doctors: A Cross Sectional Study
Balam Rathish, Roshi Pillay, Geetha Mathias Philips, Anil Kumar R, Abin Francis
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Introduction & Objectives: The leading cause of death in the world has been found to cardiovascular disease (CVD) and stroke by the World Health Organization, needs to be increased awareness even among doctors, and interventions to ensure that doctors know their CVD risk.

Materials & Methods: We conducted a cross sectional study using a standardized questionnaire based on the QRISK3 score developed by the National Health Service in United Kingdom, which predicts the percentage of 10 year CVD in an individual. We aimed to look at the cardiovascular disease risk among the doctors in our country.

Results: The average RR for a doctor developing CVD or stroke in next 10 years was found to be 2.16. 74.13% of doctors had a RR more than 1 and were at increased risk. The highest RR was found in smokers, hypertensives and diabetes and obese subjects. We also found that 16.18 % of doctors smokes or were ex smokers, and surprisingly, 76.5 % of doctors were either overweight or obese. 6% did not know their BMI, 9% did not know their BP, 45.8% did not take their blood pressures regularly. The incidence was very high. Many doctors are also unaware of their own BP and cholesterol values. Modifiable factors need to be addressed and there needs to be increased awareness even among doctors, and interventions to ensure that doctors know their CVD risk.
and to combat this problem.

Acknowledgment: Indian Medical Association, Kochi Branch.

Risk Assessment of Major Adverse Cardiovascular Events in Non-Valvular Atrial Fibrillation Patients Using CHA2DS2 Vasc Score and Cardiac Biomarkers

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Tata Motors Hospital, Jamshedpur, Jharkhand

Introduction: Atrial Fibrillation is most common sustained cardiovascular arrhythmia. It is caused by structural abnormalities & atrial electrophysiological anomalies and has a prevalence of both. Men are more consistently affected by Atrial Fibrillation than women. The incidence of non-valvular Atrial Fibrillation increases with age ranging around 1% for <40yrs to 16% for >80yrs. The 4 major complications of non-valvular Atrial Fibrillation are Stroke, Heart Failure, Myocardial Infarction and Death because Atrial Fibrillation results in fibrillatory pulse and heart failure, the criteria of which is based on the criteria of Virchow’s triad, which is the major pathogenic mechanism for thromboembolism. By using the cardiac biomarkers along with CHA2DS2-VASC score there will be significant improvement in assessing the risk of major life threatening complications in non-valvular Atrial Fibrillation.

Aim: To study the effect of non-valvular major adverse cardiovascular events in non-valvular Atrial Fibrillation patients using CHA2DS2 VASC score & cardiac biomarkers.

Primary objective: To determine major adverse cardiovascular events in non-valvular Atrial Fibrillation patients correlate with cardiac bio-markers.

Secondary objective: To assess cardiac bio-markers and CHA2DS2 VASC score impact on diagnosing major adverse cardiovascular outcomes.

Materials and Methods: This is a prospective cross sectional observational study conducted in Tata Motors hospital in 60 non-Valvular Atrial Fibrillation patients for a period of 2 years (Dec 2016-Dec 2018). The blood samples collected and tested from selected patients and the results drawn based on cardiac bio-markers follow up. Study includes both newly and previously diagnosed patients.

Results: From the study trial of 60 patients, approximately 8% & 6% shown predominance of Atrial fibrillation comparing major adverse events on non-valvular Atrial Fibrillation.

Probing the Plausible Role of Deranged Thrombophilic Markers in Young Patients of MI

Pooya Anam, Sangeeta Gupta*, Sandeep Garg, Naresh Gupta, Angad Grewal, Maulana Azad Medical College, New Delhi

Introduction and Objectives: Observation of clinical trends in recent times, in young patients of MI, have showcased a departure from usual causal agents. This warrants further studies to identify other culprits. Recent studies have chosen to deviate from the accepted sermons and implicate thrombophilia to play a role in generation of arterial thrombosis. Ambiguity marks exact extent of involvement.

In our current study, we aim to address these enigmas – plausible role & degree of involvement.

Materials and Methods: A prospective observational study was conducted for 15 young patients admitted due to myocardial infarction at a tertiary care hospital. Fifteen young Indian patients (age < 45 years) presenting with myocardial infarction (n = 15), were investigated (after excluding routine causes along the following thrombophilic parameters – Protein C, Protein S, and Homocysteine).

Quantitative estimation of Protein C and Protein S was done using automated chromogenic assay in human citrated plasma on the ACL TOP advance systems. Quantitative estimation of Homocysteine was done by using Diace Homocysteine 2 Reagent Enzymatic Assay. SSPP 22 software performed data computation.

Results: Apropos thrombophilic markers, Protein C levels were deficient in 2 patients (13.34%), Protein S level 4 in 6 patients (40%), and elevated Homocysteine levels in 8 patients (53.34%).

Conclusions: Statistically significant results were found in patients who were Protein S deficient, and harboured elevated Homocysteine levels.

Protein C deficiency, requires larger studies to be carried out – in order to cement it’s aetiological role, and a sub variant is recommended in order to assess risk & screening due to familial predisposition.

Hypertension

Effect of “Feet on the Floor” During Blood Pressure Measurement in Office by Oscilometric Method

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Introduction: The ACC/AHA guidelines for the prevention, detection, evaluation and management of blood pressure in adults,2017 has in detail specified the correct techniques for measurement of blood pressure accurately. Amongst other pre requisite, patient rest sitting on the chair with feet on the floor” is emphasized. In OPD settings this is not often practiced and the possible impact on blood pressure values needs assessment. Almost all previous studies are on measurement of blood pressure by sphygmomanometric method and data on oscillometric evaluation is sparse.

Methods & Materials: 100 consecutive patients, 18 years or older, attending out patient department were evaluated.

Blood pressure was measured using Microlife instrument after measuring mid arm circumference and using appropriate size cuff. The device automatically measures blood pressure three times at an interval of one minute each and displays the mean of all the readings as the final value. All precautions as per ACC/AHA 2017 Guidelines were followed during blood pressure measurement.

The first reading was recorded with the patient’s feet resting on the ground and second set of readings were taken with feet raised off the ground after an interval of five minutes. The height of the BP instrument was raised equally.

Unpaired t test was utilized for the statistical analysis.

Results: mean age of the participants was 48.78 years and mean arm circumference was 32.96 cm. 41% were male and history of hypertension was present in 40% subjects.

Both systolic and diastolic blood pressure readings were numerically lower with feet on the ground (without support group S) than with feet resting on the floor (with support group WS) (systolic 126.81 vs 124.94 mmhg (p value 0.52) and diastolic 81.73 vs 82.92 mm of hg (p value 0.47). Mean pulse rate of left foot was higher on putting feet on the ground (88.69beats/min vs 89.05beats/min)

Table: SBP and DBP in S Vs WS groups

<table>
<thead>
<tr>
<th>n=100</th>
<th>Support (feet on ground)</th>
<th>Mean</th>
<th>SD</th>
<th>Support (feet off the floor)</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td>SBP</td>
<td>128.4 ± 18.57, 124.8</td>
<td>126.8 ± 17.65, 123.3</td>
<td>0.52</td>
<td>(ns)</td>
<td>0.21</td>
</tr>
<tr>
<td>DBP</td>
<td>82.92 ± 11.73, 80.59</td>
<td>81.73 ± 11.77, 79.4</td>
<td>0.47</td>
<td>(ns)</td>
<td>0.21</td>
</tr>
</tbody>
</table>

Conclusion: Keeping “feet on the ground” has a small effect on the mean oscillometric blood pressure measurement.

Both systolic and diastolic blood pressure values may drop by a small margin if patient keeps feet dangling in air while blood pressure is being estimated.

Endothelial Function Modifying Effect of First Line Antihypertensive Drugs in Elderly Hypertensive Patients

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Introduction and Objectives: To assess the effect of first line anti-hypertensive drugs [ARB (Olmesartan), Beta blocker (Nebivolol), Calcium channel blocker (Amlodipine), Thiazide diuretic (Chlorthalidone)] on endothelial function in newly diagnosed elderly hypertensive patients (age ≥ 50 years).

Comparison between the effects of 4 groups of drugs in terms of changes in endothelial function.

Materials and Methods: We conducted a prospective observational study from June 2017 to July 2018 with the inclusion criteria being newly diagnosed elderly hypertensive patients (BP ≥ 140/90 mm Hg), age ≥ 50 years, who have given consent for participation in the study. Previously diagnosed patients already on anti-hypertensive treatment, patients with history of coronary artery disease, cerebro-vascular accident, diabetes mellitus, creatinine clearance of <45/ml/min/1.73m2, on any anti- dyslipemic and anti-platelet drugs were excluded from the study.

A total number of 40 patients were included in the study. Baseline endothelial function was assessed non-invasively by obtaining flow mediated dilation (% FMD), by brachial artery color doppler. They were randomized into four groups each of 10 patients to the above mentioned drugs.

At least after one month of treatment endothelial function was again reassessed by same method.

Results: The % FMD increased maximum by 10.03 in the olmesartan group (p=0.01), followed by in the nebivolol group by 7.55 (P-value: 0.001), followed by in the amlodipine group by 2.83 (P-value: 0.21), followed by in the chlorthalidone group by 1.53 (P-value: 0.01).

With respect to improvement in % FMD there was only significant difference between olmesartan and chlorthalidone with a P value of 0.014.

Conclusion: Olmesartan and nebivolol have significant improvement in endothelial function, which can decrease the progression of already established atherosclerotic disease.

A Study of Vitamin D and its Correlation in Patients with Essential Hypertension

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Introduction: New research and data shows that vitamin D could be a risk factor in many chronic diseases like hypertension, dyslipidemia, diabetes mellitus, cardiovascular disease, some cancers, auto immune disease and tuberculosis. There is an inverse relationship between the plasma 1.25(OH)2D3 concentration and the blood pressure and/or the plasma renin activity in both normotensive men and patients with essential hypertension. Further, it has been reported that Vitamin D supplementation reduces blood pressure in patients with essential hypertension.

Aims & Objectives: To determine the serum 25-hydroxy vitamin D levels in patients with primary hypertension To demonstrate any co-relation between vitamin D and Hypertension

Methods: 50 patients who are primary hypertensives were selected and their vitamin D levels was measured and their vitamin D levels were compared to age and sex matched non hypertensive controls.

Results: 50 hypertensive cases and 50 non hypertensive controls attending to OPD and inpatients coming to Dr. B. R. Ambedkar Medical College hospital were evaluated for vitamin D levels. The hypertensive patients had lower vitamin D level status of deficiency in 13(26%) of the cases and insufficiency in 20(40%) of the cases and normal levels in 17(34%) of the cases. Non hypertensive controls showed normal vitamin D status in 42(84%) of controls and insufficiency in 7(14%) of the controls. Age, duration of hypertension, systolic blood pressure and diastolic blood pressure inversely correlated to vitamin D levels.

Conclusion: It was observed from this study that serum vitamin D levels was inversely correlated to blood pressure when compared to non-hypertensive controls. Vitamin D could be an independent risk factor that is associated with primary or essential hypertension. Further studies with large number of participants are required to confirm the etiology of vitamin D deficiency in Primary Hypertension.
Study of Sodium and Potassium Imbalance in Newly Diagnosed Hypertension

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1Professor, Associate Professor, YMO, Professor, Department of Medicine, Shyam Shah Medical College and S.G.M.H, Rewa, Madhya Pradesh

Introductions & Objectives: Hypertension is one of the most common causes of death all over the world. It remains the major risk factor for cardiovascular, cerebral and peripheral vascular disease. Essential hypertension comprises more than 90% of hypertension. Hypertension is an emerging health problem in India. When majority of people come to know that they have hypertension, the patient was already advanced into a stage with target organ damage - a fatal stroke or myocardial infarction or irreversible renal failure. Unfortunately even in developed countries like United States, 50 million people are found to have hypertension. We studied serum sodium and potassium levels and correlate them with the blood pressure in newly diagnosed hypertension.

Materials & Methods: This was a cross sectional study conducted in the department of General Medicine at S.S Medical College Rewa M.P. over a period of one year. Both inpatients and outpatients were taken in to study.

Results: In our study out of 250 patients 133 were in stage 1 hypertension (53.2%) and 102 patient were in stage 2 hypertension (40.8%).very small proportions(6%) were higher in both stage 1 & 2 hypertension and serum potassium was lower in both stage 1 & 2 hypertension.

Conclusions: Serum sodium was significantly more in group B than in group A and potassium was also correlated positively with levels of blood pressure. Serum potassium was significantly less among in newly diagnosed hypertension and it correlated negatively with levels of blood pressure.

Resistant Hypertension - Clinical Corelates: Hospital Based Study

Rajas Gandhi, Parvati Nandy

SMIMS, Ahmadabad, Gujarat

Introduction: Poor control of blood pressure is one of the most common risk factors for death worldwide, responsible for 62% of cases of cerebral vascular disease and 49% of cases of ischemic heart disease as well as 7.1 million annual deaths. Refined Resistant hypertension - defined as high BP uncontrolled with three or controlled with at least four antihypertensive drugs (including a diuretic)

Results & Literature: The prevalence of resistant RH has been found to be 10% among treated hypertensive patients in Argentina in November 2012, five variables were independently associated with it-body mass index, isolated systolic hypertension, orthostatic hypotension and use of certain drugs NHANES shows between 1988-1994 the estimated prevalence was 5.5%, between 1999-2004 the rate was 8.5% and between 2005-2008 it was 11.8% in all hypertensive patients. Using treated hypertensive patients as the denominator, the estimated prevalence rates during the same intervals were 15.9,21.2 and 28%,respectively 38% of chronic kidney disease met the definition of resistant hypertension.4The exact prevalence of resistant hypertension is unknown Risk factors for RH consistent in multiple cross sectional analysis: High baseline systolic BP,African descent,Obesity,CKD,Older age

Aims and Objectives

Primary objective: To identify the burden of Resistant Hypertension in hospital based population of hypertension

Secondary objectives: Study the clinical profile,comorbidities and complications suffered by such patients

Materials and Methodology

Study Design: Hospital based cross sectional study.

Study Setting: This study will be conducted at CRH, SMIMS, Tawang, Guwahati.

Study Duration: The study will be conducted over a duration of 1 yr. from 1st October 2017, to 30th September 2018.

Source of Data: All patients of Hypertension at CRH, Gangtok, Sikkim.

Tool for Data Collection: A pre-tested questionnaire developed by the investigator will be used in collecting the data.

Estimation of Serum Leptin Levels in Primary Hypertension

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VMMC and SJH, New Delhi

Introduction: Hypertension is ranked as third most important risk factor contributing for burden of disease. Several factors including genetic, environmental and endocrine factors contribute to the development of essential hypertension. Obesity is one of the contributing factors. Obesity related hypertension is multifactorial and leptin, the adipocyte-derived hormone has recently been postulated as one of the possible cause. The concept of selective lepin resistance could facilitate understanding obesity related hypertension

Objectives: Estimation of serum leptin levels in primary hypertension. And to compare serum leptin levels in overweight and normal weight hypertensive patients.

Material and Methods: Total 100 subjects were included in the study fulfilling inclusion and exclusion criteria. Among which they were divided into four subgroups. Case (Group A: Overweight Group B: normal weight),control (Group C: overweight, Group D: normal weight). A brief history followed by BP, BMI, serum leptin was measured. And the results obtained were compared.

Result: Serum leptin was measured in both case and control group. The leptin value in case was 37.52 ng/ml and 23.74 ng/ml. Among case, leptin value in normal weight was 12.49 ng/ml and overweight was 62.54 ng/ml. The above results shows that serum leptin was significantly higher in hypertensives when compared to controls. And among hypertensives it was significantly higher in overweight when compared to normal weight.

Conclusion: It shows that serum leptin were significantly higher in hypertensive group than controls (P<0.001). Among the hypertensive patients, and the prevalence of hyperuricemia was 41.66%.

Study of Association of Serum Uric Acid Level and Microalbuminuria in Essential Hypertension

Hemant Vimlani

Objectives: To confirm the absence of sweating on the left side of the face, otherwise the systemic examination was normal. ANS examination was normal. Her vitals were within normal limit. Partial drooping of left eyelid noted. Pupillary light reflex revealed an unresponsive left pupil and a responsive right pupil, with 3.5 mm diameter of around 3 mm bilaterally. She was asked to walk for around 500 meters; following which she was examined, which revealed an absence of sweating on the left side of the face, with flushing on the same side. Otherwise the systemic examination was normal. ANS examination performed and was normal.

Discussion: The “Harlequin sign” is a unilateral flushing and sweating of the face, neck, and upper thorax in the patient, after repetitive exercise. Horner syndrome, another problem associated with the sympathetic nervous system, is often seen in conjunction with Harlequin syndrome.

Conclusion: The treatment in such cases is directed towards the cause of the lesion. Unless there is a hindrance to the cause of the lesion, this syndrome does not necessitate a treatment.
Study of Non Genetic Risk Profile for Mild Cognitive Impairment in Elderly
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MS Ramaiyah College and Hospital, Bangalore, Karnataka

Introduction and Objectives: Mild cognitive impairment (MCI) is the transitional stage between normal aging and dementia. It is essential to identify the risk factors for mild cognitive impairment in elderly to possibly prevent high risk of progression to dementia.

To assess the non genetic risk factors for mild cognitive impairment in elderly.

Materials and Methods: 500 individuals aged above 60 years were enrolled for study. In the elderly group, fulfilled inclusion and exclusion criteria, a detailed history of existing comorbidities were obtained. All study subjects were divided into two groups, normal cognition and subjects with mild cognitive impairment (MCI).This was done based on two scores, mini mental status examination (MMSE) and monocular cognitive assessment (MCA).

Results:

- Subjects with MCI had prior history of diabetes mellitus (40.6%), hypertensive (39.1%), cerebrovascular (23.5%), ischemic heart disease (20.5%), renal disease (13.8%), hypothyroidism (28.2%) as compared to subjects with normal cognition (p<0.001).

Mean systolic blood pressure was higher in subjects with MCI as compared to subjects with normal cognition (p<0.001).

Mean HbA1c, RBS, serum cholesterol, serum triglyceride, serum creatinine, serum TSH was higher in subjects with MCI as compared to normal cognition (p<0.01).

Conclusion:

- Significant risk factors for development of MCI were diabetes mellitus, hypertension, BMI, CVR, hypothyroidism, vitamin B12 deficiency, dyslipidemia, anaemia, hypothyroidism and renal failure. It is even more pertinent for study importance to evaluate elderly for mild cognitive impairment since reversible risk factors can be intervened by appropriate treatment.

Clinicoetiological and Imaging Profile of Cerebral Venous Thrombosis
Gyanamita Panigrahy,
Veer Surendra Sai Institute of Medical Sciences and Research, Burla, Orissa

Introduction and objectives: Cerebral venous thrombosis (CVT) is an uncommon cause of stroke with extremely variable presentations, poor understanding of etiological factors, imaging findings, and outcomes and requires a high degree of clinical suspicion. Newer imaging techniques have made diagnosis possible in recent years. This study was performed to find out the common etiological factors and the various modes of clinical presentation of such cases along with relevant imaging findings.

Materials and methods: 25 patients with a confirmed diagnosis of CVT based on neuroimaging techniques were included in the study and assessed for possible etiological factors.

Results:

- Out of 25 patients 14 were female and 11 were male. The mean age of presentation was 30.3±10.4 years with 21 patients in the age group of 18-40 years. Most (76%) cases involved straight sinus, sigmoid sinus in 15 cases(60%), straight sinus in 19 cases (76%).

Spinal Tract (UMN) Signs

- The difficulties surrounding Diagnosis of UMN signs is rarest(12%) manifestation of it. So, in this study, we present a case of Lance Adams type myoclonus. There were 35 (47.3%) stress hyperglycemic male and 11 (44%) female. Most common presenting feature was seizure (60%) followed by headache, focal deficits and fever. Oral contraceptive pill use was found to be the most common causative factor. Other common causes seen were meningoecephalitis, paraplegia and herpaeocagal states (like India) burdened with TB lymphadenitis. Proper FNAC is never sufficient to start ATT & it has to be supported by clinical signs and symptoms like metabolic encephalopathy, alcohol intoxication, vitamin deficiencies etc mimic paraneoplastic LE. Malignant meningeal infiltration can begin as a single cranial nerve palsy progressing to involve multiple neural tracts. Corticosteroid administration delays the diagnosis of lymphoma CNS infiltration. Repeat CSF examination and neuroimaging at proper intervals help in diagnosing unusual cases.

CNS Involvement in Lymphoma: Our Experience with Two Unusual Cases
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Bhopal Hospital

Introduction: When compared with developed countries, incidence of lymphoma is lesser in India, while mortality rate is almost equal. This disparity is due to delayed diagnosis resulting from confusing presentations, lack of diagnostic facilities in rural India, in-affordability, incomplete treatment & poor follow up. CNS involvement of lymphoma can be direct infiltration or paraneoplastic neurological syndromes. Direct CNS infiltration is even in primary CNS lymphoma which is highly resistant in Hodgkin’s lymphoma (HL) than in non-Hodgkin’s lymphoma (NHL). Case reports Case 1 A middle aged male (69 years) presented with multifocal T2 signal changes. Based on this, diagnosis of Hirayama disease was made. Case 2 A young lady presented with isolated LMN facial palsy. In due course, she was diagnosed as SCNSL (NHL) with multiple cranial neuropathy & polyradiculopathy. Discussion Malignant lymphadenopathy is often misdiagnosed as TB. It is important to keep in mind that due to the lack of aspiration cytology (FNAC) rather than excision biopsy. FNAC is never sufficient to start ATT & it has to be supported by clinical signs and symptoms like metabolic encephalopathy, alcohol intoxication, vitamin deficiencies etc mimic paraneoplastic LE. Malignant meningeal infiltration can begin as a single cranial nerve palsy progressing to involve multiple neural tracts. Corticosteroid administration delays the diagnosis of lymphoma CNS infiltration. Repeat CSF examination and neuroimaging at proper intervals help in diagnosing unusual cases.

Predictor of Mortality and 30-Day Disability in Patients Admitted with Acute Incident Stroke
Urvashi J, Kalantar SP
Mahatma Gandhi Institute of Medical Sciences, Sevagram, Maharashtra

Introduction: Stroke is the leading cause of death worldwide. About 1 of 10 with hemorrhagic stroke die within 30 days. The study was designed to identify predictors of in-hospital mortality or disability at discharge.

Material and methods: We enrolled consecutive patients admitted with stroke to the ICU of a large, not-for-profit rural teaching hospital in central India. All patients underwent neurological evaluation, laboratory tests, and neuroimaging. All patients received the typical standard
stroke. GCS possessed a better predictive power compared to mortality (PPV 71.7%, NPV 92.6%).

73.3% sensitive and 92% specific for predicting 30-day mortality: OR 1.25 [95%CI 1.14-1.39].

The second theory is that the neurologic disease creates an imbalance between sympathetic and parasympathetic outputs favouring sympathetic dominance. The relative state of autonomic imbalance could result in increase in plasma catecholamine levels that triggers ECG changes. These systemic effects develop more slowly but are also lasting longer and cause damage to the myocardium.

Methodology: The material of the study comprised of 100 patients admitted in ASRAM Medical College between August 2017 to September 2018.

Inclusion Criteria: Cases of CVA (CT scan proved) admitted within 72 hours after the onset of stroke were selected for the study; patients admitted beyond 72 hours after onset of stroke were excluded as the incidence of ECG changes beyond 72 hours were infrequent.

Exclusion Criteria
1. Traumatic cases producing neurological deficits, infection, neoplastic cases producing CVA. CVA cases with known underlying cardiac diseases, which produce ECG changes.
2. After a detailed history regarding the temporal profile of the stroke including history of risk factors like hypertension, diabetes, smoking, history of IHD and rheumatic heart disease were obtained.

EGC criteria
1. Heart rate less than 60/ min was regarded as bradycardia and rate exceeding 100/ min was regarded as tachycardia.
2. ST segment depression of 0.5 mm or elevation of more than 1 mm were taken abnormal.
3. T-wave was considered abnormal when inversion of T-waves in which it should have been upright i.e., I, II, III, V3-V6 may be variable in III, aVL, V1 and V2.
4. QTc Prolongation: The QT interval is measured from the beginning of the QRS complex to the end of T-wave, the rate corrected QTc is obtained by dividing the actual QT by the square root of the RR-interval (both measured in seconds). QTc was taken as prolonged if it more than 0.44 secs.
5. U-wave was taken as significant when exaggeration on the myocardium.

• It is evident that ECG abnormalities among infarct group, U-wave (51.47%), QTc prolongation (36.76%) were the most common abnormalities followed by T-wave inversion (30.88%) and ST-segment depression (30.88%).

• In cases of hemorrhage group ST segment depression (56.26%) and U wave (56.26%) were the most common abnormalities followed by prolonged QTc (50%) and T wave inversion (28.13%).

Discussion: A hospital based prospective study was done to know the ECG changes had any prognostic significance in stroke patients.

In this study, CT scan was mandatory in the inclusion criteria to prove the stroke and the type of stroke.

Among the 100 patients 58 were males and 42 were females (sex ratio was M:F = 1.4:1); age ranged from 24-92 years and the mean age of patients of alive and dead were 58.73 and 34 years respectively. The cases of stroke were more common in the 5th and 6th decade.

Conclusion
1. ST segment depression, QTc prolongation and U are the common ECG abnormalities in hemorrhagic strokes
2. QTc prolongation and U-waves are the common ECG abnormality in ischemic stroke.
3. ECG abnormalities in stroke patients do not any prognostic significance.

Summary: This is a hospital based prospective study done in ASRAM medical college during the period of August 2017 to September 2018 which comprised of 100 patients.

• Stroke was most common in 5th and 6th decade.
• Males had higher predominance among all the stroke patients.In Infarct group,51.45% were males, whereas females were 48.55%. In hemorrhage group 50.37% were males whereas females were 49.63% with male-female ration of 1.4:1.
• Hypertension was the most common risk factor comprising 45% followed by smoking 26%, past history of stroke 22%, diabetes mellitus 15% and the least was hyperlipidemia with 8%.
• Headache was presenting complaint in 23% of patients in infarct group and 65.62% of patients in hemorrhage group.
• Vomiting was present in 19.11% among infarct patients whereas in hemorrhage group 78.12%.
• Convulsions were present in 8.82% in infarct group, whereas it was 12.50% in hemorrhage group.
• Right sided hemiplegia was present in 51.47% in the infarct group, whereas in hemorrhagic group it was 18.75%.
• Left sided hemiplegia was present in 22% in infarct group, whereas it was 6.25% among hemorrhage group.
• It is evident that ECG abnormalities among infarct group, U-wave (51.47%), QTc prolongation (36.76%) were the most common abnormalities followed by T-wave inversion (30.88%) and ST-segment depression (30.88%).

In cases of hemorrhage group ST segment depression (56.26%) and U wave (56.26%) were the most common abnormalities followed by prolonged QTc (50%) and T wave inversion (28.13%).

Electrocardiographic Changes in Stroke Patients.
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Introduction: Cerebrovascular accident (CVA)or stroke is the most common life threatening disorder. It is the third leading cause of death in the developed countries after cardiovascular disease and cancer.

It is responsible for about 80% of all first ever in a lifetime strokes. Primary Intracerebral hemorrhage for 10% and subarachnoid hemorrhage for 5%.

Many studies have shown CVA associated with ECG changes.

Changes occurring in ECG following stroke were T-wave changes, QT interval prolongation, QT interval and some pathological arrhythmias, these ECG changes may resemble those of myocardial ischemia or sometimetime myocardial infarction.

Aims and Objectives
1. To study the different changes in ECG in the cases of CVA.
2. To assess the different changes have got any prognostic significance in these cases.

The most commonly observed ECG changes following stroke are :

Prominent U waves
Ischemic pattern with ST segment depression and various arrhythmias, ST segment elevation, Sick sinus syndrome, Paroxysmal atrial tachycardia, Wandering pacemaker and rarely other arrhythmias.

There are two primary theories the etiology of ECG changes following stroke. The first is that brain damage to neurologic structures that have direct connections to the autonomic nervous system. Stimulation of these structures causes augmentation of catecholamines that triggers ECG changes. These systemic effects develop more slowly but are also lasting longer and cause damage to the myocardium.

Methodology: The material of the study comprised of 100 patients admitted in ASRAM Medical College between August 2017 to September 2018.

Inclusion Criteria: Cases of CVA (CT scan proved) admitted within 72 hours after the onset of stroke were selected for the study; patients admitted beyond 72 hours after onset of stroke were excluded as the incidence of ECG changes beyond 72 hours were infrequent.

Exclusion Criteria
1. Traumatic cases producing neurological deficits, infection, neoplastic cases producing CVA. CVA cases with known underlying cardiac diseases, which produce ECG changes.
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EGC criteria
1. Heart rate less than 60/ min was regarded as bradycardia and rate exceeding 100/ min was regarded as tachycardia.
2. ST segment depression of 0.5 mm or elevation of more than 1 mm were taken abnormal.
3. T-wave was considered abnormal when inversion of T-waves in which it should have been upright i.e., I, II, III, V3-V6 may be variable in III, aVL, V1 and V2.
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5. U-wave was taken as significant when exaggeration on the myocardium.

Spontaneous intracranial hypertension is characterized by postural headache and low opening pressure at lumbar puncture without obvious cause. Recurrent spontaneous subarachnoid hemorrhage is a serious but rare complication of spontaneous intracranial hypertension. High clinical suspicion is necessary to diagnose spontaneous intracranial hypertension in patients with subdural hematoma. Here is a case series of 4 patients with average age of 53.4 years who presented with recurrent subdural hematoma and underwent burr hole procedure later diagnosed to have spontaneous intracranial hypertension.

Clinical Profile of Hypokalemic Periodic Paralysis
Rakesh Pilla1, R. Renuka2, PC Mishra3
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Objectives: HHP is the most common disorder of muscle membrane excitability. Rarely affecting respiratory, ocular, bulbar muscles and cardiac arrhythmias. Present study is to evaluate the cases of hypokalemic periodic...
A Unusual Case of Haemorrhagic Encephalitis
Vikram Kodurupaka, M Narendra¹, S Vishal Kumar²
¹Associate Professor, ²Assistant Professor, Department of General Medicine, Gandhi Medical College, Secunderabad, Telangana

Results: The following are the clinical profiles (most common) among the study. Age between 21 to 30 years (62%), Male gender (75%), family history (63%), quadriplegia (75%), ECG abnormalities (80%) and Sr. Potassium (2.1-3 mEq/L), 80% doesn’t have any predisposing precipitating factor. Known precipitating factor being carbohydrate rich diet followed by sleep.

Conclusion: At risk people are more prone in third third decade and males with first degree positive family history are more prone. A larger study with more number of patients can throw more light.

A Rare Case of Cerebral Sinus Venous Thrombosis Due to Iron Deficiency Anaemia
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Case History: A 14 year old male patient presented with headache, neck pain, vomiting by following weakness of both lower limbs. No history of fever, No history of seizures, No history of bowel and bladder involvement.


Investigations: CBC –Hb%, RBC, WBC- normal. Low platelets. Motor Function: Normal. HIV Non reactive, HBsAg Negative, HBc Ag Negative, HBV, RPR Negative. ESR normal.

DTR: increased. Sensory system – normal.

Discussion: Acute transverse myelitis is an inflammatory demyelinating disorder of spinal cord resulting in symmetric motor, sensory and autonomic dysfunctions. The incidence of acute transverse myelitis varies from 1 to 4 per 100,000. It is a major cause of noncompressive myelopathy in India.

It commonly presents as bilateral lower limb weakness with bowel and bladder dysfunction and sensory involvement in the form of tingling and numbness. In this case of acute transverse myelitis, patient presented with acute flaccid monoparesis without sensory or autonomic dysfunction.

A 13 years old female patient presented with acute onset weakness of left lower limb with history of fever 7 days prior to the episode. Power was grade 3 in hip and knee and grade 2 in ankle. Plantar reflex of right and left side were flexor and indeterminate respectively. There was no sensory or autonomic dysfunction. Nerve conduction studies and CSF examination were normal. Case was notified to WHO and stool samples for poliomyelitis were sent and were negative. MRI spine revealed transverse myelitis at L1-L2 levels. Patient was treated with methylprednisolone and modified Barthe score showed improvement in motor function. Patient showed significant improvement in bladder and bowel function.

Late Onset Post-Partum Eclampsia presenting as Posterior Reversible Encephalopathy Syndrome
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Introduction: Posterior reversible encephalopathy syndrome (PRES) is a rare but serious clinical-neurological entity associated with the characteristic imaging findings including sub-cortical vasogenic edema at the bilateral parietal and occipital lobes. Pre-eclampsia and eclampsia are the most common causes of PRES. However, late postpartum eclampsia concurrent with PRES is rare. We present one such case.

Materials and Methods: A 25 year old married woman with a history of 2 spontaneous abortions to rule out connective tissue disease was admitted to the ER on day 5 post partum (post LSCS) with complaints of 1 episode of new onset GCTs which lasted for 10 minutes associated with up rolling of eyes, tongue bite, drooling of saliva, loss of consciousness-lasting for 15 minutes and headache which started 30-40 minutes prior to the onset of seizure-severe, holocranial and throbbing type. No history of seizures prior to the pregnancy. Patient did not have history of hypertension or diabetes during the pregnancy. Serology done antenatally was normal.

On examination, BP was 140/90 mmHg, PR 98bpm. Systemic examination revealed GCS: 15/15, no focal neurological deficits and bilateral flexor plantar response. Fundoscopy examination was normal with normal evidence of hypertensive retinopathy.

Preliminary hematological and biochemical tests were within normal limits. MRI with MRV showed multiple deep grey and white matter lesions at bilateral occipital, posterior parietal and right front region (right) suggestive of atypical posterior reversible encephalopathy. Patient was delivered and the radiological evaluation was obtained because of the history of spontaneous abortions to rule out a connective tissue disorder. ANA, anti-dsDNA, serum C3 and C4, anticardiolipin antibody, lupus anticoagulant, antitheta II/ glycoprotein were done and were normal. Hence, APLA rules out. DEX/CHRO was normal. Lumbar puncture was done - Normal study. EEG-Normal.

Results: In view of late onset post partum seizure the patient was started on Inj. Mgso4 and anti-hypertensives.

Isolated Bilateral Intracerebral Ophthalmoplegia - A Rare Manifestation of Ischemic Stroke
Jiju M Ignatius
Sree Gokulam Medical College, Kerala

Introduction: Bilateral Intracerebral Ophthalmoplegia (B/IO) is most often seen in an association with acute cerebrovascular events, demyelinating diseases, degenerative CNS disorders, paraneoplastic syndromes, CNS infection, inherited mitochondriopathies and rarely, PRES. In literature, description of INO in association with vascular events is unilateral and with other focal neurological deficits, mostly related to haemorrhagic stroke. There are only very few reported cases in literature describing isolated bilateral INO associated with ischemic stroke.

Case Report: 61 year old male, chronic smoker, diabetic presenting with sudden onset worsening of vision with lateral gaze and difficulty in walking. Examination revealed minimal exotropia and fine gaze evoked abducing nystagmus with restriction of adduction in both eyes (video). Convergence was normal. Other cranial nerves, motor, sensory and cerebellar functions were normal. MRI Brain showed no acute infarct and CSF study was within normal limits. Patient was started on steroids but showed no significant improvement. Repeat MRI showed Lacunar infarct in upper dorsal Pons.

Discussion: Bilateral INO with no other accompanying focal neurological signs occurs in ischemic CVA when there is occlusion of distal end of long circumferential branches of basilar artery causing damage to the medial longitudinal fasciculus (MLF) of both sides. Hence, diagnosis requires high clinical suspicion and focused examination of dorsal midline structures. Bilateral INO presents very rarely for a thrombotic CVA to cause isolated bilateral INO.

Conclusion: In elderly patients with risk factors, development of isolated bilateral INO with no definite cause should evoke the suspicion of ischemic stroke affecting both MLF even in the presence of normal imaging and must be treated with anticoagulants and statins. Delay means loss of golden hours in CVA.

Conclusion: CT and MRI show that the area of involvement in the form of tingling and numbness. In this way, a larger study with more number of patients can throw more light.
A Case of Post Traumatic Guillain Barre Syndrome
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Ramiah Medical College, Bengaluru, Karnataka

Introduction: GBS is an inflammatory demyelinating polyneuropathy characterised by areflexic ascending paralysis, generally starting less than 4 weeks after infection. GBS presenting after traumatic brain injury (TBI) is rare.

Case Report: Mr Y, 55 year old male known diabetic on medications presented with history of road traffic accident and loss of consciousness, C/brain done revealed an ICH of left temporal region. Patient was ambulatory and was managed conservatively. Patient developed respiratory distress and was intubated and put on mechanical ventilation. A diagnosis of aspiration pneumonia was made after repeat CT scan brain showed no new changes. Patient had now i.e. after two weeks developed weakness of both bilateral upper and lower limbs. On examination patient was conscious and obeying simple commands, Ophthalmoplegia present, were no nerve reflexes, ataxia of all limbs with motor weakness grade 1/5 in all 4 limbs with absent DTR’s, Plantar’s B/N mute. MRI brain done showed no evidence of intracranial mass and infection on CT or MRI, CSF analysis. The most common form is idiopathic. It causes Papilledema and if left untreated may lead to profound visual loss. The association of lower motor neuron facial weakness with this condition is unusual. Treatment includes weight loss, acetazolamide and surgical options.

Conclusion: Diagnosis and prompt initiation of treatment of this condition is necessary to prevent permanent blindness.

A Retrospective Observational Study to see Neurological Manifestations in HIV Positive Patients. Is it Really Changing Post 2011?
Chitrangada Shivaji Yadav, Vinay Kulkarni, Rahul Kulkarni
Deenanath Mangeshkar Hospital, Pune, Maharashtra

Introduction: The Nervous System is the most frequently and seriously involved system in HIV. Neurological complications in HIV constitute about 33% to 38% in total. These complications include those caused by HIV virus like Neurocognitive disorders, myelopathy and Peripheral Neuropathy or by Immunocompromised states like Fungal, Tubercular, Toxoplasmosis, Neurocysticercosis, CMV, CNS lymphoma etc. With the advent of HAART in 1996 Neurological complications with HIV infection have shifted from disorders related to immunological state to those due to complications of therapy.

Studies related to neurological involvement in HIV in India have been published in the past but the change in Neurological Spectrum following the advent of HAART is not well documented. We intend to study the prevalence and Neurological manifestations in HIV infections as an observational study for the past 5 years in Deenanath Mangeshkar Hospital, Pune.

Aim: To study the spectrum of neurological manifestations at present in HIV infected patients in a Tertiary Care Centre post HAART for the last 6 years.

Methodology: Study Population-All HIV positive patients and admitted in the IPD.
Sample Size –All HIV positive patients admitted in IPD over the past 5 years June 2012 to May 2017.

Inclusion/Criteria-All HIV positive patient/symptomatic and asymptomatic/diagnosed with Standard Diagnostic tests

Exclusion Criteria-All HIV negative patients

Result: The Total Number of HIV infected patients in our study was 1168. The Total Number of patients with Neurological Manifestations was 249 (Prevalence-21.31%) and the total number of Neurological Manifestations was 358. Average Age of patients was 46. Male 60.5%, Female 39.5%.

The commonest manifestation was Opportunistic Infections of which TB Meningitis was the commonest (43%) followed by Cryptococcal meningitis (27%). The second most common manifestation was Stroke (39 cases) As compared to a study done by Pujari and Wadia et all in 2012 to 0.3% in 2017. The analysis of Data with respect to male vs female, there was no significant difference. The prevalence of total number of HIV admissions is showing a reducing trend from 0.8% in 2012 to 0.3% in 2017. In the analysis of Data with respect to cause of death and the classification of patients as per their HIV virus type is pending.

Neurological Manifestations

Year wise Distribution

<table>
<thead>
<tr>
<th>Year</th>
<th>1/6/2012-</th>
<th>1/6/2013-</th>
<th>1/6/2014-</th>
<th>1/6/2015-</th>
<th>1/6/2016-</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>31/5/2013</td>
<td>31/5/2014</td>
<td>31/5/2015</td>
<td>31/5/2016</td>
<td>31/5/2017</td>
</tr>
<tr>
<td>Number</td>
<td>111</td>
<td>74</td>
<td>56</td>
<td>62</td>
<td>35</td>
</tr>
<tr>
<td>TB Meningitis</td>
<td>31/5/2013</td>
<td>6/6</td>
<td>9/6</td>
<td>(9/6)</td>
<td>7/11</td>
</tr>
<tr>
<td>Cryptococcal Meningitis</td>
<td>31/5/2013</td>
<td>12/16</td>
<td>(12/16)</td>
<td>(7/11)</td>
<td>5/14 (5/12)</td>
</tr>
<tr>
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<td>(8/7)</td>
<td>10/15</td>
<td>9/6</td>
<td>3/14</td>
</tr>
<tr>
<td>Encephalo-</td>
<td></td>
<td></td>
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</tbody>
</table>

Conclusion: This study may help Clinicians in stratifying and treating HIV complications in future with specific therapies improving the quality of life of patients.

A Rare Association of Neurogenic Pulmonary Edema with Neurocysticercosis
A Mohmed Ibrahim
Govt. Stanley Medical College, Chennai, Tamil Nadu

Introduction & objectives: Neurogenic pulmonary edema (NPE) is a clinical syndrome characterized by the acute onset of pulmonary edema following a significant central nervous system (CNS) insult. The etiology is thought to be a surge of catecholamines that results in cardiopulmonary dysfunction. A myriad of CNS events, including spinal cord injury, subarachnoid hemorrhage (SAH), traumatic brain injury (TBI), intracranial hemorrhage, status epilepticus, meningitis, and subdural hemorrhage, have been associated with this syndrome. Although often identified 40 years ago, it is still understudied in the clinical arena.

Materials and Methods: A 24 years old man, male labor by occupation admitted with breathlessness following an episode of high risk sexual behavior. On examination tachypnea, bilateral basal crackles was present. SpO2-82%with room air and 96% with CPAP ventilation. CXR showed bilateral alveolar opacities. ABG showed PaO2/Fio2 -129. Routine blood investigations, ECG, ECHO was normal. Sputum examination for AFB, C&S; KOH mount were negative. Since all causes of pulmonary edema were ruled out, it was diagnosed as neurogenic pulmonary edema. MRI Brain showed Neurocysticercosis.

Results: Routine investigations, HIV, ECG, ECHO, 5p uterine abortion explained him rule out other differential diagnosis.

Conclusion: Patient had high risk sexual behaviour and CXR was suggestive of PCP but his tests were inconclusive for PCP and this was diagnosed as Neurogenic pulmonary edema. Incidence of neurogenic pulmonary edema is rare in patients surviving seizures. Through literature review, it is found to be a rare association of neurogenic pulmonary edema with neurocysticercosis.

Visual Acuity and Posterior Segment Findings in HIV Infected Patients with Macular Edema
S K Naik, G V Swaminathan, S Nadh, K Menon, V N Jayalakshmi, K A P V Govt Medical College, Trichy, Tamil Nadu

Aims of the Study: (1) To study the proportion of patients with macular oedema treated with intravitreal ranibizumab with/without photodynamic therapy, having a deterioration by at least 2 lines of best corrected visual acuity (BCVA) and (2) To assess the factors influencing the deterioration.

Methods: A prospective, non-randomised, single arm, case series study was performed. 104 patients with macular oedema related to HIV were included. The patients were followed up after 1 month, 3 months and 6 months. The data was analyzed with SPSS 16.0 software.

Results: The improvement in BCVA was maintained in 71.8% of cases. In 22.1% of patients, the BCVA improved by ≤2 lines from 3 months to 6 months. 6.9% of patients had a deterioration in BCVA by ≥2 lines.

Conclusion: In our study, the deterioration in BCVA was rare (6.9%) which was significantly lower than that reported by the Yee group (14%). The factors that contributed to deterioration included longer duration of macular oedema, lower baseline BCVA, reduced macular thickness and focal macular oedema on OCT images.

Follow up of patients with HIV and a history of tuberculosis: a retrospective study
Suresh Thirumurugan, G Srinivasan, T Sadasivaiah, Karthik Sivaranjini, S Subramani
Department of ophthalmology, MAMC, Chennai, Tamil Nadu

Objective: To evaluate the visual outcome following the diagnosis of tuberculosis in HIV patients.

Methodology: A retrospective study of patients who were diagnosed with tuberculosis in the last 5 years (2012-2017) after screening for TB in an era of HAART was performed. The study population included all patients diagnosed with tuberculosis who were on HAART.

Results: Out of 261 patients diagnosed with tuberculosis, 58 were HIV co-infected. The visual acuity improved from 0.6 (±0.3) to 0.9 (±0.3) in the study group. The proportion of patients with vision improvement was significantly higher in the study group compared to the control group (P < 0.05).

Conclusion: The use of HAART improved the visual outcome in patients with tuberculosis. Further studies are needed to evaluate the long-term effects of HAART on the visual outcome in patients with tuberculosis.
Introduction: A rare case of spinal cavernoma was treated with intravenous steroid and followed by supportive treatment. The CSF examination of this patient was also normal. MRI Brain with cerebral angiography revealed "segmental narrowing", "slight irregularity", or "constriction", of the intracavernous carotid artery. The CT brain images showed no abnormalities.

Results: After administering injectable methyl prednisolone for 5 days there was improvement in the vision and diplopia also resolved. Supportive treatment was also given and patient improved within 5-7 days of treatment.

Conclusion: A rare case of Tolosa hunt syndrome presented with bilateral eye pain, diplopia, diminution of vision and ophthalmoplegia, having MRI abnormality suggestive of narrowing of intracavernous carotid artery and treated with intravenous steroid and followed by remission.

Clinical Profile, Treatment and Outcome of Adult Patients with Acute Encephalitis Syndrome in Tertiary Care Hospital of North India
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Introduction: Acute encephalitis syndrome (AES) is a term used by WHO for syndromic surveillance in the context of Japanese encephalitis (JE). This definition not only includes viral encephalitis but also all etiologies of fever and altered consciousness. This study is done to describe and analyze etiologies, clinical presentations, treatment and outcomes of adult patients with AES.

Methods: An observational study including 200 patients fulfilling the criteria for AES was conducted in patients aged more than 13 years in Department of Medicine, King George’s Medical University, Lucknow between September 2018 and August 2019. Multivariate logistic regression analysis was used to analyze factors associated with good (modified Rankin Scale Score of 0-2) or poor (scores of 3-6) outcome at hospital discharge.

Results: We identified 200 patients (116 [58%] men and 84 [42%] women) with a median age of 32 years (range 13-83). Main etiological agents were Scrub typhus (n=28, 14%), Lassa fever (n=22, 11%), Dengue (n=17, 8.5%), Yellow fever (n=5, 2.5%), Japanese encephalitis (n=4, 2%) and West Nile Virus (n=4, 2%). The median age of patients with AES was 18 years. 28.13% patients with acute ischaemic stroke had age group of 61-70 and 15.63% were above the age of 70 yrs. Important Risk factors in acute stroke were hypertension(51%) diabetes(29.3%) age above 70 yrs(29%), female gender(19%) and lifestyle(14.2%). CT/MRI/Brain with angiography revealed "segmental narrowing", "slight irregularity", or "constriction", of the intracavernous carotid artery. The CSF examination of this patient was also normal. The CT brain images showed no abnormalities.

Results: After administering injectable methyl prednisolone for 5 days there was improvement in the vision and diplopia also resolved. Supportive treatment was also given and patient improved within 5-7 days of treatment.

Conclusion: A rare case of Tolosa hunt syndrome presented with bilateral eye pain, diplopia, diminution of vision and ophthalmoplegia, having MRI abnormality suggestive of narrowing of intracavernous carotid artery and treated with intravenous steroid and followed by remission.

Clinical Etiological Spectrum of Hypokalemic Paralysis in Tertiary Care Hospital
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Introduction and Objectives: To study the clinical features, etiology and outcome of patients with HPP (hypokalemic periodic paralysis). Acute flaccid paralysis is a potentially reversible medical emergency and differentials include neurologic, metabolic and infectious etiologies. It presents with acute muscular weakness and can be life threatening.

Methods: A cross sectional prospective observational study in a single tertiary care centre of 58 patients from November 2015 to August 2017.

Results: Male to female ratio was 1.1:1 with mean age of 33.3 years. Quadriplegia was the predominant presentation (neck & facial muscles, diaphragm, bowel/bladder). History of past similar episodes was present in 54% subjects. Most common precipitating factor was dehydration. Serum potassium (K+) ranged from 1.5-2.5 mmol/L in 44% patients. 69% had U-waves on ECG and 35% patients had 1.5-2.5 mmol/L and 1.5-2.5 mmol/L had U-waves on ECG. VBG (Venous blood gas) analysis suggested metabolic acidosis in 62.5% patients and only 1% had alkalosis with rest having normal VBG. Urine K+/Cr (potassium to creatinine ratio) was high (>13mEq/gm) in 62%. 68% patients recovered within 6 days, rest after 6 days with majority to require cumulative dose of potassium ranging 501-750 mEq. 56 patients recovered, 2 died of type I respiratory failure.

Conclusion: Common causes for HPP in our study were sporadic periodic paralysis and renal tubular acidosis. Among patients with HPP, 64% had secondary causes. Presence of acidity or alkalosis in arterial blood gas analysis suggests a renal etiology for paralysis. Spot urine K+/Cr ratio helps to distinguish the diagnostic categories of HPP (Hypokalaemia paralysis due to K+ shifts) with non-HPP (Hypokalaemia due to K+ deficits). There was female predominance in HPP. Comanet hypomagnesaemia if present should be corrected.

A Rare Case of Spinal Cavernoma
Jakkala Srikrishna, Burga Tejaswi
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Introduction: Cavernous venous malformation is non-neoplastic slow flow venous malformations found in many parts of the body. These account for 8-15% of all central nervous system vascular malformations with spinal cord being involved in 3-5%. cavernomas are sinusoid structures with thin walls, which are composed of collagen lined by a single layer of endothelial.Outside the lumen there are often macrophages containing iron pigment, hemosiderin, phagocytosed after microbleeds.

Case Report: 34 year old lady presented with 20 days history of • Low backache radiating to right lower limb pain slightly decreased over a period of 2 days. • Later she developed similar radiating pain in left lower limb • 10 days after onset of pain, complaint of sleepless nights with awareness • Difficulty in walking, difficulty in getting up from floor • Numbness of both lower limbs • Bladder and bowel involvements were normal • Motor Upper limbs: 5/5 • Lower limb : Hip Flexion : 3/5 3/5 • Hip Extension : 2/5 2/5 • Adduction : 3/5 3/5 • Abduction: 3/5 3/5 • Knee 3/5 • Ankle 3/5 • EHL weak. Deep Tendon reflexes B. BJ TI KJ AJ • RIGHT: 2+ 2+ 2+ 2+ Left: 2+ 2+ 2+ 2+ Plants: Bilateral not elicitable. Sensory pain and temperature were decreased upto knees with vibration decreased up to Jnsk stoop lost upnote.

Investigations: CBP, ESR, RFT, Serum Electrolytes, LFT, CUE, EEG, 2D Echo, Chest X-ray: Normal.

Susceptibility weighted imaging of brain- blooming in lt. frontal area. S/o bleed.

T2 weighted imaging of brain- popcorn lesion with surrounding hyperintensity SA- Arteriovenous malformation.

Discussion and Conclusion: Cavernous venous malformation (CVM) is found anywhere in the body including the central nervous system. More common in female with peak age of presentation in fourth decade and thoracic spine found to be the commonest site. Cavernous hemangiomas, or cavernomas, of the CNS are rare. The term “popcorn” hyperintensity on T2 weighted FLAIR and long T1, short T2 signal is specific imaging for CVM. The available literature demonstrates the benign nature of intramedullary CVM and no early surgical intervention is advocated with good outcomes and no reported recurrences.

Assessment of Headache In Patients Presenting With Seizure
Saumya Vinishri, Atul Agrawal, AK Thacker, Sandeep Choudhary, Minhaz Ahmad, Tauseef Ahmad
Dr. Ram Manohar Lohia Combined Hospital, Lucknow, Uttar Pradesh

Introduction and Objectives: Peri-ictal headache is seen in 40-60% of epileptic patients, more commonly during complex partial seizures. It is more likely to occur when there is a secondary cause of seizure. Thus, this study was undertaken to analyze headache in patients presenting with seizure and its association with the cause and their temporal relationship (preictal, ictal or postictal).

Material and Methods: This study was conducted on 173 patients presenting with seizure (within 3 days). They were subjected to a semi-structured interview to elucidate the onset, duration, site and intensity of headache, and any recent history regarding the causation of seizure and its type.

Results: Prevalence of headache was 76.87% being more commonly associated with generalized tonic-clonic than with seizure of focal onset (p=0.016). It was most commonly seen in the postictal phase. The intensity was mild in 23.3%, moderate in 52.6% and severe in 24.0%. Precedent headache increased the likelihood of finding a specific structural lesion on neuroimaging (p=0.001).

Conclusion: Headache is a common accompaniment of seizure and its history must be elucidated in all seizure patients. Among seizure patients with a precedent of headache, specific structural lesions must be thoroughly sought via neuroimaging.

Association of Peripheral Vascular Disease in a Patient with Ichaemic Stroke
Nikhil Bharat Ingle, N Punhani S Bajpai
Seth GS Medical College KEM Hospital, Mumbai, Maharashtra

Introduction: Periarterial peripheral disease(PAD) causes progressive narrowing of the lumen of peripheral arteries and acts as marker for increased risk for ischemic stroke.

Aims & Objectives: We aimed to study the prevalence of asymptomatic PAD in patients with acute ischaemic stroke and to correlate the risk factors associated with acute ischaemic stroke and PAD and also correlate carotid artery involvement in patients with PAD.

Methods: A total of 96 patients admitted with ischemic stroke were included in this study done between July 2016 and December 2017. Details of these patients were noted. CT/MRI/Brain with angiography, Bilateral carotid artery doppler and Ankle brachial pressure index(ABPI) were used to establish correlation between PAD and ischaemic stroke.

Results: Of 96 patients studied 65.63% were males and 34.37% were females with mean age being 58.03±11.02 years for males and 58.33±16.16 years for females. Of all the stroke patients 32.39% were below 50 years of age, 28.13% were between 51-60yrs, 23.96% were in the age group of 61-70 and 15.63% were above the age of 70 years. 28.13% patients with acute ischaemic stroke had PAD and 52.08% were females and 47.92% were males with peak age of 51-60yrs, 40.8% were between 51-60yrs, 22.22% were in the age group of 61-70 and 14.8% were above the age of 70yrs. Important Risk factors in acute stroke were hypertension(51.1%) diabetes(22.2%) dyslipidemia(31.3%) tobacco chewing(30.2%) and that in PAD were hypertension(51.1%) diabetes(22.2%) dyslipidemia(25.9%) tobacco chewing(25.9%). 3.7% cases of PAD had bilateral carotid artery stenosia whereas 18.5%
cases had left carotid artery stenosis.

Conclusion: About four patients of acute ischaemic stroke and asymptomatic PAD which was best screened by using ABPI, Hypertension, DM, dyslipidemia and tobacco chewing was significant risk factors for both ischaemic stroke and PAD. About one fifth of the patients had carotid stenosis.

A Rare Case of Creutzfeldt-Jakob Disease
Ajay Anandrao Sontakke, Arun Tyagi
DVPF Medical College and Hospital, Ahmadnagar, Maharashtra

Creutzfeldt-Jakob disease (CJD) is a rare, fatal neurodegenerative disorder caused by a proteinaceous infectious particle that lacks nucleic acid called prion. With time, the disease-causing PrPSc can accumulate and aggregate to the levels that result in brain tissue damage, neuronal death and development of CJD, that causes rapidly progressive dementia. This disease is uniformly fatal and most patients die within 12 months. Clinical findings include myoclonus, visual disturbances, and cerebellar and pyramidal extrapyramidal signs in addition to rapidly progressive cognitive and functional impairments. In a study follow-up, she was diagnosed with probable sporadic Creutzfeldt-Jakob disease based on Centers for Disease Control and Prevention (CDC) criteria. Reiter’s criteria and findings of rapidly progressive dementia, bilateral visual disturbances, myoclonus and bilateral hyperintensity in basal ganglia on diffusion-weighted MRI. Over the period of 10 days since admission, patient condition starts deteriorating like Rapid progression of dementia and cognitive dysfunction, difficulty in swallowing, Unable to walk and Spasticity in all limbs. The patient was started on symptomatic treatment and general nursing care, patient was discharged after explaining the prognosis of disease to relatives. A literature review was performed on differential diagnoses that present with rapidly progressive dementia and thereby mimic sporadic Creutzfeldt-Jakob disease. These include Alzheimer’s disease, dementia with Lewy Bodies, frontotemporal dementia, meningoencephalitis, corticobasal degeneration, progressive supranuclear palsy, CAGASIL, and paraneoplastic encephalomyelitits.

Serum Uric Acid as a Risk Factor for Acute Ischaemic Stroke
Agrawal Akhil Ashok, Dipankar Deb
Department of Medicine, Sijchar Medical College, Assam

Introduction and Objectives: Acute ischaemic stroke is one of the leading causes of morbidity and mortality worldwide, and varies in type, severity, and presentation from case to case. The most significant risk factor for acute ischaemic stroke was enrolled and were compared with same number of age and sex matched healthy controls.

Results: There was a statistically significant higher level of serum uric acid level in patients with acute ischemic stroke (5.72±1.53 mg/dl) on day of admission as compared to controls (3.92±0.86 mg/dl). A higher level of uric acid was associated with increased mortality in cases of acute ischaemic stroke.

Conclusions: Serum uric acid can be regarded as an inexpensive independent risk factor and prognostic marker of short term mortality in patients with acute ischaemic stroke.

Semi quantitative Analysis of Cerebrospinal Fluid Chemistry and Cellularity Using Urinary Reagent Strips for the Diagnosis of CNS Infections
Indrajit Udradiya, Deopri Sharma
GMc, Kota, Rajasthan

Introduction & Objectives: Rapid diagnosis and prompt treatment remains the cornerstone of management of patients with various CNS infections. Hence, we conducted this study to evaluate role and reliability of urine reagent strip for the semi quantitative analysis of CSF chemistry and cellularity.

Methods: Single blind diagnostical clinical trial was conducted over hundred patients, aged 18 y admitted in our hospital with suspected diagnosis of CNS infection. CSF samples were taken for laboratory evaluation and rapid sensitivity, specificities, predictive positive value and the negative predictive values of the reagent strips for the diagnosis of CNS infection were calculated. The results were established.

Results: Highly significant association was observed between CSF examination in routine laboratory method and dipstick method. Out of 100 subjects comprised 03 cases. The strip showed a high sensitivity (94%) and specificity (98.5%) for leukocytes ≤10 cells/μm and the strip showed a sensitivity of 93% and a specificity of 98.5% for proteins at a cut-off 20 μg/ml. With respect to glucose, the strip had 100% specificity and 98.5% sensitivity at cut-off ≥250 μg/l. For leukocytes ≤10 cells/μm was 97.04%; for proteins ≥20 μg/ml it was 97%; and, for glucose ≥50 mg/dl it was 99.00%.

Conclusions: Reagent strip analysis is a very rapid, reliable and effective method for detection of various CNS infections. Technique will be useful in rural areas. Early diagnosis and initiation of treatment can reduce the mortality and morbidity associated with various CNS infections.

A Case Report of Quadriaparesis in Dengue Fever due to Hematoma
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Vijaya Hospital, Chennai, Tamil Nadu

Dengue fever, a common tropical infection in India can present with criteria for hemophagocytic syndrome in 0.5% to 20% of cases. Here we report a case of acute quadriaparesis in a 66 year old female diagnosed with Dengue, presented with history of fever for one week settling 3 days prior to admission. Melena and back pain was present for 3 days following which she developed sudden onset quadriaparesis. Power was 1/5 and 0/5 in upper and lower limbs respectively. DTRs were absent with spastic plantar reflex. Sensory examination was normal. Her illness started in South Coast region of the state of Tamil Nadu in India during the months of September to December 2017. Investigations showed thrombocytopenia and hypokalemia. Provisional diagnosis of hypokalemic paralysis was made and potassium supplementation was given. Fresh plasma and single donor platelets were transfused to correct bleeding manifestations. Despite achieving normokalemia, weakness did not improve. Dengue NS1Ag, IgM and IgG were positive. Following that, IVig was administered suspected CVA which didn’t help either. Patient had to be intubated in view of respiratory paralysis. Despite IVig and potassium supplementation weakness persisted. MRI brain with spine was done. MRI Brain showed intraventricular and subarachnoid hemorrhage. MRI spine showed subarachnoid hemorrhage in cervical and dorsal spinal cord. Patient eventually died. Hematomyelia or intramedullary spinal cord hemorrhage often leads to permanent disability which could be due to traumatic or atraumatic causes. Hematomyelia due to thrombocytopenia is never reported, hence carries a poor prognosis due to the inability to intervene surgical. Though common causes of quadriaparesis in a dengue case include hypokalemia paralysis, myositis, transverse myelitis and Guillain Barre syndrome, suspicion of Hematomyelia is also warranted as bleeding tendency secondary to thrombocytopenia and platelet dysfunction is an important element in the pathogenesis of the disease.

Weston-Hurst Syndrome in a case of Mixed Connective Tissue Disorder: A Rare Link
Devina Roy, Arup Mandal
Burdwan Medical College and Hospital, Burdwan, West Bengal

Introduction: Acute hemorrhagic leukoencephalitis (AHL), also known as Weston Hurst Syndrome is a rare, inflammatory demyelinating disorder of central nervous system due to an excessive immunological response of unknown etiology with high mortality (70%). Association between AML and Connective tissue disease (CTD) is unheard of. A rare case of AHL associated with MCTD is being reported.

Report of the case: A 33 year old female presented in comatose condition following high grade intermittent fever for seven days. She had a GCS score of E1 V1 M3, was febrile having diluted pupils reacting sluggishly to light with bradycardia. Neurological examination showed marked deviation of all four eye movements with small tendon reflexes and bilaterally extensor planter response. MRI brain showed multiple focal altered intensities within the white matter of both cerebral hemispheres with small multiple “blooming” in GRE sequence. Antibodies to U1-snRNP were strongly positive along with a positive anti-RoM2/Band 3 antibody. She was started on Intravenous immunoglobulin (IVIG) to which she responded well with almost near complete resolution of the white matter abnormalities by two months.

Discussion: AHL, considered the most severe form of acute disseminated encephalomyelitis (ADEM), is a rapidly progressive inflammatory demyelinating disorder of the white matter. The etiology remains unknown, but cross-reactivity between human myelin antigens and viral or bacterial antigens is supposed to induce an excessive immunological response to CNS. Usually the autoimmune process targets central nervous system myelin and spares the peripheral. Given the likely immune-mediated nature of the disease, treatment with IVIG may lead to neurologic improvement.

Conclusion: In this case a middle aged female with MCTD presented in comatose condition with fever and after thorough neurological examination and imaging a diagnosis of AHL was reached. Even though it is very fatal, this patient was salvaged by timely institution of immunoglobulins.

A Study on Aetiology, Clinical Profile and Risk Factors of Young Stroke
Meenu Rose Jomy, S Savarakar
Jagadguru Jayadeva Muruganaraja Medical College, Davanagere, Karnataka

Introduction: Stroke is one of the leading causes of morbidity and mortality worldwide. Stroke in young adults is rare but not uncommon. Worldwide more than two million young adults have an ischemic stroke yearly. Young stroke is of major concern because of high healthcare costs and loss of labour productivity. 40% increase in incidence of young stroke has been reported over the past decade. The prevalence of standard modifiable risk factors in young stroke patients is different from adults.

Materials and Methods: 50 patients 19-45 years, meeting WHO stroke criteria was included in the study. Patients with traumatic injury and transient ischemic attack were excluded. CT brain and lipid profile were done for all patients. Complete CNS examination was done for all patients. Radiological investigations other than CT brain were done in selected patients. Other relevant investigations to rule out atherosclerotic cause were done. Over the past decade, prevalence of young stroke patients is different from adults.

Results: Incidence of stroke in young adults is more common in age group between 36-40 years and males are more affected (64%) than females (36%). Smoking is the most significant risk factor. For ischemic stroke, smoking is one of the leading causes of morbidity and mortality worldwide. Stroke in young adults is rare but not uncommon. Worldwide more than two million young adults have an ischemic stroke yearly. Young stroke is of major concern because of high healthcare costs and loss of labour productivity. 40% increase in incidence of young stroke has been reported over the past decade. The prevalence of standard modifiable risk factors in young stroke patients is different from adults.

Spectrum of Restless Leg Syndrome
Agniba Maiti, Anurup Kr Bhattacharya, Soumita Ghosh
IPGMER, Kolkata, West Bengal

Introduction and Objectives: Restless leg syndrome is a neurologic sensory motor disease often profoundly disturbing sleep and quality of life. The pathophysiological expression influenced by genetic, environmental and medical factor. It is often overlooked. We have conducted an one year study from October 2017 to July 2018 at IPGM and KATC with an objective to evaluate the causes of restless leg syndrome.

Materials and Methods: Patient’s was diagnosed on the basis of 2012 revised International Restless Legs Syndrome Study Group diagnostic criteria. Statistical biochemical tests done. Special test like serum iron profile, serum vitamin B12 also done. Peripheral nerve study included EMG & NCS as and when necessary. Few cases was subjected to MRI lumbar spine.

Results: Among the 54 cases 32 were female,22 were male. According to age the patients were early onset(454yrs)RJLS, 18 patients were between 45 to 60 yrs, 28 patients were greater than 60 yrs. 12 cases was due to iron deficiency anaemia(M<11),11 was due to
Urinary Neutrophil Extracellular Trap and Eosinophils in Acute Ischemic Stroke: A Novel Marker for the Diagnosis of Stroke

Introduction: Neutrophil extracellular traps (NETs) and eosinophils are known to be involved in the pathogenesis of stroke, but their role in the diagnosis of stroke remains unclear. The aim of this study was to investigate the role of NETs and eosinophils as diagnostic markers for acute ischemic stroke.

Methods: This was a prospective, observational study. Blood samples were collected from patients with acute ischemic stroke within 24 hours of symptom onset. The levels of NETs and eosinophils were measured using flow cytometry and immunofluorescence microscopy.

Results: A total of 50 patients with acute ischemic stroke were enrolled in the study. The median level of NETs in the stroke group was significantly higher compared to the control group (p < 0.001). Similarly, the median level of eosinophils in the stroke group was also significantly higher compared to the control group (p < 0.05).

Conclusion: Neutrophil extracellular traps (NETs) and eosinophils are novel markers for the diagnosis of acute ischemic stroke. Further studies are needed to confirm these findings and establish the role of NETs and eosinophils in the diagnosis of stroke.

The Association between Serum Uric Acid Concentration at Presentation as an Indicator of Outcome in Acute Ischemic Stroke

Introduction: Hyperuricemia has been associated with a higher risk of cardiovascular disease, including stroke. The aim of this study was to investigate the association between serum uric acid levels at presentation and outcome in patients with acute ischemic stroke.

Methods: This was a retrospective cohort study. Serum uric acid levels were measured at presentation in patients with acute ischemic stroke. The primary outcome was mortality at 90 days. Kaplan-Meier survival analysis was used to compare survival between different uric acid levels.

Results: A total of 100 patients were included in the study. The median serum uric acid level was 5.8 mg/dL. The 90-day mortality rate was significantly higher in patients with higher uric acid levels (p < 0.05). Kaplan-Meier survival analysis showed a significant difference in survival between different uric acid levels.

Conclusion: Serum uric acid levels at presentation are associated with mortality in patients with acute ischemic stroke. Further studies are needed to confirm these findings and establish the role of uric acid in the pathogenesis of stroke.

Multiple Bleed Staining as a Cause of Stroke in Young

Introduction: Stroke is a leading cause of disability and death in young adults. The aim of this study was to investigate the role of multiple bleed staining as a cause of stroke in young adults.

Methods: This was a retrospective case-control study. Patients with ischemic stroke aged 18-40 years were included. The control group consisted of age-matched patients without stroke. The presence of multiple bleed staining was determined using brain MRI.

Results: A total of 100 patients were included in the study. Multiple bleed staining was present in 20% of stroke patients. The median age of patients with multiple bleed staining was significantly higher compared to the control group (p < 0.05). The presence of multiple bleed staining was associated with a higher risk of stroke recurrence (p < 0.05).

Conclusion: Multiple bleed staining is a rare cause of stroke in young adults. Further studies are needed to confirm these findings and establish the role of multiple bleed staining in the pathogenesis of stroke.
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with chief complaint of progressively increasing weakness of all four limbs for 2 days. The patient was admitted in intensive care unit. All the patients had history of high-grade fever and generalised body aches for several days prior to hospitalisation. On neurological examination, only findings was quadriaparesis with diminished reflexes. Higher mental functions, cranial nerves sensory system and co-ordination were normal. Plantar reflexes were also normal.

The significant finding in all the patients was thrombocytopenia and hypokalemia. Their dengue NS1 antigen and IgM antibody was positive, while RFTs, TFTs and LFTs were normal. There was no evidence of bleeding.

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Introduction: Thalamic Aphasia Syndrome is an interesting case with an Ischemic Infarct Akshata K, Anand koppad, Ishwar Hasabi, Atchayaram Nalini, BK Wagh,WAG

KIMS Hubli, Karanataka, NHMHS Bangalore Karanataka

Introduction: Thalamic Aphasia Syndrome is an interesting case with an Ischemic Infarct Akshata K, Anand koppad, Ishwar Hasabi, Atchayaram Nalini, BK Wagh,WAG

KIMS Hubli, Karanataka, NHMHS Bangalore Karanataka

Conclusion: knee jerk was absent, tendon reflexes were sluggish. This case presentation describes the lesion in thalamus due to ischemic infarct which highlights the language function of thalamus.

Objective: To examine language characteristics in a case of thalamic stroke.

Methodology: Linguistic functions were studied in a 54-year-old, right-handed, native Kannada speaker, graduate, mechanical engineer, who presented with right hemiparesis and right UMN facial palsy showing thalamic stroke, confirmed with MRI brain. Language was assessed 2 months post stroke with Western Aphasia Battery (Kanada, WI BAW) as well as informal conversational and findings were interpreted.

Results: On WAB in Kannada, the Fluency score was 8, Auditory Comprehension was 9.5, Repetition was 10 and Naming score was 5.5. Reading scores were good (96) and Writing had very few linguistic errors. Writing score was poor more due to graphomotor issues (right hand weakness). The Aphasia Quotient was 83.3 (Mild Aphasia) and the taxonomic classification suggested Anoma. An informal conversation pertaining to his family, job and such topics revealed increased word finding difficulty. If and when cueing was not provided in the conversation, the word finding difficulty was more obvious. Otherwise, few perseverative responses and semantic paraphasias were also present.

Novel oral motor imitation for range of movement was assessed using side lip retrieval task and there was no protrusion due to right UMN palsy. Intelligibility of speech was good. Overall, considering the site of lesion and the language-speech test findings, a diagnosis of Subcortical (Thalamic) Aphasia was made.

Conclusion: Subcortical aphasia are considered as exceptional aphasia. The thalamic lesion in this case presented with hemiparesis which supports the role of thalamus in providing lexical information.

Sinking Skin Flap Syndrome Basavaraj Shivappa Kumbar, Robert Mathew Sree Mookambika Institute of Medical Sciences Kulasekaram, Kanyakumari, Tamil Nadu

Introduction: Sinking skin flap syndrome or “syndrome of the trephined” is a rare complication after a large craniectomy, with a sunken skin above the bone defect with neurosurgical symptoms such as severe headache, mental changes, focal deficits, or seizures.

Aim: To report a case of 37 year old male hypertensive patient with right sided hemiparesis and hemisensory loss presented with deterioration with severe depression of the skull bone defect area resulting from decomposing cranioectomy and ICH evacuation against left temporo parietal hemorrhage, that developed 3 months back.

Presentation of Case: 37 year old male patient, with history of recent fronto parietal craniectomy and ICH evacuation was transferred to our hospital for followup and further management.

His past history goes like this. Patient known case of syncope for 5 years and when on regular treatment was asymptomatic until he became unconscious all of sudden on 1/18 while he was watching television. It was associated with vomiting and urinary incontinence.

He was immediately taken to a territory care centre nearby where he was diagnosed to have left temporo parietal hemorrhage and decompressive craniotomy with ICH evacuation was done on the same day and was monitored in ICU setup.

He was on ventilator support for 16 days. As the patient had respiratory difficulty, tracheostomy was 10 days after the surgery.

Patient got discharged 44 days after the cranioectomy and he came SMIMS, one week later in above said presentation.

On Assessment his blood sugar was pulse rate 90/ min, BP: 160/130 mmHg; SPO2 – 96%.

Systemic examination findings will be discussed.

The brain computed tomographic (CT) scans showed

• Hypodense area noted involving the white cortical matter of left parietal and fronto cortex with involvement of subcortical and external capsule region.
• Features of volume loss.
• Abnormal outline of left fronto-temporo-parietal convexity noted with large cranioectomy defect and gliotic changes present on same side.

Discussion: Yamamura first reported the “trephined” or the “sinking skin flap” (SSF) syndrome in literature in 1977.

Sinking skin flap syndrome is defined as serious disabling neurologic deficits and impairment of general status with concave deforrmity and relaxation of the skin flap and it tends to develop several weeks to months after large external cerebral decompression.

Cyclophosphamide: The Wonder Drug in CIDP Kumari Archana, Sanjay Kumar, Panika Hans, Zorinpurni Khiangte, Israrul Haque, MP Singh

Patna Medical College, Patna, Bihar

Introduction: Chronic Inflammatory Demyelinating Polyneuropathy (CIDP) is an acquired progressive/ relapsing disorder affecting the peripheral nervous system. It is considered as the chronic equivalent of AIDP. The treatment consists of immunosuppression. It can be classified as demyelinating or axonal CIDP. In our case, it presented as demyelinating CIDP.

Objectives: To evaluate cyclophosphamide as an efficient and cheap treatment alternative for CIDP.

Materials and Methods: This study was conducted in the Department of Neurology at Patna Medical College and Hospital. A total of 6 cases of CIDP were studied. They were diagnosed on the basis of clinical features, CSF findings and electrophysiological grounds. They were followed for 18 months.

In the selected patients, steroids were to be spared due to relative contraindications.

Each patient was given monthly pulse doses of injection cyclophosphamide 500 mg for 6 consecutive months.

Patients were monitored for cyclophosphamide toxicity with hemogram, renal and liver function tests and USG KUB region.

Results: Of the 6 patients, 2 patients had full recovery of motor power. The other 4 also had significant improvement in motor power and were able to walk on their own after treatment. All of them had improvement in their sensory symptoms.

Conclusion: The results showed significant improvement in all the cases. Thus, it was concluded that in a developing country like India, where IVIG and plasma exchange are not easily available due to cost, the cyclophosphamide can be considered as a cheap and effective treatment alternative in CIDP.

An Atypical Case of Lateral Medullary Syndrome – A Neuroanatomical Dilemma Uddalak Chakraborty, Muhaminul Islam Khan, Jyotirmoy Pal, PS Kamarak, Atanu Chaudhuri

Department of General Medicine, R.G. Kar Medical College and Hospital, Kolkata, West Bengal

Introduction: Lateral medullary syndrome is one of the most common brainstem strokes attributed commonly to vertebrobasilar artery occlusion; identified by classical triad of ipsilateral Horner’s syndrome, lateral medullary syndrome and hypalgasia of face with contralateral hemisensory loss.

Case Details: A 49 year old diabetic, non hypertensive post monopausal female was admitted with severe vertigo and vomiting following bouts of loose stool. She gradually developed thromboaesthesia and hypalgasia of left face followed by right sided hemiparesis and thermoanesthesia and hypalgasia. A UMN type facial palsy was found in her left face along with partial plosis of left eye. A second degree horizontal jerk nystagmus with an upward torsional component was noticed with fast component beating towards right. Left sided cerebellar signs were positive with nystagmus of left eye and ataxia of gait supported by aberrant corticofacial fibres which descend along ventrolateral medulla and ascend again dorsolateral to supply the contralateral facial motoneurons. The contralateral hemiparesis can be explained by extension of infarct to involve the ipsilateral corticospinal tract just before its divergence to corticospinal tract resulting in Brown-Sequard Syndrome(BNS). In our case BNS was associated with UMN facial palsy.

Conclusion: Hence, to explain all the atypical features in this case, clinico-anatomical correlation is required to solve the differential involvement of tracts and fibres and thus the neuroanatomical dilemma.
management of complex complication in rheumatoid arthritis.

Conclusion: Complex RA-associated pleuro-pulmonary disease can be managed successfully with combination of steroids and rituximab.

An Unusual Presentation of Pulsesless Disease
Devisaranya Subramanian, S Alagesan
 Tirunelveli Medical College, Tirunelveli, Tamil Nadu

Introduction: Takayasu’s arteritis also called “Aortic arch syndrome and pulseless disease” is a form of large vessel granulomatous vasculitis with massive intimal fibrosis and vascular narrowing commonly affecting young women.

Case-1: Miamaram, 52/F came with C/O breathlessness on exertion for the past 6 months, class III-IV, K/ of valvular heart disease on medication for the past 20 years. O/P, patient tachypnoeic, dyspnoeic, pulse felt only in dorsalis pedis artery of both lower limbs, character pulsus bisferiens with large volume and BP 220/40 mmHg recordable only in lower limbs.Auscultation reveals ESM of Grade-III heard over aortic area and conducted to the right arm, over spleen area, conducted to axilla, EDM Grade-IV heard over left 3rd ICS. ECHO reveals moderate AR and MR.Aortic angiogram shows findings of aortic arch.

Case-2: Sunandeshwari, 48/F came with C/O headache and giddiness on and off for the past 26 years, C/O claudication pain on walking for few yards and relieved with rest. She has a left arm of absent vessel left arm after denying house hold activities for the past 26 years. K/ of hypertension for the past 26 years. On examination左手, deep reflexes were normal for the past 20 years. O/P, patient short stature, erect, left arm in hypoplastic pulse, is felt only in the right radial artery with BP 210/50 mmHg, bruit heard over right paraaortal area, bilateral intercostal area and abdominal renal bruit and carotid bruits present. ECHO reveals concentric LHV. CT aortogram reveals multiple vessel wall stenosis with extensive collaterals, type-N disease.

Discussion: Case-1: Known case of RHD presented late with features of takayus’s arteritis.

Case-2: Limb disparity is a rare presentation of takayasu’s arteritis giving a differential diagnosis of atypical variant of co-arctation of aorta.

Conclusion: Valvarul involvement shows poor quality of life than vessel wall involvement along with extensive collaterals.

Fever of Unknown Origin - A Diagnostic Challenge – A Case Report
Manayam Anandamani, Pl, karthik, Js Kumar
SRM Medical College Hospital and Research Centre, Chennai, Tamil Nadu

Introduction: Sarcoidosis is an inflammatory disorder of unknown cause characterized by the presence of non-caseating granulomas, which can involve multiple organs of the body. About 6% of Sarcoidosis with Evans syndrome is rare and a association further studies need to assess the disease prognosis and outcome.

Case Report: A 17-year-old female presented to us with complaints of fever for more than a month, continuous high grade associated with chills and rigors, patient also had non-hilious vomiting multiple episodes associated with diarhoea and abdominal pain for 10 days. Patient was admitted in several hospitals, investigated extensively. On examination patient was found to be febrile, pallor with tender hepatomegaly. Initial Laboratory extensively. On examination patient was found to be febrile, pallor with tender hepatomegaly. Initial Laboratory investigations showed anaemia (Hb-8.2) with altered liver function test (ALT-101, AST-242, ALP-1050, GGT-332), USG abdomen and CT abdomen (contrast) showed gross hepato-gonadal. Bone marrow biopsy showed hyperplasia of megakaryocytes with reactive plasmacytosis.

On further investigating ANA, SMA, PML, SP 100, LKM1, LKM2, UC1, AMA M2 was found to be negative. Liver biopsy showed necroinflammatory granulomatous hepatitis with steatotic changes. S ACE was found to be elevated. During the course in the hospital patient developed severe thrombocytopenia and direct coombs test was positive. After extensive investigation patient was diagnosed to have Sarcoidosis, Immune thrombocytopenia. Direct coombs test positive hyperplastic anaemia - F/S/O. Evans syndrome.

Conclusion: Even though hepatic Sarcoidosis in not uncommon, association of Sarcoidosis with immune thrombocytopenia was rarely been investigated. There were case series that found association between pulmonary Sarcoidosis with immune thrombocytopenia with poor prognosis. However there is no literature published so far showing the association between hepatic Sarcoidosis with Evans syndrome.

Anemia in Systemic Lupus Erythematosus: Aetiological Profile and Correlation with Various Autoantibodies
Sunil Mishra, Rajan Kapoor, Vivek Vasdev
Department of Internal Medicine, Army Hospital Research and Referral, Delhi

Introduction and Objectives: Anaemia is a frequent occurrence in SLE, affecting most patients at some time in the course of their disease. The main objective of this study is to assess how the different profiles of auto-antibodies with subtypes of anaemia.

Materials & Methods: A retrospective study was conducted among serving & retired defence personnel and their families in Department of Rheumatology and Haematology at Army Hospital (Research & Referral) for a period of 1 year. 124 patients of SLE were screened and 75 anaemic patients were selected for study. Anaemic patients were subgrouped based on their aetiology and further correlation with various autoantibodies was done.

Results: In this study, prevalence of anaemia was 60.5%; out of which 10% were secondary and 50% were primary. Anaemic profile revealed Anaemia of Chronic Disease (AODC) as the most common cause of anaemia accounting for 73.3% of all patients while Iron Deficiency Anaemia (IDA) was seen at 10.7%. Auto-antibody profiling of the anaemic patients divulged Anti-dsDNA (40%). Anti-dsDNA antibodies were seen in half of the patients (26/55) with AODC, and in most patients with nutritional anaemia (7/8), but were less common among patients (2% for heat loss anaemia and 7% for haemolytic anaemia (1/12). Correlation of anti-dsDNA with anaemia in SLE patients was found to be statistically significant (p<0.05).

Conclusion: Our study hints towards positive correlation among anaemic patients and anti-ds DNA autoantibodies. However, more elaborate studies with larger sample size are required to confirm our results.

A Study of Haematological Manifestations of Systemic Lupus Erythematosus with Special Reference to Disease Activity
Prasanta Dihingia, T Karthikeyan, Anshu Kumar Jha
Associate Professor, Department of Medicine, Senior Resident, Department of Gastroenterology, Department of Medicine, Assam Medical College, Dibrugarh, Assam

Introduction: Systemic Lupus Erythematosus is a prototype autoimmune disease and as blood and blood vessels contain more diverse number of antigens than any other organ in the body, it’s natural to expect hematological manifestation of the body. However, in systemic lupus erythematosus disease characterized by a progressive lymphocytic infiltration of the extraglandular glands with varying degrees of systemic involvement. One of the extraglandular manifestation of primary sjoergen syndrome is overt or latent renal tubular acidosis (RTA). In this study, we evaluated renal tubular acidosis in lupus patients and compared between the two groups.

Results: 71.6% Rheumatoid Arthritis cases were insulin resistant whereas the same in controls was 21.4%, although the mean BMI was lower in the former (22.78±2.71 vs 23.21±3.20), Insulin resistance was more prevalent (69.8%) in those with high disease activity (DAS28>5.1). Blood pressure, BMI, waist-hip ratio and lipid profile were compared between the two groups.

Conclusion: This is a case-control study consisting of 102 cases of Rheumatoid Arthritis diagnosed by ACR/EULAR 2010 and a similar number of age and sex-matched healthy controls. Insulin resistance was calculated using HOMA-IR model based on fasting glucose and fasting insulin levels. Those having HOMA-IR values greater than 2.5 were considered insulin resistant. HOMA-IR values were correlated to disease activity (using the DAS28 score). Blood pressure, BMI, waist-hip ratio and lipid profile were compared between the two groups.

Hypokalemic Periodic Paralysis as a presenting Manifestation of Primary Sjögren’s Syndrome
Aadish Kumar Jain, RG Dhawale, SB Gawankar, Ashish Sharma, Vyasha Bandi, Anushree Mahadevan
R.G.ardi Medical College, Uljain, Madhya Pradesh

Primary Sjögren’s syndrome (pSS) is an autoimmune disease characterized by a progressive lymphocytic infiltration of the extraglandular glands with varying degrees of systemic involvement. One of the extraglandular manifestations of primary Sjögren’s syndrome is overt or latent renal tubular acidosis (RTA). In this study, we evaluated renal tubular acidosis in lupus patients and compared between the two groups.

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A Case Series of Uncommon Presentations of Anti-Phospholipid Syndrome
Harish, Rajendra, Prabhu, Senthil Kumar
KAPV Govt Medical College, Thrity, Tamil Nadu

Introduction : Antiphospholipid Syndrome is a systemic autoimmune disease characterised by recurrent arterial or venous thrombosis. This is a case series of 3 unreported manifestations of Antiphospholipid Syndrome.

Case Report 1: 34 year old female had come with complaints of severe head ache and CT scan revealed a Acute thin SDH associated with diarhoea and abdominal pain for 10 days. Patient was admitted in several hospitals, investigated extensively. On examination patient was found to be febrile, pallor with tender hepatomegaly. Initial Laboratory investigations showed anaemia (Hb-8.2) with altered liver function test (ALT-101, AST-242, ALP-1050, GGT-332), USG abdomen and CT abdomen (contrast) showed gross hepato-gonadal. Bone marrow biopsy showed hyperplasia of megakaryocytes with reactive plasmacytosis.

On further investigating ANA, SMA, PML, SP 100, LKM1, LKM2, UC1, AMA M2 was found to be negative. Liver biopsy showed necroinflammatory granulomatous hepatitis with steatotic changes. S ACE was found to be elevated. During the course in the hospital patient developed severe thrombocytopenia and direct coombs test was positive. After extensive investigation patient was diagnosed to have Sarcoidosis, Immune thrombocytopenia. Direct coombs test positive hyperplastic anaemia - F/S/O. Evans syndrome.

Conclusion: Even though hepatic Sarcoidosis in not uncommon, association of Sarcoidosis with immune thrombocytopenia was rarely been investigated. There were case series that found association between pulmonary
A Case of Pyoderma Gangrenosum Misdiagnosed as Necrotizing Infection: A Potential Diagnostic Catastrophe

M Sai Tej Reddy, Shyam Sunder, Srikant Gandhi Medical College, Secunderabad, Telangana

Introduction: Pyoderma gangrenosum (PG) is a rare inflammatory condition of unknown etiology. PG generally presents as an initial papule, pustule, or nodule after minor trauma, progressing to painful deep necrotic ulcers that wax and wane over time. Rapidly progressing PG is often erroneously diagnosed as a malignant neoplasm. Surgical debridement of lesions compounds the initial pathic phenomenon, which accelerates the necrotic process when compared to that of pyoderma gangrenosum (PG), misdiagnosed initially as a necrotizing infection that significantly worsened due to repeated surgical debridement and aggressive wound care therapy.

Case Report: 28 yrs old female presented with chronic ulcers over left lower limb which was gradually progressing, which initially was a small papule or pustule at the inner part which later on progressed to a non-healing ulcer. She had recurrent ulcers over hands and legs since 4 years which heal with wrinkled paper like appearance once year. Patient visited surgeon that was thought to have necrotizing fasciitis because of its aggressive spread of ulcer and surrounding erythema. On surgical debridement there was acceleration of necrotic process due to pathogenic phenomenon and later diagnosis was reviewed. On provoking patient also gave a history that she had pain in multiple joints, CRP levels are elevated, anti CCP antibodies were positive. Skin biopsy was suggestive of pyoderma gangrenosum. Patient was put on steroids and antibiotics and healing of ulcers within 3 weeks.

Discussion: PG is classified as a neutrophilic dermatosis, without evidence of infection. Pathergy is an important feature that, if present, can support the diagnosis of PG. The entity is diagnosed as a pathergy test positive, nodules that progress from (days to weeks) to a painful ulcer or erosion with raised borders. PG is secondary to an underlying condition such as IBD, hematological malignancy, autoimmune disease, etc.

So they must be evaluated for underlying etiology.

Conclusion: In summary, we present a case of PG misdiagnosed as a necrotizing infection with multiple surgical interventions resulting in a pathogenic phenomenon, with the underlying disease of rheumatoid arthritis was diagnosed. treated with steroids and had dramatic improvement in healing of ulcers. not all ulcers are to be surgically intervened and nonhealing ulcers with aggression of disease after surgical intervention much think of pathergic phenomenon was like pyoderma gangrenosum and managed accordingly.

A Case Series of Neurological Manifestations- As First Clinical Presentations in SLE

Bhaskara Sravya Sree, M Raja Rao, Deepak Gandhi Medical College, Secunderabad, Telangana

Introduction: Systemic lupus erythematosus (SLE) results from chronic and recurrent activation of the immune system, with production of antibodies and other substances responsible for inflammation and tissue damage. SLE is a disease with typical onset in the childbearing years and most common in females. Patients present with neurological manifestations, which is the first clinical presentation is rare. Hereby I present two cases who presented with neurological features and then diagnosed with SLE.

Case Series

Case 1: A 27 yr old female presented to ER with sudden onset of weakness of right upper and lower limbs with altered sensorium preceded by vomiting and headache recovered within 24hrs. Later she had numbness of right upper limb and was found black in next 3 days. After evaluation she has ANA, Anti dsDNA positive with lupus anticoagulant positive with MRI BRAIN with MRA – small lacunar infarctions in left precentral region and diagnosed with SLE with APS

Case 2: A 25 yr old male presented with tingling and numbness of bilateral lower limbs with walking on walking increasing on closing eyes to 20s. On examination there is power of 4/5 in both lower limbs with no deep tendon reflexes with joint position and vibration sense loss in lower limbs. On investigations NCS showing absent SNAPs & s/o sensory neuropathy further cfs of investigation normal and ANA turned to be positive, Anti ds DNA positive

Conclusion: the neurological manifestation in SLE accounts to 20% of total of these first clinical presentation as neurological feature is very rare.

Churg Strauss Syndrome

P Karthik Kumar, Nalini Kumaravelu, Vajayakalsh, Sivaraman

Stanley Medical College, Tamil Nadu

Introduction & Objective: Churg strauss syndrome is an eosinophil-rich and granulomatous inflammation involving respiratory tract with necrotizing vasculitis affecting small to medium sized vessels associated with asthma, eosinophilic leucocytosis, eosinophilic pneumonitis, and cutaneous manifestations. Eosinophilic pneumonitis was diagnosed in an asymptomatic case with a positive role of ANCA.

Materials & Methods: 38 yrs old female, a known case of bronchial asthma admitted with acute exacerbation along with loss of sensation over b/l limb and common peroneal distribution. Her history was significant for nasal polyps, allergic rhinitis, and asthma throughout the year. Her investigations showed eosinophilic leucocytosis with absolute eosinophil count of 16000/mm³ with positive ESR and CRP and strongly positive c-ANCA. Skin biopsy showing perivasculare inflammation and focal fibrinoid necrosis with numerous eosinophils with motor neuropathy on both UL and LL and LIV spared sensory fibres on NCS. Diagnosed as churg strauss syndrome and treated with cyclophosphamide and high dose intravenous steroids.

Conclusion: A case of churg strauss syndrome presenting as resistant asthma with mononeuritis multiplex responding well with administration of high dose steroids(methyl prednisolone) and cyclophosphamide.

Pulmonary Embolism Complicating Enteritis in SLE

Jiju M Ignatius

Sree Gokulam Medical College, Kerala

Introduction: SLE is a common autoimmune disease, with 90% of patients being women of child bearing age. Majority of disease burden remains undiagnosed in our population because of late presentation and organ manifestations develop. Although complication of the disease include many organ systems, 15% of SLE patients develop thrombosis at some point in life, majority of them being venous(10%). Here, is a case of undiagnosed SLE presenting with nephritic syndrome and enteritis leading to renal vein thrombosis and culminating in pulmonary embolism.

Case Report: 30 yr old female with history of arthritis and autoimmune hypothyroidism, presented with fever and several episodes of loose stools and vomiting for 2 weeks. No associated blood or mucus in stools. She was pale and her stool routine was positive. She was started on i.v. antibiotics and fluids with no improvement. On 3rd day, she developed severe right sided flank pain and passed cola coloured urine, ultrasound abdomen showed dilated biliary loops and right renal vein thrombosis extending to IVC. Hence, she was started on anticoagulation with warfarin and heparin. Next day, she woke up with severe shortness of breath, right sided chest pain and hypotension. ECG showed sinus tachycardia, chest xray revealed right pleural effusion, echo normal and CT angiogram proved pulmonary embolism. She was evaluated in detail, was strongly positive for anti-dsDNA (256.76IU/ml) and urine protein with protein casts with no urine microscopy. Her APLA workup was negative and C3, C4 levels were in the lower range of normal.

Discussion: Nausea, sometimes with vomiting and diarrhea, is a common complaint, and a gastrointestinal tract can be severely involved. Intestinal ulceration may cause, as can abdominal pain probably caused by autoimmune peritonitis or intestinal vasculitis. This patient had enteritis; probably immune mediated, and also associated nephritic syndrome which complicated an already prothrombotic condition with a subsequent development of pulmonary embolism.

Conclusion: Active SLE disease and nephrotic syndrome are highly prothrombotic states and development of pulmonary embolism is not an uncommon event. This case highlights the importance of not missing this disorder in adults presenting with thrombotic phenomenon and hypokalemia paralysis.

Unusual Presentation of Wegeners Granulomatosis in a Young Male

Chaitadevi Shivali Yadav, Anuj Tewari, Vijay Amitrak, Vaijayanti Lagu Joshi,Vinay Kulkarni

Deenanath Mangeshkar Hospital and Research Centre, Pune, Maharashtra

Introduction: A case of Granulomatosis with polyangiitis presenting as digital gangrene, which is a very rare presentation.

Case Report and Discussion: A 22 year old male, developed left ear discharge in January 2018 followed by right. He was evaluated by ENT physician and was being treated as a case CSOM, received multiple antibiotics. His disease progressed over the next two months, with mucositis and high grade fever since 15 days. He presented to us in March 2018 with digital gangrene of all the limbs with peripheral edema. Further work up showed anaemia, proteinuria and protein casts. Based on clinical suspicion immunological workup was sent. C-ANCA was strongly positive with skin biopsy showing features of leukocytoadhesion. It is important to consider this disorder in adults presenting with the hypothesis paralysis.

Conclusion: Distal Renal Tubular Acidosis can be the initial presentation of primary Sjogren Syndrome. It is important to consider this disorder in adults presenting with hypokalemia paralysis.

Study of Cardio-Respiratory Manifestations and their Correlation with CDAI in RA Patients

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Introduction & objectives: Rheumatoid arthritis is a chronic, progressive, multisystemic autoimmune disease. Cardio-respiratory manifestations such as pericardial effusion, pericardial thickening, left ventricular dysfunction, pleural disease, iud, nodules in lungs,
boop. Objectives are to study the cardio-renal-reparatory manifestations and association with CDA1 and also the duration of disease.

Materials & Methods: This is the prospective study in which patients are being diagnosed on the basis of eular duration of disease.

Results: The study of 50 cases up till now showed hypertension, myocardial infarction, mild diastolic dysfunction, interstitial lung disease, dyspnea.

Conclusion: Multicentric reational manifestations in RA occur irrespective of severity of disease activity.

A Rare Case of Rheumatoid Arthritis with Concurrent Multicentric Reticulohistiocytosis
Sujata Devi
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Introduction: Multicentric reticulohistiocytosis (MRH) is a rare multisystem macrophage disorder of unknown aetiology characterised by palpebral mucosal and cutaneous lesion, rapidly progressive erosive symmetric polyarthritis and inflammatory nodules within the internal organs. Most often it is misdiagnosed as Rheumatoid arthritis (RA).

Case Report: We report a case of 60 year old female presented to medicine OPD with complaint of symmetrical polyarthralgia. She reported progressive morning stiffness of more than 2 hours duration and was on NSAIDs on and off. She noticed palpebrum pruetic skin, bilateral hand swell, external aspera, dorsi of hands and pinnae for one year with history of spontaneous remission and recurrences. On physical examination brownish papulonodular lesions over the pinnae, scalp, elbow, right forearm. Musculoskeletal system involving synovitis of knee, ankle, shoulder, elbow, wrist. MCP and PIP joints sparing DIP joints without any deformity was found. Laboratory workup showed microcytic hypochromic anaemia, elevated ESR. 88 mm/hr. Anti-CCP titre >128mU/l to be SLE.

Aims and Objectives: This study aims to investigate the microbiological profile of VAP causing organisms and their antibiotic susceptibility patterns in ICU patients.

Inclusion Criteria: ICU patients who are intubated and on mechanical ventilation for more than 48 hrs. in whom VAP is clinically suspected.

Source of Data: Endotracheal aspirates, endotracheal tube tips after extubation.

Exclusion Criteria: patients who have developed pneumonia within 48 hrs of mechanical ventilation.

Methods of Sample Collection: samples from 101 clinically diagnosed cases of VAP were collected.

Results: The incidence of VAP in our study was 57.14% and incidence of VAP is directly proportional to the duration of mechanical ventilation.

Case Series of Jaundice in SLE
P Dino Abirami
Combatore Medical College Hospital, Tamil Nadu

Introduction: The study aims to investigate the occurrence of thyroid dysfunction in SLE and its management.

Methods and Results: Case 1: A 28 year old female presented with polyarthralgia, fever, proximal muscle weakness, dry cough and progressive breathlessness from 2 months duration. Investigations showed Hb-2.8, plt-98000, S.bilirubin-2.4mg%, ALT-324 IU/L, AST-356 IU/L, ALP- 136 IU/L, platelet- 214000, AST-356 IU/L, ALP- 136 IU/L, S.bilirubin-2.4mg%.

Discussion: There exists a controversy regarding the choice of steroid in Autoimmune hepatitis in SLE.

Conclusion: Occurrence of thyroid dysfunction in SLE is significantly higher than general population. Symptoms of thyroid dysfunction mimic those of SLE. Hence a lupus panel with non-specific suggestive symptoms, should undergo thyroid function testing and early treatment initiation to avoid morbidity.

The final diagnosis was SLE with Evan’s Syndrome (Autoimmune Hemolytic Anemia) and was treated with steroids, hemodialysis and responded well to treatment.

Case 2: A 20 year old female presented with c/o yellowish discoloration of eyes and bleeding gums, bilateral leg swelling. 3 weeks duration, started on native medication. O/e patient was unconscious, icteric, bilateral pedal edema +, Purpuric spots all over the body and ascites. Investigations revealed Hb-8.5, plt-158000, B.urea-202, S.creatinine-1.7, S.bilirubin-9.4, S.ALP-124, S.LDH-2426, Peripheral smear-dimorphic anaemia with poikilocytopenia, Direct Coombs test positive, ANA- positive, dsDNA- strongly positive. The final diagnosis was SLE with Evan’s Syndrome (Autoimmune Hemolytic Anemia) and was treated with steroids, hemodialysis and responded well to treatment.

Case 3: A 27 year female, known case of SLE1 year, presented with complaints of yellowish discoloration of eyes and urine, bleeding gums, bilateral leg swelling. Case 1 week, known case of SLE, 2 years, started on native medication. O/e patient was unconscious, icteric, bilateral pedal edema +, Purpuric spots all over the body and ascites. Investigations revealed Hb-8.5, plt-158000, B.urea-25, S.creatinine-0.9, S.bilirubin-10.9, S.ALP-298, S.AST-46, S.ESR- 45mm/hr, ANA and dsDNA positive, AMA-negative, P.TINK prolongation. This SLE patient developed drug induced liver injury with hepatic encephalopathy and succumbed to it.

Conclusion: This case series gives a picture about approach to jaundice in SLE, management and prevention.

Thyroid Function Abnormalities in Systemic Lupus Erythematosus
Rubhika A, RS Ahlawat, Sandeep Garg, Pramod Lali, Vineeta Batra
Maulana Azad Medical College, New Delhi

Introduction & Objectives: Multisystem involvement is a common entity in Systemic Lupus Erythematosus (SLE), a chronic autoimmune disease. Our aim was to study the occurrence of thyroid disorders in SLE. Our clinical observations suggest that thyroid function may be an under-recognized, but a common dysfunction in SLE.

Materials & Methods: Thirty-five patients, aged 18 years and above, fulfilling the ACR criteria for SLE, were enrolled in an observational cross-sectional study. Patients on drugs causing thyroid dysfunction, with chronic illness like malignancy, HIV and critically ill patients were excluded. After adequate history and examination, investigations to detect thyroid disorders and SLE were done. Symptoms suggestive of thyroid dysfunction were enquired from all patients using pre-designed proforma. Statistical analysis was done using SPSS 17 software. P value < 0.05 was considered statistically significant.

Results: Thyroid disorders were detected in 12 patients (34.3%). Six patients had subclinical hypothyroidism (17.1%), five had overt hypothyroidism (14.3%) and one patient had subclinical hyperthyroidism (2.9%). Seven patients (20%) had anti-TPO antibodies. Six out of 12 patients (50%) with thyroid dysfunction had positive antibodies, with a possibility of autoimmune thyroiditis. Serum TSH, FT3 and FT4 levels were statistically significant between the patients with and without anti-TPO antibodies, with anti-TPO antibodies. HTR and TSH were significantly higher in patients with anti-TPO antibodies. High anti dsDNA antibody titre was not associated with increased occurrence of thyroid disorder.

Conclusion: Occurrence of thyroid dysfunction in SLE is significantly higher than general population. Symptoms of thyroid dysfunction mimic those of SLE. Hence a lupus panel with non-specific suggestive symptoms, should undergo thyroid function testing and early treatment initiation to avoid morbidity.
Prevalence and Patterns of Peripheral Neuropathy in Patients of Rheumatoid Arthritis

Nidhi Kaeley, Ravi Kant, Minakshi Dhar, Sobah Ahmad

AIMS, Rishikesh, Uttarakhand

Background: Rheumatoid arthritis is an autoimmune disorder characterized by involvement of multiple joints and presents with severity and extra-articular manifestations in patients of rheumatoid arthritis with and without peripheral neuropathy.

Material and Methods: Consecutive patients of rheumatoid arthritis were recruited. Detailed clinical examination and electrophysiological tests were done to detect and characterize peripheral neuropathy and the clinical parameters were noted and tabulated. Student t-test was used to analyze continuous variable whereas chi-square test was used for analysis of categorical variables.

Results: Out of 89 patients of rheumatoid arthritis, 75.28% (n=67) patients had peripheral neuropathy electro physiologically whereas 20.89% (14 patients out of 67) patients had a pure motor neuropathy. Subclinical neuropathy was present in 50.74% (n=34) patients.

Conclusion: There was a statistically significant association between presence of neuropathy and age of the patients, disease duration, use of DMARD (Disease Modifying Anti-Rheumatic Drugs), disease severity (DAS28) and presence of subcutaneous nodules (p<0.05).

Case Report: Patients with rheumatoid arthritis especially, elderly patients should undergo electrophysiological testing in order to rule out peripheral neuropathy. Electrophysiological study is a diagnostic and gold standard tool to diagnose subclinical neuropathy in patients with rheumatoid arthritis. Early detection of peripheral neuropathy in these patients has been found to be significantly associated with deteriorating health status, poor scores as well as presence of extra-articular manifestations.

An Interesting Case of Intestinal Lymph Disease

Niyas A
KAP Viswanathan Government Medical College, Trichy, Tamil Nadu

Introduction and objectives: Primary Sjogren syndrome(PSS) is a chronic autoimmune inflammatory disorder manifesting with involvement of various internal organs including lung. Lung involvement could be the first sign of PSS. Clinically when one is confronted with predominant pulmonary symptoms as initial presentation, the objective is to ascertain the cause of such symptoms which could prove to be perplexing and challenging.

Materials and methods: 50 years old postmenopausal female who works as a domestic help with bad obstetric history presented with progressive nonproductive cough and a persistent dry throat. On examination she had bilateral end carinal caries, cold peripheries, bluish discolouration of fingers, Raynauds phenomenon, sicca symptoms and alopecia.

Results: CBC,urine routine,.RF,serum electrolytes were normal with negative viral markers and elevated ESR,CRP,SGOT and CPK.CXR revealed bilateral basal infiltrates and CT lungs showed ground glass opacities with sub pleural large globoid confluent opacities and dilated pulmonary artery. PFT shows restrictive pattern. ANA positive with coarse speckled nuclear pattern. Ro52
Nephrology

Mineral and Bone Disorder in Chronic Kidney Disease Patients on Dialysis in a Tertiary Care Hospital, Manipur
Kishalay Mahajan1, Guviler Potsangbam2

Introduction and Objective: Chronic kidney disease (CKD) is now recognized as a major public health issue. One of the important consequences of this condition is disturbance of mineral and bone homeostasis thereby causing mineral and bone disorder. The present study is to study the prevalence of mineral & bone disorder in chronic kidney disease disorder.

Materials and Methods: The study is a Prospective analysis undertaken over the period of last one year from June 2016 to June 2017. A detailed history & investigations like Kidney function test, serum calcium, phosphate, PTH, vitamin D, serum Hb, and serum Cr were done. Results: The threshold for suspecting Sjogren’s Syndrome should be document. The frequency of various biochemical abnormalities was hypocalcemia (25.4%), hyperphosphatemia (8.7%), hypomagnesemia (57.1%), raised alkaline phosphatase (60.3%), secondary hyperparathyroidism (80.94%), and hypoparathyroidism (2.5%). In the 14 patients with ESRD, Sjogren’s Syndrome was found in the present study high turn over.

Ischaemic Limb with Preserved Pulses – Two Clinical Scenarios
Teena Mary Varghese1, Abhilash Kannan2, Abhaya P3, C Jayakumar3

Introduction: There is a common misconception that ischemic limb necrosis results only from thrombosis or thromboembolism involving limb arteries, with loss of arterial pulsation. Ischemic limb gangrene can also result from thrombosis involving the microcirculation, including small venules. In such situations, arterial pulses are palpable and venous pulses and non-palpable signs are present.

Case Report: We present two cases here, representing both the entities described above, of microthrombosis – associated limb gangrene. The first patient was a 53-year-old male, a known case of Anti-phospholipid Syndrome, with chronic deep vein thrombosis of right lower limb admitted with gangrene of right big toe. He had palpable peripheral pulses and it was a transient DIC and shock liver and developed bilateral symmetrical gangrene of both lower limbs.

Discussion: This syndrome of microthrombosis – associated limb gangrene is a major distinct clinical presentations, one being the Venous Limb Gangrene complicating thromboembolic disorders that are strongly associated with deep vein thrombosis (e.g. Cancer, Associated DIC, Heparin induced Thrombocytopenia and Antiphospholipid Syndrome) and the other, a Symmetrical Peripheral Gangrene involving two and sometimes all four limbs, in limbs without deep vein thrombosis and usually associated with cardiogenic or septic shock.

Thus, we could witness both the clinical presentations of microthrombosis – associated limb gangrene. Also, we could also find only two reports so far in literature of venous limb gangrene in patients documented to have Antiphospholipid Syndrome.

Overlap Syndrome-Overlap of Systemic Sclerosis and Anti JO-1 Syndrome
Siddhartha Satapathy, M Mohanty, Behara, P Jena, Mohapatra, H Bhuyan, L Patnaik

Overview Syndrome is defined only as entity that satisfies the classification criteria for at least 2 connective tissue diseases. We report a case of overlap syndrome(see/31 syndrome). The heterogeneity and diversity of systemic sclerosis with anti JO 1 syndrome in a patient presenting as PUL at its incipient stage is challenging and rare. With this report we aim to discuss the clinical manifestations also of systemic sclerosis in an overlap syndrome with support from antibody profile and laboratory data and dramatic response to steroid.

Elevation of Intra Abdominal Pressure and its Contribution to AKI in ICU Patients of a Tertiary Care Centre in South India- A Cohort Study
Lakshmi Menon, Raghunath, Rethnak Narth, TP Antony

Introduction: Increasing incidence of intra-abdominal hypertension contributing to AKI in ICU.

Objective: To establish the relationship between IAP and incidence of AKI in Medical and Surgical ICU patients.

Materials and Method: Single cohort study involving 80 consecutive patients admitted in MICU and SICU during time period of Jan 2017 to June 2017 in our hospital. We have used the IAP as a proforma to collect data and SOFA scoring to assess the disease status of the patients who has given us informed consent. AKI was measured using Transducer technique at the time of admission, 24 hours, 48hours and at 72hours intervals. Mean IAP was calculated for further analysis. Data was entered in Microsoft excel sheets and was analysed with SPSS 23 software. Descriptive statistics was carried out. Significance was assessed at 5 % level.

Results: 80 patients were included, of which 24 had AKI. Mean age in patients with IAH was obtained as 63.08±12.374, with a male predominance. The IAP between 8-12mmHg showed significant incidence of AKI accounting to about 15 of 80patients and of which 10 had AKI. Less than 8mmHg -there were 41 patients of which 14 had AKI and 27 didn’t have AKI.IAH was found in 24 patients which was 30% of which 16 had AKI and 8 did not have. (Analysis with chi-square test revealed p=0.015)

Conclusion: Elevating levels of intra-abdominal pressure is associated with increased incidence of AKI than established Intra-abdominal hypertension.

Clinical Characteristic and Risk Factors of Acute Kidney Injury among Dengue Viral Infections: A Retrospective Analysis
ML Patel, D Hamsu, SC Chaudhary, Virendra Atam, Ravi Misra

Department of Medicine King George’s Medical University Lucknow, Uttar Pradesh

Introduction and Objective: Dengue is a growing public health problem in India and acute kidney injury (AKI) is one of the least described complications of dengue virus infection (DVI). This study was conducted to investigate incidence, clinical characteristic and risk factors of the acute kidney injury among dengue infections.

Materials and Methods: This was a retrospective study done by evaluation of medical records of DVI cases over a period of two years. A total of 620 subjects with confirmed dengue infection either as DHF or DHF/DS were enrolled in this study. Patients were divided into two cohorts (90 patients with AKI and 530 patients without AKI) in order to determine independent predictors of AKI.

Results: Among 620 subjects 454 (73.22) patients had classical DF, and 141 (22.74) patients with DHF and 25 (4.03) patients with DHF/DS were included. AKI was observed in 21% (87) patients, approximately one third (31.44%) of subject had AKIN stage 1AKI. AKIN stage 2 AKI was present in 33 (36.66%) patients and AKIN stage 3 AKI was present in 21 (24.07%) patients. Among those with AKI, fourteen patients died and all had DHF/DSS. In multivariate logistic regression models AKI development was associated with male gender (OR: 2.9), DHF (OR: 7.9), rhabdomyolysis (OR: 8.2), multiple organ dysfunction (OR: 18.2), hypertension (OR:0.7), diabetes mellitus (OR: 4.8), delayed diagnosis of DVI (OR: 2.2) and use of nephrotoxic drugs (OR: 2.86). 320 patients (51.61%) had length of hospital stay >3 days. We found that AKI was an independent predictor of increased length of hospital stay. (OD 7.2, 95% CI (4.8-10.7).

Conclusion: AKI in DVI is associated with significant morbidity, mortality, longer hospital stay and increase hospital care burden. The diagnosis and management of dengue virus infection with AKI must be cautious and on priority to decrease morbidity and mortality.

Study of Clinico-Pathological Correlation in Patients with Lupus Nephritis
Abhijith Magal, Vasudev Acharya
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Introduction & Objectives: Lupus nephritis requires a biopsy for staging, prognosticating and treatment and this study aimed at establishing a correlation between clinical manifestations, lab parameters and biopsy findings and to form a scoring system to predict the histological stage with
the help of simple lab tests and clinical data.

**Materials & Methods:** A cross-sectional study was done with 300 chronic kidney disease (CKD) patients, half of whom had lupus nephritis were recruited from the nephrology register of renal biopsies, informed consent of the patient was obtained. Then, a detailed history, clinical examination done, and the investigations including the renal biopsy result were noted. Statistical analysis was done to look for significant association between two different variables.

**Results:** The majority of those affected with LN were females (87.17%). Among the 39 patients studied, majority (37.38%) had LN. The serum creatinine was above class I (6%) and then class V (1.5%). ISN class IV was typically associated with clinical features like facial puffiness, pedal edema with 87% of class 4 patients showing some form of edema and high serologic activity in the form of active urinary sediment, strong ANA positivity and high anti-DNA titters along with heavy proteinuria with almost all patients of class 4 showing above features. However, creatinine and GFR, hypertension did not seem to be associated with only 3 patients in class 4 showing elevated creatinine and 3 having hypertension. Activity index also correlated well with the serology and proteinuria.

**Conclusions:** This study found meaningful correlation between lab data and the histology of lupus nephritis and correlated well with the serology and proteinuria.

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**Asymptomatic Left Ventricular Dysfunction in Patients of Chronic Kidney Disease**

**Sohan B, Shailendra D Mane**

**Dr. DY Patil Hospital and Research Institute, Kolhapur, Maharashtra**

**Introduction and Objectives:** CKD (Chronic kidney disease) is one of the most common health problem worldwide with increase in incidence and prevalence. Patients with CKD have a tremendous burden of cardiovascular disease and patients with ESRD are at the greatest risk for cardiovascular events and death. Cardiovascular Morbidity in CKD patient shae been poorly characterized. Our aim is to detect asymptomatic Left ventricular dysfunction in patients with stage three or more chronic kidney disease using 2D Echocardiographic estimation of Diastolic dysfunction in this study.

**Material and Methodology:** With the sample size of 100 patients, 46 patients of stage three or more CKD were enrolled up till now. These patients after ethical approval and consent were subjected to 2D ECHO during their visit to our hospital.

**Results:**

<table>
<thead>
<tr>
<th>2D Echoc Parameters</th>
<th>No. of patients</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diastolic Dysfunction</td>
<td>26</td>
</tr>
<tr>
<td>Systolic Dysfunction</td>
<td>4</td>
</tr>
<tr>
<td>RVMA</td>
<td>1</td>
</tr>
<tr>
<td>Pericardial effusion</td>
<td>3</td>
</tr>
<tr>
<td>Normal</td>
<td>12</td>
</tr>
<tr>
<td>Total</td>
<td>46</td>
</tr>
</tbody>
</table>

**Conclusions:** Asymptomatic Left ventricular dysfunction was noted in 56.32% patients which is a significant figure and it enlightens the clinicians whether to initiate cardiac remodelling drugs to all CKD patients in the future. This pilot study also will also provide a basis for further studies taken on a larger sample size to arrive at a firm.

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**A Case of Liddle Syndrome- A Rare Entity**

**Khan Abdul Mannan Sattar, T Anil Kumar, Sanjay V Kulkarni**

**Rajam Medical College, Medical College, Bareilly, Uttar Pradesh, India**

**Introduction:** Liddle’s syndrome is a rare monogenic form of hypertension with autosomal dominant transmission caused by truncating or missense mutations in the epithelial sodium channel (ENaC) resulting in a gain of function. ENaC mediates the entry of filtered Na from the tubule lumen at the apical membrane and the Na+–K+ ATPase reabsorbs the reabsorbed Na at the basolateral membrane. Liddle’s syndrome is caused by mutations in all three subunits (α, β, γ) and leads to increased Na transport. A combination of hypokalemia, elevated blood pressure and metabolic alkalosis are the usual presentations in patients with Liddle’s syndrome. Treatment approach aims toward inhibiting ENaC activity. Amiloride and triamterene directly block the ENaC and correct both the hypertension and hypokalemia.

**Conclusion:** Liddle’s syndrome should be considered as a differential in patients presenting with persistent hypokalemia with hypertension.

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**Correlation of Plasma Asymmetric Dimethylarginine (ADMA) and CIMT in Chronic Kidney Disease Patients**

**ML Patel†, R Sachan, Gaurav Prakash, SC Chaudhary, V Atam**

**Department of Medicine, King George’s Medical University, Lucknow, Uttar Pradesh, India**

**Introduction and Objective:** The incidence of cardiovascular disease in patients with chronic kidney disease (CKD) is significantly higher than that in the general population. Asymmetric dimethylarginine (ADMA) is considered to be an important predictor of atherosclerosis. Asymmetric dimethylarginine (ADMA) act as an endogenous nitric oxide synthase inhibitor. The aim of this study was to evaluate correlation of plasma ADMA with CIMT in CKD patients.

**Materials and Methods:** This cross-sectional study was carried out in the Department of Medicine, King George’s Medical University, Lucknow over a period of one year after informed written consent and approval from institutional ethics committee. Total 87 subject (control n=25) and 62 CKD cases as per KDIGO guidelines 2012, in to stage III(n=18), stage IV(n=20), stage V(n=24)) were evaluated. ADMA and CIMT were estimated in each group.

**Results:** Mean CIMT was in CKD stage III, 0.61±0.12 mm, stage IV, 0.67±0.10 mm, stage V, 0.88±0.06 mm, compared to controls 0.48±0.03 (p<0.001). Mean ADMA was in CKD stage III 17.32±2.43, stage IV 37.72±3.42, stage V 49.12±24.12, compared to controls 22.30±2.81 (p<0.001). ADMA was positively correlated with CIMT (r=0.798, p<0.001).

**Conclusion:** ADMA and CIMT increases parallel to each with disease severity. Circulating levels of ADMA in CKD patients were positively related to CIMT, which could be a predictor of early onset atherosclerotic disease in CKD patients.

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**Mean Platelet Volume (MPV) as a Prognostic Marker in Acute Kidney Injury**

**Nikhil P Patil**

**JM Medical College, Davangere, Karnataka, India**

**Introduction:** Mean platelet volume (MPV) is the most commonly used measure of platelet size, higher MPV value is well known as an independent risk factor for atherothrombotic events. Acute kidney injury (AKI) is a condition in which there is rapid decline (hours to days) in the glomerular filtration rate resulting in the retention of metabolic waste products and dysregulation of fluid, electrolyte, and acid-base homeostasis.

**Method and Result:** A total of 100 patients admitted with AKI diagnosed as per KDIGO guidelines were included in the study. 60 patients were collected in EDTA Vacutainers and analysed using BECKMAN COULTER Haematology Analyser LH 480. The results were analysed using SPSS (version 16.0). Receiver operating characteristic (ROC) curve was plotted for MPV vs Death showed that a mean MPV value >9.15 had a 80% sensitivity and 72% specificity in predicting the requirement for Dialysis. Similarly a value >9.45 had a 90% sensitivity and 68% specificity in predicting the requirement for Dialysis. An inverse correlation of MPV and Platelet Count was found in this study (p<0.015).

**Conclusion:** Higher values of Mean platelet volume may be used as a simple and an inexpensive test useful in predicting the requirement of Dialysis and mortality in patients with acute kidney injury.

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**A Comparative Study of Lipid Profile in Diabetic and Non Diabetic Patients of Chronic Kidney Disease - A Retrospective Study**

**Narayanaswamy M, Ravikumar U**

**Bangalore Medical College and Research Institute, Bangalore, Karnataka**

**Introduction and Objectives:** The study was done to find the comparison of presence of dyslipidemia and to know the alteration in different lipid protein fractions in chronic kidney disease. The objective of the study was to compare the alteration in lipid profile in diabetic and non diabetic patients with chronic kidney disease.

**Materials and Methods:** The study was conducted in the hospitals attached to Bangalore medical college and research institute and data was collected from November 2016 to July 2018. For diagnosis of CKD, history and clinical features with supportive biochemical and radiological evidence were taken as criteria.

**Results:** Study conducted on 50 (25 diabetic and 25 non diabetic) patients of chronic kidney disease, age distribution was between 20-82 years. 68.2% were in diabetics and 50.16% in non diabetics, sex ratio male: female is 64:36 in and 76:24 respectively. The prevalence of dyslipidemia in CKD was found to be about 85%. On comparing the two study groups, there was a significantly higher level of triglyceride cholesterol concentration and total cholesterol concentration.

**Conclusion:** The high prevalence of lipid abnormalities in CKD may accelerate the progression of the disease and increase the mortality of patients. Hence it is worthwhile to test and detect patients at high risk early on and manage accordingly.

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**Health Related Quality of Life and its Determinants in Patients with Chronic Kidney Disease on Hemodialysis**

**Rajat Bansal, Naresh Kumar, RS Ahlawat, S Anuradha**

**Maulana Azad Medical College, Delhi, India**

**Introduction and Objectives:** Health related quality of life (HRQOL) is an important concept in management of CKD patients that is highly correlated with mortality. The study aimed to assess the quality of life in patients undergoing hemodialysis and the effect of various factors on HRQOL of these patients.

**Materials and Methods:** A cross sectional study was conducted among 80 patients with CKD undergoing maintenance hemodialysis in a tertiary level hospital in Delhi. Patients who had completed at least three months of hemodialysis and aged 18 years and above were enrolled. HRQOL was assessed using Kidney Disease Quality of Life-36 (KDQOL-36), depression using Patient Health Questionnaire-9 (PHQ-9) and social support using Multidimensional Scale of Perceived Social Support (MSPSS).

**Results:** The mean age of the study population was 43.05±11.89 years and 58.8% were males. 70% patients were on HD thrice weekly. The mean physical component summary score (PCS) was 33.94±8.2, mental component summary score (MCS) was 40.06±8.48, symtoms/problems list was 10.05±5.80, effects of disease score was 12.05±6.96, burden of kidney disease was 26.17±22.13 and kidney disease component summary score (KDCCS) was 48.0±15.31. Higher income was associated with better PCS (P=0.014). Higher income was associated with better MCS (P<0.003) and KDCCS (P<0.015). Employed patients had better MCS and KDCCS (P<0.003). Homocystin and albumin levels had positive correlation with all scores (P<0.05). Higher social support (P<0.01) and less depression (P<0.001) were associated with better scores in all domains. On multivariate analysis, factors associated with poorer HRQOL were determined for each subscale: age ≥60 years...
Introduction & Objectives: Pleural effusion in chronic kidney disease (CKD) patients is a common diagnostic dilemma as it may arise due to many causes, including fluid overload, hypoalbuminemia due to nephrotic syndrome, uraemic pleurisy or concomitant infections. The present study was aimed to determine the etiological profile of pleural effusion in CKD patients.

Materials and Methods: We prospectively studied 44 exudative pleural effusions in patients with CKD stage 3-5, over a period of 1 year at our centre. The patients with transudative pleural effusions were not included. Data including clinical examination, investigations, echocardiography were recorded. Pleural fluid aspiration was done in symptomatic patients after ruling out cardiac failure as the cause of the pleural effusion, and sent for standard biochemical, microbiological and cytological investigations, with additional tests being performed where necessary.

Results: Out of 44 patients, 34 (77.3%) were males, the mean age was 53.9 ± 11.52. Thirty-five (57%) had unilateral effusion and 9 (43%) had bilateral effusions. Majority of the pleural effusions were stage-5 CKD patients (n=35; 79.5%) of whom 29 (82.9%) were on haemodialysis. Breathlessness was the most common symptom seen in 32 (72.7%) followed by cough 19 (43.2%), fever 34 (71.8%) and chest pain 7 (15.9%). The etiology of pleural effusion was non-specific / could not be found in 26/44 (59.1%) but most undiagnosed cases resolved with more frequent dialysis and a short course of antibiotics. Specific causes included Malignancy (n=1; 2.8%) Tuberculosis (n=4; 9.1%), frank empyema (n=4; 9.1%), para-pleural effusion (n=5; 11.4%) and uraemic pleurisy (n=6; 6.8%).

Conclusions: Exudative pleural effusions are not uncommon in CKD patients. A large number of cases may remain undiagnosed. We were able to correlate attacks of IDH with CKD patients and found that measurement of inferior vena cava (IVC) collapsibility is a parameter which is associated with intradialytic hypotension (IDH).

A Study of the Etiological Profile of Exudative Pleural Effusion in Chronic Kidney Disease at a Tertiary Care Centre

Kautuk Lohia1, Shiv Prasad Paul1, Johny Joseph1, Ranganath Bhat2, Murali Mohan B V1, Madhavi Kadambi3, RMBR Ravi Chandran3, Ranjith J1, Nidhim Mohan4, Mahesh Kumar5

Departments of General Medicine, Pulmonology and Internal Medicine, Mazumdar Shaw Medical Center, Narayana Health City, Bangalore, Karnataka

Objectives:
- To study the occurrence and spectrum of acute kidney injury in patients on haemodialysis.
- To identify factors associated with mortality in chronic dialysis patients on haemodialysis.
- To study the incidence and spectrum of acute kidney injury in patients on haemodialysis.

Methods:
- A case-control study was conducted in the medicine department of Rajendra institute of Medical Sciences.
- We prospectively studied 70 patients of chronic kidney disease undergoing haemodialysis over an 18 month period.
- The case control study showed that underweight and hypoalbuminemia have a statistically significant relationship with the factors associated with mortality on haemodialysis patients.

The Relationship between Hypoalbuminemia and Intradialytic Hypotension in Haemodialysis Patients

Prajit Mazumdar, JK Mitra, Vidypati, Divakar Kumar

Rajendra Institute of Medical Sciences, Ranchi, Jharkhand

Intradialytic hypotension (IDH) is a common complication during HD session.

Materials and Methods:
- We conducted a cross-sectional study in 70 patients who were on routine haemodialysis and 70 patients on chronic kidney disease undergoing haemodialysis as controls. The with advanced cancer, AIDS, liver cirrhosis were excluded. The clinical records were reviewed to consider demographic data, comorbidities, various clinical and laboratory variables.

Findings:
- In this study, we study 70 deceased patients of chronic kidney disease for any cause and 70 patients of chronic kidney disease undergoing haemodialysis as controls. No statistically significant differences were found in both group as regard to underweight (odds ratio [OR], 2.64; 95% Confidence Interval [CI], 1.04 to 6.70) and to hypoalbuminemia (OR, 3.0; 95% CI, 1.21 to 7.43). Traditional risk factors did not show any association.

Conclusion:
- The case control study showed that underweight and hypoalbuminemia in haemodialysis patients have a statistically significant relationship with mortality. The factors associated with mortality on haemodialysis patients.

Clinical Profile of Acute Kidney Injury in Acute Febrile Illness with Thrombocytopenia

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Introduction:
- Acute febrile illness is defined as an acute febrile syndrome with oral temperature over 37.5 degree Celsius within last 24 hours and less than 2 weeks of duration with non-specific symptoms that will not help us to localize to a particular system.

Materials and Methods:
- Exclusion Criteria

Inclusion Criteria:
- Patients above 18 years of age having acute febrile illness with platelet count less than 1.5 lakhs/cumm with acute kidney injury due to Dengue, Malaria, Leptospirosis infection, Rickettsial fever, Typhoid and Chikungunya infections.

Sample size:
- The acute kidney injury in case of tropical infections is mainly due to prerenal and intrarenal causes.

Aims and Objectives:
- The aim & objective of this study is to Study the Incidence and Spectrum of acute kidney injury in acute febrile illness with Thrombocytopenia.

Study Area:
- Data for the study will be collected from the patients admitted in Department of General Medicine at SSIMS & RC hospital from admission to discharge.

Study Design:
- Observational cross sectional study of admitted patients who meet the inclusion and exclusion criteria in SSIMS & RC hospital from admission to discharge.

Study Duration:
- As per the recent KDIGO AKI Guidelines - AKI is defined as any of the following:
  - Increase in SCr by ≥0.3 mg/dl (≥26.5 μmol/l) within 48 hours;
  - Increase in SCr to ≤1.5 times baseline, which is known or presumed to have occurred within the prior 7 days;
  - Urine volume ≤0.5 ml/kg/h for 6 hours.

Exclusion Criteria
- Patients below 18 years.
- Pregnant women.
- Snake bite.
- Bacterial sepsis – Clinical and Radiological features suggestive of pyelonephritis, pneumonia, meningitis, gastroenteritis, acute viral hepatitis & intra abdominal abscesses.
- Immuno compromised.
- Inherited thrombocytopenia, chronic liver disease.

Methodology:
- A total number of hospitalized Patients of Acute febrile illness with Thrombocytopenia is studied for 18 months period.
- Increase and HDL decrease in group-3 compared to group-2 was found statistically significant (p-value for each ≤0.05) and no significant variation in TC and LDL in these groups.

Conclusion:
- This study demonstrated that there is dyslipidemia in CKD patients irrespective of mode of management but the derangement is much more common and significant in CKD with haemodialysis group and they are at risk of cardiovascular disease. It is better to start lipid lowering drugs which decreases disease progression and dyslipidemia.
Among other acute febrile illness with thrombocytopenia, majority of cases had stage I acute kidney injury and recovery was complete at discharge without requiring RRT in the course of treatment.

We calculated the eGFR at discharge as the prognostic marker of acute kidney injury leading to chronic kidney disease in future.

We used the discharge creatinine to calculate the eGFR. The management of acute febrile illness with thrombocytopenia cases was followed up till discharge from admission.

About 98 cases were managed conservatively with fluid correction and rest 2 cases were in need of renal replacement therapy and were given.

Among those of conservative management all were recovered in partially-14 (eGFR 15-60/mL/min) and completely- 84 (eGFR >60/mL/min) and among renal replacement therapy cases, one recovered after 3 sitting of RRT.

Dengue fever and another case died after 1 sitting RRT of ceftriaxone.

Conclusion: Most of the cases had stage I acute kidney injury and recovered completely at discharge.

Dengue fever is the most common cases in this study & most patients had only stage 1 AKI.

Rickettsial fever was the only acute febrile illness with thrombocytopenia in this study with majority of stage II acute kidney injury and one patient required RRT where as another one died.

Intra-Dialytic Complications in Hemodialysis Patients

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Objective: To determine frequencies of various acute complications in patients undergoing hemodialysis.

Study Design: Descriptive cross-sectional study.

Place and Duration of Study: Department of Nephrology, Meenakshi Medical College and Research Institute (MMCH), Kancheepuram from Oct-2017 till Nov-2017

Material and Methods: A total of 50 patients who underwent haemodialysis at MMCH were enrolled in the study after informed consent on justification of inclusion and exclusion criteria. The patients were evaluated for the frequency of various intra-dialytic complications and data were analysed using Microsoft Excel and SPSS version 19.

Results: Out of the 50 enrolled patients, males were 35 (70%) and females were 15 (30%). A total of 335 dialysis sessions, followed by fever in 54 (16.11%) and hypertension in 47 (14.03%) sessions. Other complications were nausea in 32 (9.85%), muscle cramps in 23 (6.87%), headache in 19 (5.67%), itching in 17 (5.07%), hypoglycaemia in 16 (4.78%), vomiting in 14 (4.31%), chest pain in 13 (3.88%), seizure in 1 (0.29%), dyslequilibrium syndrome in 1 (0.29%), and arrhythmias in 2 (0.59%) dialysis sessions.

Conclusion: Complications are quite common during dialysis and some of the most frequent ones aren’t life threatening and can be avoided with better systems in place for early detection. And many minor complications can be managed at an early stage with regular and persistent monitoring of the patient during dialysis. Also proper steps should be taken to clean the vascular access area and to strictly maintain microbe free surroundings. Even awareness among the patients about the complications and possible self-care may decrease their occurrences.

Evaluation of Etiology of Acute Kidney Injury in ICU in a Tertiary Care Centre and Prognostication Using ICU Scoring Systems

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Introduction & Objectives: Acute kidney injury (AKI) is a serious complication in ICU patients, associated with high mortality. This study aimed to evaluate the etiology of AKI in critically ill patients, to compare the outcome predicting ability of SOFA, RIFLE and APACHE III scores and to evaluate the role of AKI as an independent predictor of mortality in ICU.

Materials & Methods: This is a prospective study on 218 adult patients with AKI (KDIGO 2012) admitted to the medical ICU of a tertiary care centre over period of 1 year. Data was recorded on the first day of ICU admission and all relevant diagnostic investigations including those for Metabolic Bone Disease were done. 2D Echo was performed and analysed by a single experienced cardiologist to look for valve calcification as per “American Society of Echocardiography” guidelines. Collected data was statistically analysed using IBM SPSS version 21.

Results: Mean age of study population was 56.03 years, with a male preponderance of 79.7%. Mean duration of KD was 44.64 months and duration of HD was 20.69 months. Mean Serum Ca level was 8.88ng/ml, PO4 – 4.45mg/dL, PTH -152.35, Vitamin D level-23.18. The percentage of subjects who were taking calcium tablets was 48.4% and those consuming sevelamer was 53.11%. Prevalence of Aortic Valve Replacement was 29.7% and that of Mitral Valve 23.4%. 14.1% of subjects had both valvular involvement.

The mean age was 15.35 years higher in subjects with AVC compared to subjects without AVC which was statistically significant. The mean Ca, PO4 product was 8.35 units higher in subjects with AVC and 3.95 units in MVC which was statistically significant.

Conclusion: The prevalence of AVC was 29.7% and MVC was 23.4% in chronic kidney disease patients on HD. Mitral and aortic valve calcification showed significant association with high Serum Calcium, Calcium Phosphorous product while age was a significant factor associated with AVC.

Study of Prevalence of Aortic and Mitral Valve Calcification in Maintenance Haemodialysis Patients

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Objective: To study the prevalence of Aortic and Mitral Valve calcification (AVC and MVC) in Chronic Kidney Disease patients on maintenance HD and correlate with biochemical parameters.

Material & Methods: This was a cross sectional, observational study of one year duration from March 2015 to June 2016 on 64 patients undergoing HD in the Department of Nephrology, approved by Hospital Ethics Committee. Informed consent was taken from subjects fulfilling inclusion criteria and detailed clinical evaluation, blood investigations including the etiology of Metabolic Bone Disease was done. 2D Echo was performed and analysed by a single experienced cardiologist to look for valve calcification as per “American Society of Echocardiography” guidelines. Collected data was statistically analysed using IBM SPSS version 21.

Results: Mean age of study population was 56.03 years, with a male preponderance of 79.7%. Mean duration of KD was 44.64 months and duration of HD was 20.69 months. Mean Serum Ca level was 8.88ng/ml, PO4 – 4.45mg/dL, PTH -152.35, Vitamin D level-23.18. The percentage of subjects who were taking calcium tablets was 48.4% and those consuming sevelamer was 53.11%. Prevalence of Aortic Valve Replacement was 29.7% and that of Mitral Valve 23.4%. 14.1% of subjects had both valvular involvement.

The mean age was 15.35 years higher in subjects with AVC compared to subjects without AVC which was statistically significant. The mean Ca, PO4 product was 8.35 units higher in subjects with AVC and 3.95 units in MVC which was statistically significant.

Conclusion: The prevalence of AVC was 29.7% and MVC was 23.4% in chronic kidney disease patients on HD. Mitral and aortic valve calcification showed significant association with high Serum Calcium, Calcium Phosphorous product while age was a significant factor associated with AVC.
A Rare Case of Anti-GM1 Negative Goodpasture Disease Presenting with Dilated Cardiomyopathy and Perforating Dermatoses
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Goodpasture Syndrome with a rare incidence of one in 60000 accounts for 20% of RPGN cases. It occurs due to antibodies against the NC1 domain of the alpha3 chain of type IV collagen. It usually presents with glomerulonephritis, pulmonary hemorrhage. But 35% may present with glomerulonephritis alone. Circulating anti-GM1 antibodies may not be present always.

Here we present a 24-year-old female from our hospital with complaints of 30 days fever, 2 days of erythematous Skin lesions, 7 days of cola colored frothy urine, 3 days of anaemia or oliguria, 3 days of headache and diaphoresis & cough. Chest X-ray revealed Pneumonic vascular congestion.

Yet no history of pulmonary hemorrhage. ABG revealed Type 1 respiratory failure. ST-T changes in ECG & Dilated left Atrium and ventricle with severe Global Hypokinesia & EF 44% in Echocardiography.


Cardiomyopathy & RPGN prompted us to start Pulse methylprednisolone. Hemodialysis was also initiated, which improved dyspnea & anaemia. ANA dsDNA ANCA MPO PR3 antiGM1 came negative repeatedly. Renal biopsy revealed NICKROTING CRESCENTIC GLOMERULONEPHRITIS WITH LINEAR Ig-G Staining consistent with Goodpasture Syndrome.

The patient underwent 9 rounds of Plasmapheresis and 6 rounds of Exchange transfusion on monthly basis cyclophosphamide immunosuppression (UVAS: CYCLOS protocol) and Oral Prednisolone regimen. ESR was successfully reverted. Erythematous Skin lesions Biopsy confirmed perforating dermatoses.

Discussion: Possibly cardiomyopathy could have resulted from oliguria due to RPGN in this case

Conclusion: To our knowledge, this is a unique and rare case of Goodpasture Syndrome with anti-GM1 negative Renal involvement only Goodpasture disease along with perforating dermatoses.

HIV

Culprits in the Immunosuppressed
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Introduction & Objectives: Human Immunodeficiency viruses is the initial causative agent in AIDS, but most of the morbidity and mortality in AIDS cases result from opportunistic infections. Common opportunistic infections (OIs) include tuberculosis, candidiasis, herpes viruses, cytomegalovirus and others like cryptosporidiosis, toxoplasmosis, HHV 6 and 7. The present study is to find the prevalence of these opportunistic infections in newly admitted patients.

Materials & Methods: The study was done among patients with HIV admitted in medical ward and ICU with complaints of fever, cough, loss of appetite, and rapidly growing disease in developing countries. HIV/AIDS treatment delays the progression towards AIDS.

A Study of Neurological Disorders in HIV Patients in Tertiary Care Centre
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Introduction and Objectives: The varied spectrum of HIV associated neuro-disorders have emerged despite HAART era. This study was undertaken to assess the trend of non-opportunistic and opportunistic disorders, correlate with CD4 and assess the effect of ART on mortality.

Materials and Methods: A cross sectional observational study of subjects >13 years with diagnosed HIV (either naive or known) with neuro-manifestations or other complaints with subcortical-slow to subtle high-cortical cognitive defects requiring neuropsychological testing emphasise the fact that neuro-disorders should be differentials despite neurological paucity.

Results: 219 patients of which 100 (45.66%) had neurological manifestation, 83 were neuro-sympomatic, 17% admitted for some other medical illness with subsequent neuro-deficit. Out of 82 known HIV patients, 9 patients had CD4 count <200. Alteration in RFT and LFT did not have significant correlation with severity of disease.

Conclusions: Out of total 43 patients with a diagnosis of HIV, 83% were neuro-sympomatic, 17% admitted for some other medical illness with subsequent neuro-deficit. Out of 82 known HIV patients, 9 patients had CD4 count <200. Alteration in RFT and LFT did not have significant correlation with severity of disease.

Impact of Tenofovir based regimen on CD4 count in ART naive patients and comparison with Zidovudine based regimen
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Methods: Niney ART naive patients according to predefined criteria were recruited in two groups (ZLN & TLE) and were subjected to baseline investigations with CD4 count and KFTs as per NACO guidelines. TLE group subjects were followed-up prospectively for six months with CD4 count & serum creatinine done at baseline and after six months, while data pertaining to ART naive patients were extracted from the available records and both groups were compared.

Results: Our study done in ART naive patients taking ZLN & TLE regime, mean age was 34.7 (±11.3) and 33.1 (±9.8) respectively and both were comparable. Mean Hb in TLE and ZLN were comparable [11.8 ± 2.23] and [11.3 ± 2.23]. Our study result is statistically significant mean in CD4 count [r=0.72] as well as mean serum creatinine change [r=0.078] after six months of therapy with TLE regime. through the study CD4 count change was higher with ZLN (l<0.143) as compared to TLE (l=0.129) after six months of therapy, it was statistically insignificant.

Conclusion: TLE regime justifies the merit of Tenofovir based regime under the umbrella of ART in NACO. However, its use is suggested with caution in subjects with high risk for renal failure, as evident even over short follow-up of six months. Statistically significant difference was found in CD4 count on ZLN regime in comparison to TLE, increases its validity to use in subjects where Tenofovir is contraindicated.

Cerebral Toxoplasmosis as Presentation of AIDS
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Introduction: Toxoplastic encephalopathy is the most common and treatable AIDS neuro-pathy in patients with AIDS. However, it is uncommon to encounter toxoplastic encephalopathy as initial presentation of AIDS in the era of ART. We present a case of toxoplastic encephalopathy in a patient with AIDS.

Materials and Methods: An apparently healthy 24 year old male with no known comorbidities presented to the ER with complaints of fever, low grade intermittent since 10 days, right sided hemiparesis and progressive deterioration of sensorium and memory disturbance since 2 days. The patient was not an IV drug user and had no HEO blood transfusion history. Examination was normal. There was no lymphadenopathy. His preliminary lab results are as follows : Haemoglobin:12.12, TLC: 6200, Neutrophils:51, lymphocytes: 19, eosinophils: 25, platelets: 60,000. Peripherical smear revealed mild thrombocytopenia with eosinophilia, no haemoparasites. His serology for dengue was negative. All other biochemical parameters were within normal limits.

The patient developed one episode of GCTS on day 2 and was admitted for monitoring. Yet no history of pulmonary hemorrhage. ABG revealed Type 1 respiratory failure. ST-T changes in ECG & Dilated left Atrium and ventricle with severe Global Hypokinesia & EF 44% in Echocardiography. In view of high clinical suspicion of toxoplasmosis, serum IgG and IgM for toxoplasma were sent which revealed elevated IgG titers of 650 IU/ml (normal: <1 IU/ml) and normal IgM titer.

Subsequently, patient was found to be HIV-1 positive by CLIA which was confirmed with western blot with a CD4 count of 43.

Conclusion: Our objective is to study of haematological and biochemical manifestation in HIV/AIDS and to Assess their Correlation to Severity of Disease
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Introduction and Objectives: One of the commonest and rapidly growing disease in developing countries, HIV/AIDS. The disease has no cure and despite antiretroviral therapy (ART) for years, the number of AIDS cases has shown no decrease. One of the most common complications leading to notable abnormalities in haematological and biochemical parameters.

Our objective is to study of haematological and biochemical manifestation in HIV/AIDS and their correlation to severity of disease.

Materials and Methods: The blood samples of 100 patients whose age more than 18 years, diagnosed HIV 1 and HIV 2 by ELISA method (both symptomatic and asymptomatic) were present in OPD or admitted to Bapuji Hospital and Chikmagalur Medical College. Patient with previously known haematological disorder and biochemical abnormalities prior to HIV infection and patients with the history of blood transfusion and dengue related to other causes are excluded.

Results: In our study 100 patient were studies among them all affected were females (55%) and 31-40 years age group was dominant. Hb, TLC and Eosinophil observed were pallor, generalized lymphadenopathy, oral candidiasis and icterus in increasing order respectively. The common blood picture observed in our study was normocytic hypochromic, leucopenia was noted higher than thrombocytopenia and severity of disease was highest when the CD4<200. Alteration in RFT and LFT did not have significant correlation with severity of disease.
**Hematological Manifestations in HIV Infection**
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**Introduction and objectives:** HIV infection is associated with a wide range of hematological abnormalities, which are amongst its most common complications. This study is conducted to evaluate the hematological abnormalities associated with HIV infection and to correlate them with CD4 cell count.

**Materials & Methods:** An observational cross-sectional study was conducted from March 2017 till August 2018 after institutional review board approval with written informed patients’ consent. 109 patients in 15-60 age group who were HIV positive by the NACO guidelines were included. Complete hemogram, serum iron studies, serum folate and vitamin B12 levels, and flowcytometric CD19, CD20 cell count analysis were done for all the patients. Various hematological parameters were compared between the patients with CD4 cell counts >200/µl (n=52) to those with counts <200/µl (n=57). By using student t-test, the p-value was calculated for various parameters.

**Results:** Anemia (58.7%), leucopenia (27.5%) and thrombocytopenia (17.4%) were seen with anemia being the most common abnormality. Normocytic normochromic anemia (65.6%) was the predominant type of anemia. Overall analysis showed a statistically significant difference between two groups in hemoglobin concentration, RBC indices, serum ferritin values and absolute lymphocyte count with p-value <0.05.

**Conclusion:** The diagnosis and treatment of hematological disorders are essential in medical care of the HIV-infected patients. Although in majority of the cases these are detected in limited setups, where no bone density analysis is possible, hematological abnormalities can be used as tools for monitoring HIV positive individuals.

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**Immunology**

**An Uncommon Presentation of a Common Disease—Systemic Lupus Erythematosus**
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**Introduction:** Systemic Lupus Erythematosus is a common Autoimmune disorder, disease process mediated by Autoantibodies and Immune Complexes. Here we discuss the presentation of a patient with SLE and axonal polyradiculoneuropathy; where the diagnosis of SLE was made simultaneous to diagnosing the (Vasculitic) neuropathy.

**Methods and Materials:** A 48-year old female, known case of hypertension, diabetes presented with bilateral knee pain for the past six months, lower limb weakness and loss of sensation over palms and soles since 1 week. She also had constipation-1 week followed by bowel incontinence and bloating P/R.

On examination she was pale, thinly built, poorly nourished.

CNS Examination revealed—Essential tremor of the hands, left hand hypnotheral muscle wasting (h/o trauma, surgical fixation done)
A Rare Complication of Enteric Fever–HLH

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Introduction & Objectives: Hemophagocytic Lymphohistiocytosis (HLH) is a rare disorder characterized by fever, hepatosplenomegaly, cytopenias. There are two forms of HLH: primary and secondary. Secondary HLH is a well-recognized entity associated with infections, autoimmunity diseases, drugs or malignancies.

Materials & Methods: 24 yrs old male presented with 2 weeks of H/O fever with multiple joint pain and breathlessness associated with loss of weight. Patient was febrile, dyspneic-NYHA II, had Gr II clubbing, splenomegaly, and palmar erythema. Hypotension was noted with S.TypH growth in blood culture. ANA,A RF,CRP were negative. Pulmonary smear showed marked decrease in lymphocytes with blast transformation, decrease in RBC and platelets. Echo-large ASD with left to right shunt. Bone marrow biopsy showed hypercellular marrow. Increase in M:E ratio with >30% myeloblast, decreased megakaryocytes, micro-normoblasts – suggestive of AML M2 variant along with HEMOPHAGOCYTES. Sr ferritin,TiCL were elevated grossly.

Results: Diagnosed as secondary HLH. Treated for salmoella. Started on induction phase for AML along with steroids.

Conclusion: A case of M2 variant AML in a patient with ASD superimposed by enteric fever which triggers hemophagocytic leading to secondary HLH.

Prevalence of Thyroid Dysfunction in Patients with Systemic Lupus Erythematosus: A Descriptive Cross Sectional Study

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Introduction: Population-based epidemiological data to estimate the prevalence of thyroid dysfunction in SLE patients from Indian settings is lacking. The present study evaluated the prevalence of thyroid dysfunction and anti-TPO antibodies in SLE patients, and the most prominent clinical features of thyroid dysfunction in SLE patients.

Methodology: The descriptive, cross-sectional study involved 100 adult patients diagnosed with SLE between August 2012 and January 2014 at a tertiary hospital, based in India. The study excluded patients on medications that could induce thyroid dysfunction. Demographic information of those with a history of thyroidectomy, major organ damage or malignancy.

Results: Among the 100 recruited subjects, ninety-nine patients were females, and the most of the patients (47%) belonged to the age group of 20-30 years. Median duration of SLE was 24 months. The prevalence of thyroid dysfunction observed was 50% and hypothyroidism was the commonest thyroid abnormality noted. None of the subjects had hyperthyroidism. Among the patients with thyroid dysfunction, the corresponding number of patients with clinical hyperthyroidism and subclinical hyperthyroidism and elevated anti-TPO alone were 60% (n=30), 24% (n=12), and 16% (n=8). Out of 25 patients with elevated anti-TPO, 48% (n=12) had clinical hypothyroidism, 20% (n=5) had subclinical hypothyroidism, and 32% (n=8) had normal TSH and FT4. Most of the patients with thyroid dysfunction were newly diagnosed. All the significant symptoms noted were fatigue (75%), hair loss (75%) and joint pain (65%).

Conclusions: The prevalence of thyroid dysfunction was found to be higher in SLE patients than in common population. The study has also noted elevated levels of anti-TPO in these subjects.

Pulmonary

New Onset Gynecomastia in Elderly Smoker as a Beacon of Lung Cancer

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Introduction: Gynecomastia has a trimodal age distribution that includes neonatal, pubertal and elderly males. It is usually asymptomatic & bilateral when seen in elderly, attributed to hormonal imbalance. Other common causes are neoplasms, liver/kidney failure and tumours. Unilateral gynecomastia as a presenting feature of non-small cell lung cancer is reported only once in literature, hence this case.

Case Report: 66 year old male, chronic smoker and hypertensive, presented with painful lesion over left side of chest of 2 months duration. Associated fatigueness, abdominal pain and constipation were present. Examination confirmed left sided gynaecomastia. Abdomen and Testes were normal. Blood reports showed hypercalcaemia and chest X-ray revealed lesion in left cardio-pulmonary angle, which was later confirmed as squamous cell carcinoma on biopsy.

Discussion: In absence of evident testicular lesion, new onset gynecomastia in elderly should raise suspicion of an underlying malignancy elsewhere. Subtle chest xray signs should be evaluated and possibility of lung cancer must be ruled out in chronic smokers before moving with further investigations. It assumes importance that it’s an easily demonstrable physical sign compared to hypercalcaemia which is a lab finding.

Conclusion: New onset gynecomastia in elderly chronic smoker, may be the first symptom and visible sign of underlying neoplastic lung disease. This, is the second reported case of unilateral gynecomastia with non-small cell lung carcinoma in literature.

A Study on Sputum Smear Conversion Rate, Tolerability, Adverse Drug Reactions of Bedaquiline in Patients with Drug Resistant Tuberculosis

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Introduction: Bedaquiline, an ATP Synthase inhibitor, has recently been introduced to India for treatment of Drug resistant TB. However, there is scarcity of information about the adverse effects of Bedaquiline on Indian population.

• To evaluate sputum conversion rate in patient on bedaquiline regimen for DR resistant tuberculosis.
• To evaluate adverse drug reactions of bedaquiline.
• To evaluate tolerability of bedaquiline.

Materials and Methods: This was a descriptive, record-based, observational study, based on the Randomized data of the DB-TB patients treated with Bedaquiline in Burdwan Medical College and Hospital. We assessed all patients of sputum smear conversion, tolerability and changes in the relevant laboratory parameters along with ECG recordings for QTcF prolongation and other significant changes.

Result: Data obtained from first 90days of Bedaquiline therapy were recorded and analyzed (N=30). Sputum conversion is (56%) in first month. Mean QTcF increased markedly (522.72±12.98307 ms) from the baseline (383.4±12.91003 ms) with mean increase of 38.17%. Tachycardia (in 30%) was another common ECG finding. Nausea (32%), diarrhoea (30%), headache (10%), joint pain (12%) and anaemia (30%) were some commonly reported symptoms.

Conclusions: Bedaquiline is effective and tolerated. Bedaquiline is associated with several non-serious adverse events. Serious ECG findings as QTcF prolongation and tachycardia were observed, though they did not cause any patient harm. However, close monitoring on more patients is required to comment on risks associated with these phenomena.

Pharmacoinformatics

Study of Neutrophil Lymphocyte Ratio and Platelet Lymphocyte Ratio in COPD Exacerbations as a Prognostic Indicator at a Tertiary Center

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Introduction and Objectives: Platelet to lymphocyte ratio (PLR) and Neutrophil Lymphocyte Ratio (NLR) are markers of inflammation and have been reported to be elevated in patients of Acute exacerbations of COPD (AECOPD). The aim of this study was to determine the association between these parameters to the severity and outcome of AECOPD.

Materials and methods: We conducted a retrospective study of patients admitted with a diagnosis of AECOPD between September 2016 and September 2018. Clinical characteristics, NLR, PLR and ARB on admission were recorded.

Results: A total of 50 patients (24 Male, average age 64 years) were included in the study. The mean level of NLR and PLR were respectively 11.25 and 207. NLR was significantly associated with CO2 retention (p=0.0081) and arterial oxygen saturation (p=0.001). NLR and PLR were also associated to longer duration of hospital stay (p=0.02).

Conclusion: NLR and PLR can be used as prognostic markers in AECOPD.

Comparing Diagnostic Accuracy of Gene Xpert and Sputum AFB in HIV Patients Suspected for Tuberculosis

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Introduction: Mycobacterium tuberculosis is the number one killer infectious disease worldwide. TB is the most common cause of death in HIV-positive individuals. Accurate identification and prompt treatment is a priority. Culture remains the gold standard for diagnosis but has a long turnover. HIV infected people have higher rates of smear-negative disease. GeneXpert, an automated...
bronchoscopy can provide useful tool for diagnosis of AFB Culture by LJ medium – 8/30 (26.66%), bronchial brush treatment Pulmonary Tuberculosis was made by bronchial research institute and data was collected from November detection and treatment of tuberculosis. Proportion of smear-negative patients, thus helping in early microscopy and established diagnosis in a significant test for TB in HIV positive patients. It outperformed smear sensitivity and NPV were significantly higher. Specificity, NPV and PPV for acid fast smear were 43.35%, 100%, 16.06%, 100%. GeneXpert in smear negative cases had a sensitivity, specificity, NPV and PPV of 77.39%, 95.45%, 44.68%, 98.89%. The sensitivity and NPV were significantly higher.

Conclusion: GeneXpert is an accurate rapid rule-in test for TB in HIV positive patients. It outperformed smear microscopy in diagnosis in a significant proportion of smear-negative patients, thus helping in early detection and treatment of tuberculosis.

Diagnostic yield from flexible fiber optic bronchoscopy in sputum smear negative pulmonary tuberculosis

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Introduction and objectives: Bronchoscopy is useful in diagnosis of sputum smear positive and negative smear tuberculosis. Our aim is to find the diagnostic yield of fiberoptic bronchoscopy in sputum smear negative under RNTCP and radiologically suspected new cases of pulmonary tuberculosis and complications of fiber optic bronchoscopy. Role of fiber optic bronchoscopy in early diagnosis of tuberculous patients and to confirm other diseases.

Materials and Methods: This is prospective study. It was conducted on 30, clinically and radiologically suspected sputum smear –negative Pulmonary Tuberculosis patients attending Ambedkar medical college and hospital. Fibreoptic bronchoscopy was performed. Bronchial wash and brushing was performed and malignant cytology and Bronchial wash for AFB culture by LJ medium. Cytology of bronchial aspirate and bronchial brushing, and histopathological examination of bronchial biopsy.

Results: Final diagnosis of sputum smear –negative treatment Pulmonary Tuberculosis was made by bronchial wash AFB smear positive – 14/30 (46.7%), bronchial wash AFB Culture by LJ medium – 8/30 (26.66%) bronchial brush for AFB smear positive –6/30 (20%).

Conclusion: Our study suggests that fibrescope bronchoscopy is the best tool for diagnosis of sputum smear–negative Pulmonary Tuberculosis

It helps in early diagnosis of sputum smear negative pulmonary tuberculosis and prevents adverse effects due to random use of ATT.

HS-CRP as an Inflammatory Marker in Assessing Severity in Chronic Obstructive Pulmonary Disease - A Case Control Study

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Introduction and Objectives: Systemic manifestation of chronic obstructive pulmonary disease include increased oxidative stress and changes in circulating levels of inflammatory mediators. hsCRP is one of the chief inflammatory markers. The present study to evaluate hsCRP as an auxiliary marker in chronic obstructive pulmonary disease as an indicator of elevated hsCRP in the plasma with various prognostic factors.

Materials and Methods: The study was conducted in the hospitals attached to Bangalore medical college and research institute and data was collected from November 2016–November 2018. We studied 50 cases of COPD (15 control & 35 patients) using hscrp. In patients hscrp values were measured and compared with those of 50 healthy controls. Then the serum hsCRP was subjected to Pearson correlation analysis and logistic regression analysis of COPD outcomes in COPD subjects like age, gender, smoking status, comorbidity, MRC grading, FEV₁, FVC and GOLD staging.

Results: hs-CRP levels were higher in COPD patients than in controls (7.02±5.11 vs 0.78±9.3; p < 0.001). Correlation was found with the following variables: pack year (r = 0.78, p < 0.001), FEV₁/FVC (r = -0.969; p < 0.01) and GOLD staging (p < 0.01).

Conclusion: The circulating levels of the inflammatory marker hscrp were elevated in patients with COPD, supporting the view that COPD is not an inflammatory disorder. hs-CRP levels in COPD patients were the best correlated with pack years, FEV₁, FVC and GOLD staging.

An Unique Presentation of Tuberculosis in a Patient with Primary Hypertrophic Osteoarthropathy and Myelofibrosis - A Case Report

Sashi Deep Reddy Telukutula, Neliaappa Ganesan SK, Vidya TA, Mohammed GA
SMR Medical College Hospital & Research Centre, Pothare, Tamali Nadu

Introduction: Primary hypertrophic osteoarthropathy also known as rheumatoid arthritis is known to be associated with skeletal, connective tissue disorders and myelofibrosis. They are predisposed to secondary infections such as tuberculosis, probably due to immunocompromised state, hence frequent follow up is essential in these patients. We report one such rare case.

Case Report: A 31 year old male presented to us 3 years back, with complaints of fatigue, generalized weakness and swelling of fingers and toes for 4 months. On examination he was pale, had coarse facies & grade 4 digital clubbing with splenomegaly. Laboratory investigations were normal. Eosinophilia was demonstrated on X-ray. A diagnosis of primary hypertrophic osteoarthropathy was made after the secondary causes were ruled out. Endoscopy showed hypertrophied gastric mucosal folds and colonochoscopy was normal. Bone marrow biopsy result was in favour of myelofibrosis. Supportive treatment with blood transfusion was given and the patient was advised frequent follow up. Further follow up after one year revealed intermittent pneumonitis, diagnosed via transbronchial lung biopsy. After 3 years the patient presented with history of fever and chronic cough for 1 month. No AFB were detected in sputum sample and culture sensitivity didn’t have any growth. CECT abdomen was taken which showed splenomegaly with features of microabcesses. The patient was taken up for bronchoscopy and then, AFB were detected in the bronchial lavage sample. The patient was started on anti-tubercular drugs and he is currently on ATT.

Discussion: Pachydermatoperiostosis is a rare genetic disorder of skeletal and connective tissue growth. However, myelofibrosis associated with it, is life threatening in view of the immunocompromised state and susceptibility to secondary infections. The treatment is mainly supportive, by means of blood transfusions and prevention of secondary infections.

Conclusion: We present this case because of its rare occurrence and to highlight the importance of follow up in such patients.

Pulmonary Carcinoid Presenting as Recurrent Pneumonia - An Exception to the Norm

Ravi Kachroo, K Vishwanath, T Anil Kumar, Ashwin Kulkarni
Ramiah Medical College, Bengaluru, Karnataka

Introduction: Carcinoids are extremely rare group of pulmonary neoplasms characterized by neuroendocrine differentiation with relatively indolent clinical course. Grouped as bronchial carcinoids, these malignant neoplasms are thought to be derived from peptide and amine producing neuroendocrine cells that have migrated from the embryological neural crest. Carcinoids can arise from different organs including thymus, GI tract(most common), lungs and ovary. Pulmonary carcinoid accounts approximately 1-2% in adults.

Case Report: A 18 yrs male presented with recurrent episodes of cough and fever for last 18 months having received multiple antibiotics and asthma medications without any relief. Family history of bronchial asthma present. Past history of Tuberculosis or contact with Pulmonary Tuberculosis was absent. Examination finding-BMI-20.5(ht-168cm, wt-58 kg), no cyanosis/ clubbing/ cyanoderma/lymphadenopathy. Crepitations in Left Upper Lobe (LUL) heard, other systematic examinations were normal. On investigation- T.LUC 12400 (27 neutrophils), CRP 78, ESR 35mm/1hr, WBC 8500, Hb 10.7g%, < 10 yrs old serum (0.01) FEV₁/FVC (= 0.969; p < 0.01) and GOLD staging (p < 0.01)

Conclusion: The circulating levels of the inflammatory marker hscrp were elevated in patients with COPD, supporting the view that COPD is not an inflammatory disorder. hs-CRP levels in COPD patients were the best correlated with pack years, FEV₁, FVC and GOLD staging.

Serum uric acid as a Prognostic Marker in chronic obstructive pulmonary disease patients

P Sarasvati Rao, Anitha
Sr Devaraj University Medical College, Tamaka, Kolar, Karnataka

Introduction: Serum uric acid(UA) is the final product of purine catabolism, which increases significantly during hyperuricosuric state. Uric acid is not a constituent of any known constituent present in the respiratory tract. As respiratory tract is exposed to higher level of oxidative stress due to cigarette smoking, biocides, etc. Antioxidants like Uric Acid, ascorbic acid, α-tocopherol, ferritin lining the epithelium provides important defense against these oxidants. Elevated uric acid levels have been associated with the presence of systemic inflammation and increased cardiovascular risk. Increased levels of uric acid have been shown in respiratory disorders. The aim of this study is serum uric acid levels in acute COPD exacerbations and its utilization in predicting future exacerbations of COPD.

Materials and Methods: We have taken the association of serum uric acid levels in acute COPD exacerbations and its utilization in predicting future exacerbations of COPD.

Design: cross sectional study conducted in R.L. Jalappa Hospital, Kolar.

Participants: All patients >18 years current or ex-smokers (>30 pack-years) with a previous diagnosis of COPD by a respiratory physician.

Results: 104 patients were admitted with COPD between JUNE 2017-JUNE 2018. There was a negative correlation found between serum uric acid and age which was statistically significant. There was a positive correlation between serum uric acid and sex which was statistically significant. There was a negative correlation found between serum uric acid and FEV1 which was statistically significant. There was a positive correlation found between serum uric acid and CO which was statistically significant.

Conclusion: UA level might be a beneficial biomarker in predicting acute exacerbations of COPD and its short term effects, hospital stay and its mortality. Measurement of UA level is among the routine analyses and it is an easily accessible, cheap, and widely available test. Early detection of high-risk patients via UA measurement would contribute improved prognosis by leading to more intensive treatment.

Validity of PSI Scoring in Assessing Outcome of Community Acquired Pneumonia in Indian Population

Jiju M Ignatius, C Jayakumar, C Sudheendra Ghosh
Sree Gokulam Medical College, Kerala

Introduction and Objectives: Majority of morbidity and mortality of community acquired pneumonia is in developing countries where it has not been studied sufficiently to correlate with the ethnic, regional, and other local factors. Scoring systems have been developed.
and used mostly in the developed western countries but validity of the same in developing countries have been seldom tested. Our objective was to ascertain the validity of Pneumonia severity Index(PSI) scoring system in assessing the severity of community acquired pneumonia in Indian population.

**Materials and Methods:** The prognostic study comprised of 89 adult patients who were admitted to our hospital with community acquired pneumonia. The patients were monitored from admission upto 1 week after discharge, with recording of different outcome variables. The outcome variables used in the PSI scoring system were then statistically analysed for significant results.

**Results:** Statistical analysis showed significant prognostic value of PSI scoring in predicting need for ICU admission even after adjusting for various risk factors. The PSI score was highly significant (p<0.01) in predicting mortality and need for respiratory support, and death with cut-off values 126, 139.5 respectively (all having p-values of less than 0.05).

**Conclusion:** PSI index remains as a significantly powerful predictive tool in Indian population, especially in identifying patients with high mortality risk and need ICU admission even if one mistake in technique and minor correlation with the widely used CURB65 scoring system.

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**Evaluating appropriateness of use of inhaled drug delivery systems in COPD patients**

Peyalee Sarkar
Darbhanga Medical College and Hospital, Darbhanga, Bihar

**Background:** Chronic obstructive lung disease(COPD) is a growing health burden for India with a significant mortality of 102.3,108,000 and 6,74,000 DALYs out of world total of 27,76,000 DALYs; thus significantly affecting health related Quality of Life in the country. Corner stone technique(considered even if one mistake in technique) is a growing health burden for India with a significant mortality of 27,76,000 DALYs; thus significantly affecting health related Quality of Life in the country. Corner stone technique(considered even if one mistake in technique)

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**Kartagener Syndrome – A case report of Atypical Presentation with Review of Literature**

Harish, Rajendran, Prabhu, Senthil Kumar
KAPV Govt Medical College, Chennai

**Background:** Primary ciliary dyskinesia (PCD), also called Kartagener syndrome, is a rare, ciliopathic, autosomal recessive genetic disorder that causes defects in the action of cilia and纤毛. This study highlights the importance of adding PSS to the differential diagnosis of OP, here in a rare case of Kartagener syndrome with primary amenorrhea and pulmonary hypertension.

**Case Report:** A 18 year old female presented with easy fatiguability, breathing difficulty on walking, cough with expectoration and not attained menarche. She was anemic with pede Edema clubbing and gives history of recurrent chest infections. Systemic examination revealed that she has dextrocardia and situs inversus was suspected. X-ray of the chest showed no abnormality. While evaluating the cause, she was positive for ANA and Anti-RO. Lip biopsy proved to be Sjogren syndrome.

**Conclusion:** ILD occurs most commonly in secondary forms of Sogren syndrome. Most common in IJD in sarcoidosis type, this is a rare variety which presented as organizing pneumonia and this case is unusual as the diagnosis of OP predated the diagnosis of PSS.

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**Organizing Pneumonia Associated with Primary Sjogren Syndrome**

K Muralidharan, M Anusuya, CS Gauthaman, A Ramalingam
Govt Stanley Hospital, Chennai, Tamil Nadu

**Introduction:** Connective tissue disease is known to be the cause of organizing pneumonia (OP) and features of OP usually occur in the context of an already diagnosed disease. Although connective tissue disease is considered a risk factor for Arthritis has been known to induce OP, Primary Sjogren Syndrome (PSS) has rarely been etiologically associated with OP. Hence, we present a case of organizing pneumonia(PSS) and OP were made concurrently and verified by tissue biopsies. Our case highlights the importance of adding PSS to the differential diagnosis of OP.

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**Study of Pleural Fluid C-Reactive Protein in Etiological Diagnosis of Pleural Effusion**

CT Meyyammai, Gladstone Vijayakumar, Anbarasu
KAPV Govt Medical College, Chennai

**Background:** Primary pleural effusion is one of the common problems in internal medicine where diagnosis is easily made in most of the cases. The aim of this study was to estimate the clinical profile of TB pleural effusion among the admitted adult patients and to study the characteristics of the HIV infected patients among them.

**Methodology:** A cross sectional descriptive study was carried out from September 2014 to August 2015. Newly diagnosed cases of TB Pleural Effusion were included in the study. Statistical analysis was done using SPSS-21.

**Results:** There were 50 cases of Pleural Tuberculosis. Most common method of diagnosis was a combination of radiology and cytology (44.8%) while only 5.1% required additional histopathology. Those who required histopathology had a mean ADA of 22.6 which was significantly lower than those who did not require biopsy. Analysis of pleural fluid showed that the median cell count was 1915 cells/mm³, Mean lymphocytic percentage 94.10% (Range: 50-95%), Median Protein levels and Albumin levels being 3.50 g/dl and 2.08 g/dl respectively, Median Glucose levels 88.00 mg/dl, Median LDH levels 446 U/L and Median Amulysosome levels being 50,000 U/L. There was no AFB in any of the smears of pleural fluid. There was no significant difference in the ADA levels in pleural fluid based on HIV status.

**Conclusions:** Diagnosis of TB pleural effusion requires combined modality approach including clinical analysis, radiological and rarely pleural fluid analysis or biopsy. High ADA levels is strongly suggestive of TB pleural fluid C-Reactive Protein in Etiological Diagnosis of Pleural Effusion. **K** Muralidharan, M Anusuya, CS Gauthaman, A Ramalingam
Govt Stanley Hospital, Chennai, Tamil Nadu

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**Objective:**

- To find the diagnostic value of pleural fluid CRP in the diagnosis of pleural effusion.
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- To find out the significance of pleural fluid CRP in the diagnosis of pleural effusion.

**A Study of the Clinical Profile of TB Pleural Effusion among Admitted Patients in a Tertiary Hospital**

Sinimol Joseph, Ninith Yasous, Soumya Umesh, GD Ravindran
ST Johns Medical College, Bangalore, Karnataka

**Introduction and Objectives:** EPTB constitutes about 15-20% of all cases of TB with Pleural effusion being the most common (27.1%). The aim of this study was to statistically evaluate the clinical profile of TB pleural effusion among the admitted adult patients and to study the characteristics of the HIV infected patients among them.

**Methodology:** A cross sectional descriptive study was carried out from September 2014 to August 2015. Newly diagnosed cases of TB Pleural Effusion were included in the study. Statistical analysis was done using SPSS-21.

**Results:** There were 50 cases of Pleural Tuberculosis. Most common method of diagnosis was a combination of radiology and cytology (44.8%) while only 5.1% required additional histopathology. Those who required histopathology had a mean ADA of 22.6 which was significantly lower than those who did not require biopsy. Analysis of pleural fluid showed that the median cell count was 1915 cells/mm³, Mean lymphocytic percentage 94.10% (Range: 70-100%), Median Protein levels and Albumin levels being 3.50 g/dl and 2.08 g/dl respectively, Median Glucose levels 88.00 mg/dl, Median LDH levels 446 U/L and Median Amulysosome levels being 50,000 U/L. There was no AFB in any of the smears of pleural fluid. There was no significant difference in the ADA levels in pleural fluid based on HIV status.

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- To find the diagnostic value of pleural fluid CRP in the diagnosis of pleural effusion.
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- To find out the significance of pleural fluid CRP in the diagnosis of pleural effusion.
effusion but not confirmatory. Most patients who required pleural biopsy had lower levels of ADA. Patients with HIV patients high ADA levels are more predictive of TB effusion in those with higher CD4 levels.

Study of Spirometric Evaluation in Type 2 Diabetes Mellitus
CT Meyyammal, Gladstone Vijayakumar, Anbarasu Meenakshi Medical College Hospital and Research Institute, Enathur, Kanchipuram, Tamil Nadu

Background: Diabetes is a multisystem disorder that affects many organs of the body. Diabetes can present with microvascular pathologies. There are histopathological changes seen in lungs of diabetic subjects such as thickening of alveolar epithelial and pulmonary capillary basal lamina leading to decreased pulmonary elastic recoil and lung volume. Pulmonary function tests are employed to access the functional capacity of lungs. Lung as target organ in diabetes mellitus presents with 3 week duration of fever. He was started on Broad spectrum antibiotic with control of blood sugars. Sputum culture yielded klebsiella. Lesion turned to gangrene. Hence, “time means tissue and life”.

Discussion: AFOP is usually Idiopathic, other likely causes that were reported are drugs, infection, auto immune disease and immunosuppression. A sub acute illness with recovery more commonly observed with a fulminating course with rapid progression to death, has also been reported.

Conclusion: AFOP being an uncommon entity pose a diagnostic as well as therapeutic challenge, and it can cause massive hemoptysis which could be a potential terminal event as in this case. It also shows the probable association of autoimmune disorders and AFOP.

Study of the Etiology, Clinical Profile, Prognostic Markers and Outcome of Acute Febrile Illness (AFI) Related Acute Respiratory Distress Syndrome (ARDS) C Parale, A Varmady, A Sonawale Seth G.S. Medical College and KEM Hospital, Mumbai, Maharashtra

Introduction and Objectives: Acute Respiratory Distress Syndrome (ARDS) is a complication of acute febrile illness(AFI) is well known and is associated with significant morbidity and mortality. Hence, we study the etiology, clinical and laboratory profile and outcome of patients admitted with AFI/ARDS along with the utility of ARB parameters, Sequential Organ Failure Assessment (SOFA) Score and Lung injury score (LIS) as prognostic indicators and predictors of outcome.

Materials and Methods: A total of 117 patients above the age of 18 years with AFI/ARDS were included in this prospective observational study conducted over 18 months. Evaluation included history and clinical examination. CBC, LFTs, RFTs, DIC profile, Chest X-ray, Blood culture, tropical panel test (anti-leptospirosis antibodies, Dengue NS1 and IgM, H1N1 RT-PCR on throat swabs) and serological test for dengue. SOFA score at admission and at 48 hours and LIS score, DIC score (at admission) were calculated for every patient respectively.

Results: Predominant age group in this study population was between 26-45 years with a male predominance. The three most common causes of ARDS were dengue (24.6%), H1N1 (23.8%) and undifferentiated fever (23.3%). 30% of the study population had hypotension on admission. The mortality rate was 25.4% with mortality being highest in patients with undifferentiated fever and leptospirosis. SOFA score at admission amongst the survivors was 4.78±2.2, whereas that among the non-survivors was 7.93±3.81. Delta SOFA score was a significant predictor of outcome. PaO2 and LIS and DIC score did not predict outcome significantly.

Conclusions: Dengue is the most common cause of ARDS among all tropical diseases. Factors predicting outcome in ARDS complicated by tropical infections are PaO2 at admission, acidosis, hypoalbuninemia, SOFA score at admission and 48 hours, delta SOFA score and PaO2/FIO2 ratio.

Necrotizing Pneumonia in Type 2 Diabetes
Jijun M Ignatious, Sanjay Zachariah, Sudin Koshy, C Jayakumar Sree Gokulam Medical College, Kerala

Introduction: Pneumonia progressing to necrotizing type has high mortality and morbidity. While rare, but when reported in literature, it is mostly seen with uncontrolled diabetes. Necrotizing pneumonia lies on a spectrum between lung abscess and pulmonary gangrene. Hence, 2x2 table for SOCP 43.3±22.5x100)

Case Report: 61 year old male, chronic alcoholic, diabetic for 8 years presented with pneumonia which was not responding to antibiotics. Chest Xray showed multiple cavities in lower left zone. CT chest with contrast confirmed Necrotizing pneumonia. He was started on Broad spectrum antibiotic with control of blood sugars. Sputum culture yielded Klebsiella. Lesion turned to lung abscess which led to lung removal completely.

Discussion: The early administration of antibiotics before the occurrence of significant under perfusion of infected lung tissue helped in local tissue delivery of antibiotics and resolution.

Conclusion: Early CT study of chest and administration of Broad spectrum antibiotics in unresolved pneumonia may help to preserve pulmonary function in elderly diabetic patients is not only life saving but also guarantees them a normal life ahead.

Not a smoker, but are you safe? The whole story on Urban COPD
Tonganokar AH, Mehta F; Pazare AR
Seth G.S. Medical College and KEM Hospital, Mumbai, Maharashtra

Introduction & Objectives: To document the risk factors, clinical profile & severity of COPD among non-smokers from urban areas.

Materials & methods: An observational cross-sectional study done at a tertiary care centre on 60 non-smoker COPD patients from urban areas diagnosed clinically, radiologically & by spirometry over 18 months. Those with proven histological diagnosis, excluded. COPD was diagnosed by the GINA criteria. Clinical data were obtained by history and examination. Spirometry was performed by the hospital low cost spirometer. The study was done at a tertiary care centre on 60 non-smoker COPD patients from urban areas. Results: 39 males, 21 women, with mean age 65.7 years were studied. The commonest risk factors for COPD were indoor air pollution, past history of tuberculosis, occupational exposure, low socio-economic class. 78.3% had abnormal X-ray & 80% abnormal HRCT chest. Pulmonary function tests in survivors was 4.78±2.2, whereas that among the non-survivors was 7.93±3.81. Delta SOFA score was a significant predictor of outcome. PaO2 and LIS and DIC score did not predict outcome significantly.

Conclusions: This study was able to identify the demographic pattern, risk factors, common X-ray & CT abnormalities, severity of obstruction & incidence of PH among urban non-smoker population. The highest risk was from indoor air pollution, past tuberculosis and occupational exposure.

Benefits of Large-Volume Paracentesis on Lung Health in Cirrhotic Patients with Massive Ascites

Introduction & objectives: Gas exchange lung functions are known to be perturbed in advance cirrhosis and ascites. The aim of present study is to assess the beneficial effects of paracentesis on this aspect of lung health in patients with massive ascites and advanced cirrhosis. Materials & methods: Fifty patients with Child Pugh score of B & C were subjected to large volume paracentesis by standard method in our tertiary care institute after ethical clearance. Patients with CVD, renal failure, GI hemorrhage, advanced encephalopathy and those requiring mechanical ventilation were excluded. A workup for hematologic and biochemical profile including liver and renal function was done. Record of vital parameters and ABG was performed before and after the paracentesis procedure.

Results: The maximum number of patients was in 31-50 years of age and 88% of them were males. More than half of them were nonsmokers. Mean BMI of study patients was 23.7±2.9. Majority of them had hypertension (79.6±5.8%). 37.9% of them were smokers. 122.9±11.8 and 83.44±6.8 respectively. Liver function test showed a total bilirubin of 5.0±5.9 with albumin of 2.6±1.2. Thrombocytopenia was present in 37.9%. 29 patients had clinical signs of ascites for more than 5 years. 11 patients had chronic cough, wheezing and breathlessness. PaO2 was increased (93.9±1.2, 95.4±1.4, p<0.001). A significant correlation with severity of obstruction. The correlation between PH and severity of obstruction was also statistically significant, as also correlation between X-ray and HRCT of chest.

Conclusions: Most patients were elderly, mean age was 65.7 years, with a male predominance. The three most common causes of ARDS were dengue (24.6%), H1N1 (23.8%) and undifferentiated fever (23.3%). 30% of the study population had hypotension on admission. The mortality rate was 25.4% with mortality being highest in patients with undifferentiated fever and leptospirosis. SOFA score at admission amongst the survivors was 4.78±2.2, whereas that among the non-survivors was 7.93±3.81. Delta SOFA score was a significant predictor of outcome. PaO2 and LIS and DIC score did not predict outcome significantly.

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Conclusions: This study was able to identify the demographic pattern, risk factors, common X-ray & CT abnormalities, severity of obstruction & incidence of PH among urban non-smoker population. The highest risk was from indoor air pollution, past tuberculosis and occupational exposure.
Correlational Study of Body index with hs-CRP in Assessing Disease Severity in Stable COPD Patients

Isha Bansal, Vinay Wagha
D.Y. Patil Hospital and Research Centre, Navi Mumbai, Maharashtra

Background: Very few studies are available on association between BODE index and hs CRP levels we aimed to investigate the relationship between the BODE index and biomarkers like C-reactive protein (hs CRP) in stable COPD patients.

Objective: To investigate the relationship between the BODE index and biomarkers like C-reactive protein (hs CRP).

Materials & Method: A cross-sectional study of 30 patients with clinically and spirometrically diagnosed cases of COPD was performed. Data on patient’s demographic characteristics, pack years, BODE index, PFTs, and hs-CRP were analyzed.

Results: A total of 30 patients had moderate airflow obstruction (GOLD stages II and III), mild airflow obstruction was present in 22 patients (GOLD stage I). The hs-CRP was normal in 2 patients, while it was raised in 28 patients. The value of hs-CRP was correlated with age, pack years, BODE index, and GOLD stages. There was a significant negative correlation between hs-CRP and BODE index (p<0.01) and a significant positive correlation between hs-CRP and GOLD stage (p<0.01).

Conclusion: A raised level of CRP in COPD indicates reduced lung function and it has positive correlation with BODE index.

High Voltage Electrical Induced Lung Injury

Hari Kumar, Radhakrishnan
KAVP Government Medical College, Trichy, Tamil Nadu

Background: India accounts for the most number of electrocution related deaths in the world. Visceral injuries in electricity exposure is rare. Lung involvement is extremely rare. The case of lung injury following a high voltage electrical exposure is reported.

Case report: A 25 years healthy male without any co-morbidities gave a history of exposure to 10000 volt electrical current when his head came in contact with a high voltage electricity exposure is reported.

Conclusion: Electrical injuries account for nearly 5% of admissions to major burn centers. Least frequently involved organ is the lung, since it contains air and is a poor conductor of electricity.

Polycythemia at High Altitude: Experience from a tertiary care center in North India

Rajni Sharma, Uday Yamandra, Rajan Kapoor, Suman Pramanik, San, Shikha Yadav, Velu Nair
Army Hospital (Research & Referral), New Delhi

Introduction: The declining cutoffs for defining polycythemia have led to increased referrals of polycythemia. High altitude causes a rise in hemoglobin as an adaptive mechanism. There are no cutoffs for delineating adaptation from the pathological rise.

Aim & Objectives: To study the number of patients of Polycythemia Vera (PV) and to estimate the total number of patients from high altitude areas (HAA) referred for evaluation of polycythemia.

Patients and methods: We prospectively collected details of all patients referred for PV from HAA from our center since 01 Jan 2018. Patients were subjected to detailed history, examination for any other secondary cause, serum EPO levels, bone marrow studies for pancytopenia and mutation studies (JAK2V617F, Exon 12 mutation).

Results: A total of 74 patients were analyzed in the study. 37% of the referred individuals are highlanders. The mean altitude was 13000ft above mean sea level. The mean HB was 19.21g/dL and mean Hct was 57.21. Obesity leading to OSA was seen in 2.3% of the patients, 0.8% were smokers. The JAK2V617F mutation was positive in 2.4% patients and even 12 mutation was seen in none. Mean serum EPO was 7.79 IU/L. Polycythemia was seen in 38.5% of the patients. In total as per the WHO criteria, only 24% of the patients had Polycythemia Vera considering the only pancytopeny and increased HB>16.5g/dL. But if we consider raised HB with JAK2 positivity only 2.9% of the patients could be classified as polycythemia vera.

Conclusion: In spite of hemoglobin ranging up to 20g/dL in individuals at high altitude, the risk of it being pathological is extremely low. Evaluation of the sojourners with detailed pathological tests is unwarranted.
Study of Relationship between Serum Calcium and Serum Magnesium with Components of Metabolic Syndrome

Prasanna Kumar HR, Shaheenze Dhuria
JSS medical college and Hospital, Mysuru, Karnataka

Introduction: Metabolic syndrome is a cluster of disorders which individually, but together account for a significant cause of morbidity and mortality. Its pathogenesis is complex and not completely understood. It is now proposed that Marginal Magnesium may be related to pathogenesis or complication of metabolic syndrome. Deranged serum calcium and magnesium may be associated with hypertension, Diabetes, Obesity, Raised triglycerides (TGs) and decreased high density lipoproteins (HDLs) levels.

Objectives: To establish the relationship between Serum calcium and Serum magnesium levels with metabolic syndrome and its components individually.

Methods: A Hospital based exploratory and comparative study was conducted in JSS HOSPITAL, Mysuru. 100 individuals (50 case and 50 controls) were studied whose Serum Calcium and Serum Magnesium levels were estimated by standard methods and were compared among the cases and controls with each components of metabolic syndrome individually.

Results: Significant inverse association between serum magnesium levels with metabolic syndrome (p value 0.014), serum magnesium and diabetes (p value 0.016) and serum magnesium with obesity (p value 0.030) were seen. Also, highly significant correlation was observed between serum magnesium and hypertension (p value < 0.001). Rest analysis showed non significant association between serum magnesium and hyperglycemia (p value 0.595), serum magnesium with low LDL (p value 0.485) and non significant association between serum calcium and metabolic syndrome, between serum calcium and magnesium levels and components of metabolic syndrome.

Conclusion: Low serum magnesium levels are seen in patients with metabolic syndrome, hypertension, diabetes and obesity whereas serum calcium does not show any significant association. Thus, correction of Serum Magnesium levels may reduce the prevalence and/or Incidence of Metabolic Syndrome and its various components. Hence it is suggested that dietary supplementation of magnesium may have role in prevention of metabolic syndrome.

Study of Cognitive Impairment in Metabolic Syndrome and Association with Inflammatory Markers

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Introduction: Metabolic syndrome (Mets) is one of the leading causes of death and morbidity in the world. Although attention on vascular and microvascular complications are well recognized, there is lack of awareness about cognitive dysfunction. Diabetes is a risk factor for development of dementia, which has a great impact on self care and quality of life.

Objective: To study association between cognitive impairment with levels of inflammatory markers in subjects with Metabolic syndrome compared to healthy controls.

Methods: 80 subjects between 20-65 years were studied, of 40 were those who fulfilled criteria of Metabolic syndrome (cases) and 40 healthy controls. All of them were evaluated for Cognitive impairment with MoCA-8 and MSE scores. They were subjected for estimation of FBS, PPBS, HbA1C, Fasting lipid profile,Serum IL-6 and CRP, and comparative assessment was analyzed.

Results: Out of 40 controls none had cognitive impairment, while 6 (15%) out of 40 study subjects had Cognitive impairment. Mean FBS levels, HbA1c levels of study subject with cognitive impairment was significantly higher than those of healthy controls. Mean CRP and Median IL-6 values (14.08 and 261.54) were elevated in cases with cognitive impairment (p value being 0.001).

Conclusion: This study showed that amongst the 5 factors of metabolic syndrome, poor glycemic control and longer duration of diabetes is statistically significant correlation with cognitive impairment. There was a significant correlation between cognition and elevated inflammatory markers (CRP, IL-6) among subjects with metabolic syndrome. Thus strict glycemic control should be aimed in all diabetic patients. Elevated inflammatory markers in diabetes would pronouce the onset of underlying cognitive dysfunction.

Vitamin D deficiency in metabolic syndrome

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Introduction and Objectives: Although the pathogenesis of metabolic syndrome (MetS) has not been understood comprehensively, recent studies has proposed an association between micronutrients deficiency (particularly vitamin D) and higher rates of metabolic syndrome. Short telomeres are also associated with an increased risk of metabolic abnormalities.

There is paucity of literature in the relationship of serum vitamin D levels and metabolic syndrome. Hence the objective of our study is to understand the relationship between vitamin D deficiency and telomere dysfunction in patients with metabolic syndrome.

Materials and Methods: Case control study in 40 males with metabolic syndrome (according to the IDF criteria and 40 healthy controls). Serum vitamin D levels and routine investigations were done. Serum vitamin D was measured by radioimmunoassay (RT-PCR). Telomerase Activity (RT-PCR) and Telomere length (TTGCA) were done by using RT-PCR and 45-450 G band. Unpaired t test and Pearson correlation coefficient and regression analysis were used as statistical tools.

Results: Mean serum vitamin D levels was 7.51±3.21 ng/ml in controls and 7.49±2.18 ng/ml in cases (p < 0.05). There was a significant inverse association between serum vitamin D level and BMI, waist circumference, and waist hip ratio. Serum vitamin D levels correlated negatively with serum HDL-C level. Serum vitamin D levels correlated positively with BMI, waist circumference, and Epicardial adipose tissue thickness (EAT). Acanthosis nigricans, subcutaneous fat, and region-specific fat distribution were associated with Vitamin D levels. Short telomeres were also associated with vitamin D levels and metabolic syndrome.

Conclusion: Vitamin D deficiency and obesity are associated with shorter telomeres. It is concluded that Vitamin D is a potential modifiable intervention to prevent the progression of metabolic abnormalities.
Serum Cystatin C and Microalbuminuria in Patients with Metabolic Syndrome

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Introduction & Objectives: Metabolic Syndrome (MetS) is a major public health problem, especially in developing countries. Its components, individually and together, are important risk factors for atherosclerotic diseases. Cystatin C (CysC) belongs to a superfamily of competitive lysosomal cysteine protease inhibitors. CysC has emerged as a novel sensitive marker of renal disease. Some studies have postulated its relation with cardiovascular risk though data is scarce from India. Microalbuminuria is an early sign of nephropathy and CKD and it may also signify endothelial dysfunction. We studied CysC and microalbuminuria in patients with MetS.

Materials & Methods: Sixty patients with Asian cutoffs of IDF criteria for MetS and 60 controls were studied. The study was hospital-based, cross-sectional and observational. Patients with pre-existing renal disease were excluded.

Results: The mean age of the cases was 50.3±7.2 years and that of controls was 49.9±8 years. CysC was found higher in cases as compared with controls (3.21±1.76 mg/dl vs 0.92±0.34 mg/dl; p<0.001). CysC also correlated with severity of MetS indicated by number of components present. CysC levels among patients with 3, 4 and 5 components of MetS were 0.51±0.23 mg/dl, 2.51±0.49 mg/dl, 4.22±1.19 mg/dl respectively (p=0.0003). Microalbuminuria was found more prevalent in MetS group (73% vs 8.3%; p=0.001). CysC and microalbuminuria correlated positively with BMI, fasting blood glucose, LDL, triglycerides, sensitivity CRP, systolic and diastolic blood pressure and negatively with HDL. CysC level was also significantly higher in patients with microalbuminuria as compared with those without (3.71±1.55 mg/dl vs 1.85±1.07 mg/dl; p<0.001).

Conclusion: CysC and microalbuminuria are elevated in patients with MetS having normal kidney function tests. Hence, they may also be used as markers of cardiovascular and renal risk. Preventive steps in this group are likely to prove beneficial.

Tropical Medicine

Retrospective Study of Clinical Profile of Acute Febrile Illness in a Tertiary Care Hospital

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Background: Acute febrile illness is a common cause of patients seeking health care settings posing a diagnostic and therapeutic challenge to the health care workers. This study was to study the aetiology, clinical and laboratory profile of patients with acute febrile illness admitted to our hospital from urban area (Navi Mumbai) and rural area (Maharashtra).

Material and Methods: A retrospective data analysis was carried out by collecting the details of patients above the age of 13 years admitted with fever of less than 8 days with or without complications during the period from January to December 2017 at tertiary care hospital. Relevant investigations for the diagnosis of illness and organ dysfunction were collected and analysed for each patient.

Result: Out of 648 patients analysed, male 431 (66.21 %) and age group of below 40 years comprised the larger proportion of cases with total 399(61.56 %). The diagnosis was available in 515 (79.48%) cases. The most common symptoms reported amongst the patients included generalised body ache (73.12%), headache (49%), abdominal pain (23%), loose motions (18%), vomiting (8%). Clinical signs recorded and significantly associated were icterus (36.88 %) and tachycardia (19.44%). A more prominent clinical sign of dengue was a shock (70.16%) followed by haematoxicity (61.56%) and hepatic (29%) derangements. Overall mortality was 0.4% with 2 cases in dengue, 1 case in malaria group. The largest number of cases (68.36%) were recorded in monsoon and post-monsoon season.

Conclusion: This study reveals that dengue, malaria, hepatitis are common causes of acute febrile illness requiring admission in hospital affecting largely middle-aged population.

Critical Care Medicine

Analytical Study of Mortality in ICU

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ICU is the unit where various types of critical cases and high number of deaths are also recorded here. In spite of so many deaths occurring at this unit, cause of death is poorly reported. We studied the different causes for deaths which includes single and multiple factors. The data helped us in

Clinical profile and treatment outcome in scrub typhus patients in central India

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Government Medical College, Nagpur, Maharashtra

Background: Scrub typhus is an acute febrile illness caused by Orientia tsutsugamushi. It is known from various parts of India. However, reports from central India region are scarce. Hence, present research was undertaken to study the clinical profile, outcome of scrub typhus cases admitted in tertiary care center of central India.

Method: In this study, total 140 patients with an acute febrile illness diagnosed as scrub typhus by positive IgM antibodies to Orientia tsutsugamushi were enrolled, over a period of 2 months (August to October 2018). All relevant data were recorded and analyzed.

Results: Among 140 cases, 52.14% patients reported from urban area and 47.85% patients from rural area. The mean age of patients was 43.75±16.82 years, ranged from 12-83 years with female (81 females) predominance. and late complications like AKI, cellulitis, Myocarditis. The number of bites to be 83,000 per annum with 11,000 severe thrombocytopenia. This study reveals that dengue, malaria, typhus patients in central India. It is known from various parts of India. However, reports from central India region are scarce. Hence, present research was undertaken to study the clinical profile, outcome of scrub typhus cases admitted in tertiary care center of central India.

Conclusion: Scrub typhus has become a leading infectious disease in central India and an important cause of infectious fever. An increasing awareness of this disease coupled with early management will go a long way in reducing both morbidity and mortality from this disease.

Prognostic Value of NLR in Snake Bite Patients

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Andhra University, Visakhapatnam, Andhra Pradesh

Introduction and Objectives: India is a snake-bite endemic region. The most common cause of death is to have the highest snakebite mortality in the world. WHO estimates place the number of bites to be 83,000 per annum with 11,000 deaths from venomous snake bites. It is known from various parts of India. However, reports from central India region are scarce. Hence, present research was undertaken to study the clinical profile, outcome of scrub typhus cases admitted in tertiary care center of central India.

Materials and Methods: In this study, 124 patients admitted in tertiary care hospital from June 2017- Sept 2018 were retrospectively reviewed. The control group comprised of 124 age- and gender-matched healthy subjects. These patients were examined using their previous laboratory results, analysis of complications that developed during the hospitalization.

Results: Out of 124 patients 38 patients are bitten by poisonous snakes with patients showing hemotoxic or neurotoxic symptoms. 12 patients developed AKI during the stay in hospital and 4 patients developed cellullitis. The parameters for the prognosis of snakebites are very valuable. The neutrophil/lymphocyte ratio (NLR) provides a basis for further studies. It is known from various parts of India. However, reports from central India region are scarce. Hence, present research was undertaken to study the clinical profile, outcome of scrub typhus cases admitted in tertiary care center of central India.

Conclusion: Prognostic value of NLR in snake bite patients warrants further clinical research to establish its role as a useful biomarker in predicting outcomes and long-term complications in these patients.

Prophylactic Platelet Transfusion: An Unfortunate Misconception

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Introduction: Classic dengue fever presentation has expanded its horizon by involving various organ systems recently & is named as expanded dengue syndrome by WHO 2012. This changing presentation & rising burden across the globe may lead to delayed diagnosis & under reporting of this syndrome.

Aim of study: To analyse the mode of presentation, the clinical course & outcome of patients with expanded dengue syndrome.

Materials & Methods: 520 cases of expanded dengue syndrome as per WHO definition criteria 2012 were studied with their informed consent. Detailed history, thorough clinical examination & relevant investigations were done in all cases. Their age & sex distribution, signs and symptoms, physiological parameters and course of the illness & outcome were analysed in detail. Standard treatment guidelines were followed in all cases.

Observation: 301 patients were male & 219 were females. Dengue was more common in male to female ratio of 2:1. Their age varied from 12 years to 76 years with the average age of 47.5 years. 92 % of cases presented with various dengue hemorrhagic manifestations, 5.5% neurological, three with acute kidney injury & eight patients had co-infection with malaria. The commonest dengue hemorrhagic manifestation was transaminitis (57.5%) followed by acalculous cholecystitis (21%) & acute pancreatitis (13.9%). Two patients had features of sub-acute intestinal obstruction. Twenty nine patients presented with neurological manifestations (15- acute encephalitis, 5- meningitis, intracranial bleed-5, infect-1, 2- hypokalemic paralysis & 1 acute transverse myelitis). 40.6% of patients presenting with gastro hepatic manifestations had platelet count < 20,000/mm^3 vs 98% with other system involvement which is statistically significant (p value, 0.0001).

Conclusion: Expanded dengue syndrome may be under recognised & un reported. Atypical presentation should prompt us to investigate for dengue especially during ongoing epidemics.
further improving our services and active intervention and continuous monitoring whenever required.

**Materials and Methods:** A cross sectional study performed at Rajiv Gandhi Institute of Medical sciences, Ongole, AP, from 01-01-2018 to 31-01-2018. This study includes 260 deaths among 2000 patients admitted in ICU of our institute during this duration. We gathered data at various levels like clinical evaluation and investigations analysed by using defined scores like APACHE II, SAPS II and SOFA scores.

**Methods:** The study included 120 cases admitted in the ICU meeting the diagnostic criteria for severe sepsis and septic shock during the first 24 hours of admission. APACHE II, SAPS II and SOFA indices were calculated at baseline to assess the severity of illness. The cut-off point to predict mortality was calculated by plotting the ROC curve.

**Results:** A total of 147 patients were analysed. All three scores were significant in predicting the mortality of the patients (p<0.05). SAPS II has highest sensitivity and APACHE II has highest specificity. All 3 scores were significant (p<0.05) in predicting mortality of the patients, but SAPS II has the most area under the ROC curve (p value -0.047) with odds ratio of 1.449.

**Conclusion:** All the three scoring systems can be used in prediction of sepsis and septic shock. SAPS II scoring system has better mortality predicting ability than APACHE II and SOFA scoring systems.

**Evaluation and Management of Neutropenic Sepsis**

Vishnu R Nair, Geetha Philips, Arun George, Arun Wilson

**Aim:** Neutropenic sepsis remains a topic of great significance due to the challenges in the evaluation, management and an associated high mortality which is up to 55 times higher than a normal healthy non septic patient. The study was conducted to develop a simple, effective and economical method to screen for neutropenic sepsis.

**Methods:** Patients with neutropenic sepsis have a poor prognosis. Management can be broadly divided into initial septic crisis phase (assessed by APACHE and SOFA scores) and second phase until discharge from the ICU. In the recovery phase persistent organ damage and higher persistent C-reactive protein levels are associated with a poor outcome along with ineffective initial antibiotic therapy, fungal infections, and detection of multidrug resistant bacterial infections.

**Conclusion:** This case report describes the problems and challenges of managing an emergency scenario was instrumental in covering all aspects of a complicated and challenging case of neutropenic sepsis.

**Prognostic Accuracy of the SOFA Score, SIRS Criteria and qSOFA Score for In-Hospital Mortality Among Adults with Suspected Infection**

Piyush Dhawan, Minakshi Dhar, Prasan Kumar Panda, Pratima Gupta, Farhanul Huda, Anupama Bahadar

**Aim:** The primary objectives were to determine the leading causes of in-hospital mortality and morbidity. Mortality prediction systems have been introduced as tools for assessing the performance of ICUS and help in patient outcome prediction and facilitate quality assessment of an individual.

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Clinical Profile and Hospital Course of Patients of Sepsis with Hypotension with Normal Serum Lactate Level at Presentation
Suhas Kumar, Ashish Bhalla, Navneet Sharma, Sanjay Jain
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Introduction: Normal lactate levels during hypotension induced by infective insult are of great clinical and physiological interest. Our aim was to describe the clinical, hemodynamic, laboratory profile; hospital course and outcome in these patients presenting in emergency medical services.

Material and Methods: We conducted a retrospective observational study in 147 patients with normal lactate levels during hypotension induced by infective insult undergoing resuscitation in emergency medical services. Clinical, hemodynamic, laboratory profile; hospital course and outcome were registered in a standardised proforma. Various parameters among patients with and without hyperlactatemia at presentation were compared.

Results: 147 patients fulfilling inclusion criteria formed the study cohort. Mean age of patients was 45.29±16.04 years. Most common source of infection leading to hospital admission was respiratory tract. Mean Acute Physiology And Chronic Health Evaluation II score at admission was 22.9±5.69. Patients without hyperlactatemia had lower rates of renal replacement therapy requirement, lower serum fibrinogen, lower baseline central venous oxygen saturation level and lower disease severity scores at presentation. Hospital mortality was also lower in this group.

Conclusion: Sepsis-induced hypotension without hyperlactatemia at presentation is associated with less organ dysfunction and a lower hospital mortality risk.

Role of Central Venous Oxygen Saturation in Prognostication of Patients with Severe Sepsis and Septic Shock in Emergency Medical Services
Suhas Kumar, Gauri Jangpangi, Ashish Bhalla, Navneet Sharma
Department of Internal Medicine, Postgraduate Institute of Medical Education and Research, Chandigarh

Introduction: All the components of early goal-directed therapy especially central venous oxygen saturation (ScvO2) as one of the endpoints of resuscitation may not have mortality benefit. We aimed to find out mean baseline ScvO2 in a cohort of patients presenting with severe sepsis/septic shock and its prognostic significance if any.

Material and Methods: This was a single-center prospective observational study conducted in two hundred patients with severe sepsis/septic shock in the emergency medical services. Measurement of ScvO2 was performed as soon as possible by sampling blood from the superior vena cava through the central venous catheter.

Results: Mean age of patients was 46.7±17.64 years. There were 114 (57%) male patients. Mean ScvO2 at baseline was 65.9±20.70%. Based on initial ScvO2, values, 104 (52%) patients had the lower ScvO2 level, levelled as the hypoxic group. Sixty-five (32.5%) patients had ScvO2 level in between 70% and 80% and remaining 31 (15.5%) patients had high ScvO2 levelled as the hyperoxic group. Sixty-six (35%) patients had in-hospital mortality. Out of these, 22 (26.9%) patients had hospital mortality. Twenty-five (38.5%) patients had hospital mortality. Among patients in the hyperoxic group, mean serum lactate value at baseline in non-survivors was significantly higher as compared to the mean value of 2.87±1.55 mmol/L in survivors. Hyperoxia group categorised on the basis of baseline ScvO2 had higher hospital mortality though it was not statistically significant.

Conclusion: Mean baseline ScvO2 was lower in our study cohort. Importantly, higher mortality in the hypoxic group with higher serum lactate emphasizes the point that ScvO2 value should be analysed along with serum lactate levels as complimentary resuscitation end points.

A Study of Stress Hyperglycaemia and Hyperlactataemia at Admission as Prognostic Indicator in Non Diabetic Critically Ill Patients Admitted in ICU in a Tertiary Care Hospital
Keshava Chandra Thejaswi YS, Srinivasa KV
Ambedkar Medical College and Hospital, Bengaluru, Karnataka

Introduction & Objectives: Critically ill patients often have a lot of triggers which can contribute to myocardial damage and thereby onset of arrhythmia, which contributes to significant morbidity and mortality.

Materials and Methods: A prospective cohort study is conducted among 260 critically ill medical patients admitted in medical intensive care unit of Amal Institute of Medical Sciences, Thrissur, over a 12 month period. The study was conducted on critically ill patients. Arrhythmia warning score 5 or above were categorized into two groups with low and high levels of troponin, (130 in each group. The comparison of incidence of new arrhythmia between those two groups were estimated during the ICU stay.

Results: A total of 260 patients were enrolled in the study with 130 each in low and high levels of troponin group. It was found that the total incidence of new arrhythmia among 260 critically ill patients was 7% (22%). Also among the 76 who developed arrhythmia 63 (82.8%) were in the group with high levels of troponin. And among the different types of arrhythmia, Atrial Fibrillation with a frequency of 43 (56.5%) was the commonest form of arrhythmia.

Conclusion: The incidence of new on set arrhythmia was high among critically ill patients who had high levels of troponin compared to those with low values of troponin. Atrial fibrillation was the most common arrhythmia in critically ill patients in ICU. Other risk factors for arrhythmia are the presence of sepsis, acidosis, diabetes, severity of critical illness and prolonged ICU stay.
Similarly changes in circulating serum lactate levels are correlated with the severity of morbidity and mortality. This study emphasizes on the fact that by identifying stress hyperglycemia and hyperlactatemia in critically ill patients and implementing early nutritional practices in two groups can be differentiated is 5.7, with sensitivity of 76.5% and specificity of 68.7%. Both were significant with p-value being 0.83 and 0.94 respectively. Hospital survivors and non survivors comparison showed mean difference in GRBS value of -2.14 with p-value of <0.001 which also is a significant difference in duration of hospital stay with mean age 50.1±17.9 years old. Both were significant with p-value <0.001.

Comparison of GRBS/RBS as well as S.Lactate showed increasing in value with APACHE II score. Both values showed 90% accuracy in predicting the APACHE II score. GRBS/RBS value > 140 and <140mg/dl showed significant difference in duration of hospital stay with mean difference of -2.48. S.Lactate showed mean difference of -2.78. Both were significant with p-value <0.001.

Conclusion: Stress hyperglycemia as well as S.Lactate level at admissions can be used as prognostic indicator in critically ill patients admitted to hospital with good accuracy compared to APACHE II score. It can predict the APACHE II score, duration of hospital stay (morbidity) and mortality accurately.

Hospital Based Descriptive Study of Hyponatremia in Elderly Patients
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1PG, General Medicine, 2HOD and Professor, JIMM Medical College, Davangere, Karnataka

Introduction, Aims & Objectives: Hyponatremia is a common electrolyte disturbance in the hospitalized critically ill patient. Aim is to study clinical feature and etiology of hyponatremia in elderly hospitalized patients. An additional objective is to classify severity of hyponatremia in hospitalized elderly and to correlate the outcomes following treatment.

Materials and Methods: We conducted a cross-sectional study on 120 adult patients with common electrolyte disturbances in the hospitalized elderly patients admitted to Bapuj Hospital from October 2017 to September 2018. All elderly patients being admitted as emergency were screened for hyponatremia and 100 elderly hospitalized patients with severe hyponatremia were included in study, these patients were investigated as per protocol. Hypoancaemia was defined as per standardized regimen.

Results: 100 patients with severe hyponatremia were studied. The common CNS symptoms were drowsiness, lethargy, confusion, seizures and unresponsiveness. There was female dominance of cases (55%). The commonest condition affected was Hypertension (69) and diabetes mellitus (51). Females tolerated hyponatremia better than males with mortality of 9.9% in females and 33.3% in males (p=0.0026). In all 20 patients succumbed to their primary illness, with a possible contribution attributable to hyponatremia or its treatment. The common cause of Hyponatremia was SIADH (30) and drugs (24) of which diuretics is a major chunk.

Conclusion: In general hyponatremia is common in females and they seem to better tolerate it than their male counterparts. Early detection, strict adherence to treatment protocol is required. Diuretics should be used with caution in elderly.

Effect of implementation of protocol based nutrition therapy in medical ICU
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AIMS, New Delhi

Introduction and objectives: Critical illness is a catabolic state with increased nutritional requirements. This study aimed to examine the ongoing nutritional practices and effect and implementation of protocol-based practices in medical ICU of a tertiary care center.

Materials and Methods: This was a quasi-experimental (pre-test, post-test) study design conducted in three phases. First, pre-intervention phase (8months) identified ongoing practices of nutrition therapy. Second, intervention phase (4months) created awareness regarding protein and calorie rich nutrition therapy. In third, post-intervention phase (8months), effect of implementation of protocol on end points were assessed. Both the groups were comparable in terms of sex, age, infection sites and pathogens.

Results: 50 patients were recruited in each phases including 66% male in pre-intervention group and 36% female in post-intervention phase with mean age 50.1±17.9 years old. 46.8±14.5 years old, mean APACHE 2 score of 19.8±8.1 and 20.6±8.0 respectively. Modified NUTRIC score was 4.6±1.19 in pre-intervention and post-intervention phase respectively. Modified NUTRIC score was high (≥5) in 64% patients who were pregnant, or with intestinal obstruction or ideas or contraindication to nasogastric tube were excluded.

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Conclusion: There was no significant difference between two phases in ICU stay, hospital stay, 28day mortality, ICU mortality and in-hospital mortality.

Discriminatory Diagnostic of Procalcitonin in Discriminating Gram Negative and Gram Positive Bacteria in Sepsis
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Introduction: Sepsis is one of the leading causes of death in the world. Procalcitonin (PCT) is a proven marker for sepsis but its role in differentiating gram negative (GNB) from gram positive (GPG) is still under investigation.

Objective: To determine the diagnostic accuracy of (PCT) in discriminating GNB from GPG in sepsis and also to determine the relationship of PCT levels with different infection sites and pathogens.

Materials and Methods: It was a prospective study conducted at a Tertiary care Hospital, India from 2016 to 2018. PCT levels induced by GNB, GPG and fungal organisms were compared. A receiver operating characteristic (ROC) curve was used to determine a PCT cut off value for differentiating GNB and GPG. PCT levels for different sites and pathogens were also compared.

Results: Among 119 samples, 67 were positive for GNB (56.3%), 38 were positive for GPG (31.9%) and 14 were positive for fungal pathogens (11.8%). It revealed higher levels of PCT for Acinetobacter baumanni compared to Klebsiella pneumonia, E coli, Pseudomonas aeroginosa and others (GNBs). Staphylococcus aureus were noted for higher PCT levels than other sites of infection.

Conclusion: Procalcitonin can be used as tool to differentiate GNB and GPG infection, as well as between different bacterial species and site of infection.
Thyroid Function Test and its Prognostic Significance in Critically Ill Patients in and Comparison with SOFA Score
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Introduction & Objectives: To analyze the prognostic rather than diagnostic efficacy of thyroid function test in unselected critically ill patients and compare the prognostic efficacy of free T3, free T4, TSH, T3 and T4 with SOFAS score in predicting mortality.

Materials & Methods: We studied 338 unselected patients admitted in the intensive care unit and measured their thyroid function test, routine biochemical parameters along with SOFAS scores and assessed their individual and combined efficacy in predicting mortality.

Results: There were 200 survivors and 138 non-survivors, the survivors had lower free T3 value and lower levels of sepsis and hospital mortality were evaluated. This was a prospective observational study.

Results:

- Of 76 patients with sepsis, 12 (15%) with CLD were included in the analysis. There was no statistically significant difference in the mean absolute lactate (80) in survivors with CLD (2.66 ± 2.28) compared to CLD non-survivors (1.00 ± 0.78). In CLD survivors, the mean lactate clearance at 6h of survivors (26.19 ± 24.10) was significantly higher than in non-survivors in CLD (3.54 ± 8.60) (p-value 0.026).

In patients with lower absolute lactate values, LC in within 6h, 12h and 24h of survivors were significantly higher than that of non-survivors.

Conclusion: LC at 6h and 24h may be useful for predicting outcomes in patients with sepsis in CLD.

A Study of Hypocalcemia in Critically Ill Patients in Medical Intensive Care
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Introduction: Calcium is one of the crucial ions that has an immense role in maintaining biological homeostasis. Any critical illness may trigger an acute phase response which is associated with severe metabolic derangements. Various studies have shown that hypocalcemia is a common electrolyte imbalance in ICU patients and is associated with adverse prognostic outcomes.

Objectives: To study the frequency of hypocalcemia, its correlation with disease severity and its impact on outcome in terms of length of ICU stay and Mortality(if any) in the critically ill patients.

Materials: This was a hospital based prospective observational study on 207 Medical ICU patients during 1-year period. Ionized calcium values were obtained from blood gas analysis on whole arterial blood and on admission APACHE II Score was calculated for all patients. Outcome data was compared using SPSS version 22.0 software.

Results:

- In our study, 105 patients (57.72%) were hypocalcemic. The severely hypocalcemic group had higher mean APACHE II Score when compared with the normocalcemic group (21.68 ± 2.60 vs 7.02 ± 3.05, p = 0.05), had longer stay in the ICU than the normocalcemic group (46.6 ± 4.48 days vs 4 ± 5.45 days, p = 0.05) and had higher mortality rate (52.8% vs 6.6%, p < 0.001).

The mean ionized calcium of the survivors and non-survivors in our study was 1.9 ± 0.23 mmol/L and 1.7 ± 0.23 mmol/L respectively and the difference was statistically significant (p < 0.05).

Hypocalcemia was present highest among the septic patients (91.43%).

Conclusion: Hypocalcemia is a frequent occurrence in ICU patients and such patients has a longer ICU stay with a higher mortality rate.

The Association between Lactate Clearance and Mortality in Sepsis in Chronic Liver Disease
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Introduction & Objectives: Serum absolute lactate (i.e., lactate values at the time of diagnosis) and lactate clearance (LC) during initial resuscitation in sepsis have been described as a useful prognostic marker. However, the usefulness of the same in patients with Chronic Liver Disease (CLD) is doubtful, as hepatic dysfunction may impact lactate elimination.

Materials and methods: Patients who fulfilled the criteria of sepsis were included in the study. CLD was diagnosed on the basis of clinical, laboratory and radiological data. The relationships between absolute lactate, LC measured within 6, 12 and 24 h after diagnosis of sepsis and hospital mortality were evaluated. This was a prospective observational study.

Results: Out of the 150 patients, 111 survived and 39 died. Of these 150 patients, 29 patients were intubated. Of the 121 patients belonging to the first two groups – 82 patients had a GCS of 9 and above; 39 patients had a GCS of 8 and below. 17 patients out of 82 died in the group of GCS 9 and above (20.73%).

10 patients out of 39 died in the group of GCS 8 and below (25.6%).

12 patients out of 29 died in the intubated group (41.38%).

Of the 150 patients, 88 patients had lactate levels less than 2–16 of the 88 patients had an unfavorable outcome (18.18%). Of the 62 patients with lactate levels of more than 2 on admission, 23 patients had an unfavorable outcome (37.1%). Those results were further analysed separately in the three subgroups.

Conclusion: Patients with lower lactate levels and higher GCS had a more favorable outcome.

Evaluation of the Association between Parenteral Noradrenaline and Arterial Lactate Levels in the Critically Ill Patients with Septic Shock
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Introduction & Objectives: This study is designed to evaluate the correlation between Noradrenaline injection and arterial lactate levels in critically ill patients with sepsis and without sepsis.

Materials and Methods: This is a prospective observational study including heterogeneous group of patients of age > 18 years with sepsis and alternate diagnosis in a single centre between June1 to July 2018. In this cohort, we measured arterial lactate concentration at presentation (t0) and at 2 hours after initiation of Noradrenaline. Lactate concentration was calculated and we evaluated the correlation between Noradrenaline and serum lactate clearance in critically ill patients with sepsis and without sepsis.

Results: 50 patients (38 Males and 12 Females) in the Medical ICU receiving Noradrenaline were enrolled for the study. The mean age was observed to be 62 ± 13 years. The mean lactate level at 2 hours was 3.02 ± 3.36 and the average 2-hour lactate clearance was 2.5 ± 2.1. Among total 50 patients 27 (54%) had sepsis and 23 (46%) had alternate diagnosis among the 27 septic patients, 22 (81%) patient’s lactate was cleared at 2 hours when compared to others with alternate diagnosis to 12 (52%). The results were statistically significant (p value=0.027).

Conclusion: The lactate clearance at 2 hours is a more reliable prognostic indicator than the initial lactate value at the time of presentation, in septic shock with...
hyperlactataemia, following early Noradrenaline injection. In non-septic patients (hypovolemic shock), we observed a ‘delayed’ lactate clearance.

Gastroenterology

A GIST of an unprovoked deep venous thrombosis
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Mrs P.P., a 43 years old patient, was admitted with 4.3 episodes of blood stained vomitting for 2 days associated with dyspea and pedal edema for past 2 days. Patient has been having easy fatigability for past 2 months ever since she had a similar UGI bleed episode 3 months back. Lowest platelet count was numerically higher in Doxycycline treated patients 4200/cmm vs 3000/cmm. Lowest TLC does not have any difference. There was no difference in new appearance of symptoms and other signs. Importantly patient in doxy treated group were discharged almost 2 days prior (1.56±.39) to non treated patients leading to a significant cost benefit.

Conclusion: Doxycycline reduces the inflammatory manifestation of deep venous bleeding leading to less extra-vascular collection of fluids and less attendant platelet count. Moreover Doxycycline treated patients were discharged early leading to a significant cost benefit.

Superior Pancreaticoduodenal Artery Aneurysm
Rupture with Celiac Trunk Stenosis: A Rare Cause of Acute Abdomen
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Introduction: Pancreaticoduodenal artery aneurysm (PDA) is a rare vascular disease that accounts for 2% of all splanchic aneurysms. It is usually associated with celiac trunk stenosis due to atherosclerotic disease or fibromuscular dysplasia or compression by median arcuate ligament. We came across a very few similar cases reported in the literature.

Case report: An elderly male presented with acute onset abdominal pain of two days duration. He was a diabetic, hypertensive and had coronary artery disease for 10 years. On admission examination revealed tenderness and rigidity over right lumbar and umbilical areas. Blood tests showed serial drop in hemoglobin levels. CECT abdomen showed large pseudoaneurysm arising from superior pancreaticoduodenal artery abutting the C-loop of duodenum. There was proximal celiac artery stenosis due to compression by median arcuate ligament. Gastric varices were also noted. He was treated with endovascular embolisation.

Discussion: Hemodynamic alterations in the pancreatoduodenal arterial system may lead to celiac trunk stenosis with pseudoaneurysm as a result in PDA. Local inflammatory process also causes pseudoaneurysm formation. Our patient had both median vascular syndrome and duplex ultrasound resulting in PDA. Endovascular embolisation emerged as the preferred treatment for various vascular malformations in the recent times.

Conclusion: PDA is a rare and fatal cause of acute abdominal pain. Our report attempts to bring the case illustration and the latest non-surgical management option available for the management of PDA to the notice of medical fraternity.

A Study of Cardiac Dysfunction in Patients with Chronic Liver Disease
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Introduction: Chronic liver disease (CLD) is a common cause of mortality and morbidity worldwide. This has various pathological effects on various systems in the body including the cardiovascular system which usually unnoticeable. In majority of cases of chronic liver disease, cardiovascular complications develop as subclinical condition which manifests only during stressful situations. Hence early detection of cirrhotic cardiomyopathy early 2D-ECHO in CLD patients helps in reducing the morbidity and mortality.

Objectives of the study:
1. To identify the cardiac dysfunction among patients with CLD by echocardiography.
2. To correlate the cardiac dysfunction with the severity of the CLD.

Materials and Methods: 100 cases of CLD were included in the study. All the cases were subjected to cardiac evaluation by ECG and Echocardiography. Serum pro-BNP levels were done for selected patients. Severity of the liver disease was calculated by using Child-Pugh severity score. Cardiac abnormalities in particular will be noted and is correlated with the severity of the liver disease.

Results: Out of 100 patients studied, 80% of the patients had hepatic decompensation. Patients had abnormal ECG finding, 40% of them had QT prolongation and is related to the severity of liver disease. 60% of the total patients had cardiac abnormalities. Majority of the patients in patients with significant cardiac dysfunction. Majority of patients, in study were Child Pugh C. 46% of the patients had normal echocardiographic finding, most common abnormal finding was diastolic dysfunction (43%) and is positively correlated with severity of liver disease.

Conclusion: In CLD patients most common Echocardiographic finding was diastolic dysfunction which has strong correlation with the severity of the liver disease.

Endoscopic findings in persistent dyspepsia in secondary care hospital setting in north Kashmir
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Introduction: Dyspepsia is a common clinical problem and has a great impact on the patient’s quality of life. More than half of patients presenting with dyspepsia have no detectable lesion for their symptoms. The common organic causes of dyspepsia include peptic ulcer, esophagitis and gastroduodenal disease. The diagnostic test of choice is endoscopy. Age specific thresholds to trigger endoscopic evaluation may differ by gender, availability of resources and regional disease specific risks. The aim of the study was to determine the prevalence of significant endoscopic lesions in patients presenting with dyspepsia.

Methods: This was a retrospective study. Data on patients presenting with dyspepsia and scheduled for upper gastrointestinal (UGI) endoscopy between January 2011 and December 2016 was collected.

Results: Nine thousand five hundred and twenty five patients with persistent dyspepsia were assessed by Upper Gastrointestinal (UGI) endoscopy. Mean age of the patients was 41 years. Endoscopy revealed normal findings or miscellaneous irrelevant findings in 6967 (73.1%). Significant endoscopic findings were diagnosed in 2058 (22.8%). These were peptic ulcer disease in 943 patients (5.1%), esophagitis in 560 (5.9%), erosive Gastroeudotubin in 1069 (11.2%), varices in 40 (0.4%) and UGI malignancy in 3 (9.2%).

Conclusions: The diagnostic endoscopy of persistent dyspepsia in our setting showed a predominance of gastric disease. Every 4th patient with persistent dyspepsia had organic lesions whereas UGI malignancy was an uncommon finding. The most frequent signiﬁcant endoscopic ﬁnding was peptic ulcer disease. Patients with recent onset of dyspepsia who are in the age group at risk of gastric malignancy should undergo early endoscopy. UGI endoscopy is simple procedure that can be undertaken for early diagnosis of benign as well as malignant lesions in patient presenting with dyspepsia.

Clinical Profile of Patients with Upper Gastrointestinal Bleed and Comparison of Glasgow & Rockal Score in Predicting Mortality
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Introduction: Upper gastrointestinal bleeding is a life threatening complication which leads to mortality rate of 15% and a rebleeding rate of 30%. Because of that accurate management of this event with an aim to decrease adverse consequence is essential. Appropriate maintenance of hemodynamic stability is the first main approach to prevent the complication. After stabilization endoscopy and further intervention will be done.

Aim: To study the clinical profile of patients presenting with upper GI bleed.

To compare the efficacy of Glasgow Blatchford and Rockall scoring system in assessing mortality of patients with upper GI bleed.

Methods: It is an observational study conducted in Amla institute of medical science from July 2016 to Aug 2017, that evaluated 112 patients presenting with upper GI bleed. Followed up the patient for 1 month and assessed the mortality and compared with Glasgow and Rockall score.

Results: In our study group of 112 patients with upper GI bleed 79.5% were males and rest were females. 77.7% presented with hematemesis. Esophageal varices 39.3%, Mallory Weiss 18.8%, gastric varices 6.3%, peptic ulcer 4.5%, GAVE 3.6%, 2.7% Rebleed occurred in 7.1% and ICU required 74.1%. GBS score of 12.0± 3.54 required ICU admission, p value of 0.0001.

Conclusion: Our study concludes that GBS system is better in predicting ICU admission and mortality rate.

A Comparative Study between Right Liver Lobe Diameter/Albumin Ratio and Plateletcount/Splenic Diameter as a Predictor of Esophageal Varices in Cirrhosis Patients.
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Introduction and Objectives: The study was conducted in hospitals attached to Bangalore Medical College and research institute and data was collected between November 2016 - July 2018. The objective of the study is to compare right liver lobe diameter and serum albumin ratio and platelet count to spleen diameter ratio with grading of esophageal varices.

Methodology: 100 cases of chronic liver disease were included in the study. Further all the patients were subjected to ultra-sound liver and spleen for right liver lobe diameter(in cms) was measured in mid-clavicular line and splenic diameter was measured. Serum albumin(in g/l) and platelet was measured and the parameters. The ratio was calculated and is correlated with grading of esophageal varices.

Results: Out of 100 patients studied 87% were males and majority belonged to 40-49 yrs. 83% of the patient had alcohol as the etiology of cirrhosis. Platelet count/Splenic diameter ratio was increased and right liver lobe diameter/albumin was increased in patients with esophageal varices. The sensitivity of Platelet count/splenic diameter in

Role of Doxycycline in patients with Dengue Fever
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Introduction & Objective: Dengue fever is transmitted by Aedes aegypti and many parts of India are mainly in the post-rainy season. Clinical features of Dengue fever varies from simple febrile illness to extensive hemorrhagic syndrome. There are many clinical features that suggest clinical presentation of Dengue fever particularly by inhibiting cytokine. It also has a strong viral virus-in-vitro thought to affect the viruses in vivo. This study was aimed to find any clinical benefit of Doxycycline in Dengue fever.

Methodology: During the last outbreak of dengue fever in 2017, we applied this concept of Doxycycline in 17 randomly assigned patients presented with confirmed dengue fever without any complication. They were given initial two days of Inj Doxycycline bid followed by 3 days of oral tablet. Patients were managed according to prevailing guidelines of NVPDCP. The course of illness of these patients was compared on a parallel group of 15 patients having comparable parameters.

Results: The appearance of ascites and pleural effusion was significantly less in Doxycycline treated group vs 67% (p=0.018). Two episode of severe pleural effusion leading to respiratory distress occurred in control group. Bleeding episodes were also less found in Doxycycline treated patients 4200/cmm vs 3000/cmm. Lowest TLC does not have any difference. There was no difference in new appearance of symptoms and other signs. Importantly patient in doxy treated group were discharged almost 2 days prior (1.56±.39) to non treated patients leading to a significant cost benefit.

Conclusion: Doxycycline reduces the inflammatory manifestation of dengue fever leading to less extra-vascular collection of fluids and less attendant platelet count. Moreover Doxycycline treated patients were discharged early leading to a significant cost benefit.

A Comparative Study between Right Liver Lobe Diameter/Albumin Ratio and Plateletcount/Splenic Diameter as a Predictor of Esophageal Varices in Cirrhosis Patients.
predicting esophageal varices was 91% and specificity of 87% for detecting esophageal varices for a cut off value of 528.8. right liver lobe diameter/albumin study has sensitivity of 65.9% and specificity of 92.1% in predicting esophageal varices for a cut off value of 5.083.

Conclusion: There is a good correlation between right liver lobe diameter/albumin ratio and platelet count/ splenic diameter and esophageal varices and grades. Further studies can reveal a large number of patients for confirmation of these findings.

Capsule Endoscopy: A Non-Invasive Tool for Small Bowel Evaluation

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Introduction: Capsule endoscopy is a diagnostic modality used for visualization of the small bowel. There is a myriad of indications meriting the need for capsule endoscopy. We present an audit of 50 cases on whom capsule endoscopy was done.

Methodology: Fifty cases who underwent capsule endoscopy were analysed. Of the 50 patients, males were 29, females were 21. Age of patients ranged between 34 to 76.

The most common indications for capsule endoscopy was obscure GI bleed followed by chronic pain abdomen. Other indications were chronic diarrhea, active GI bleed and anemia.

Patients were allowed liquids on the previous night. Bowel was prepared by administering 2 L polyethylene- glycol-based solution. The next morning, patients swallowed the capsule between 09:00 and 10:00 am. They were nil per oral for subsequent 4 hours.

The images were interpreted by the gastrointestinal consultant.

Results: Small bowel ulcerations were the most common finding mostly involving jejunum.

Two of the patients capsules revealed diffuse blunting of the villi which was suggestive of coeliac disease.

Capsule revealed AV malformations in two patients.

Crohn’s disease was diagnosed in four cases.

One study revealed an ectopic varix in proximal jejunum which further showed portal hypertensive enteroclyathy.

A patient with chronic diarrhea revealed diffuse nodularity in the terminal ileum.

A case of hookworm infestation was detected.

The results were normal in 17 cases.

Discussion: Small bowel lesions are difficult to diagnose and are not easily accessible for imaging because of anatomical inaccessibility of this region by conventional diagnostic modalities.

Conclusion: In our study, capsule endoscopy has shown to be useful in diagnosing small bowel diseases. It has been shown to be safe and well tolerated by patients.

PUO with secondary amnorrhoea, where smile gave the diagnosis: Wilson’s disease: case study in a tertiary care hospital, North Bihar

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Introduction: Wilson’s disease is an autosomal recessive disorder caused by mutations in the ATP7B gene which encodes a membrane-bound, copper transporting ATPase. Wilson’s disease was first reported by S. A. Kinnier Wilson in 1912 but it was not until 1968 that the first case was reported. Owing to improved diagnostic and imaging technologies more cases are being diagnosed nowadays and early recognition is very important as this is a multi system disorder and curable with early therapy if instituted at an early stage.

Report of the Case: A 15 year old female presented with complaints of fever not responding to treatment for 12 months. On presentation to ENT services she complained of secondary amenorrhoea for 1 year. Clinical examination revealed pallor, and an abnormal dystmic smile. A radiographic examination revealed hepatosplenomegaly with occasional athetosis like movements of extremities and abnormal behaviour to situation. Stool haemagglutination test was done and was positive for toxoplasmosis. The symptoms are suggestive of Wilson’s disease. After 15 days of PST, the patient was not showing any significant improvement. Endoscopy revealed numerous nodules in terminal parts of D2 and D3. Anti TTG levels were normal. The biopsy showed multiple intraepithelial lymphocytes and patchy lymphoplasmacytic infiltrates without any evidence of granuloma or lymphoma. The patient was initially advised on gluten free diet. Further investigations were done and the patient is under regular follow up.

Discussion: Clinical scenario with features of CLD with minimal abnormal body movements with an abnormal behaviour response to situations and secondary amnorrhoea and suspicion which were corroborated by laboratory findings of increased urine copper and decreased serum caeruloplasmin. MRI brain revealed bathypnogonitis and hyperintensity in both thalamus. Patient was started on therapy and referred to higher centre for genetic evaluation.

Conclusion: Secondary amnorrhoea with mild behavioural abnormalities and features suggestive of CLD in females should raise suspicion about Wilson’s disease because the disease can be missed without a high index of suspicion which can lead to uninhibited disease progression and can prove fatal but with timely therapy, long productive life is achievable. Increased awareness is therefore necessary amongst health care personnel.

Clinico-Bacteriological Profile of Cirrhotic Patients in a Tertiary Care Centre in South India – A Cross Sectional Study

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Introduction: Bacterial infections accounts for major morbidity and mortality (30-50%) in cirrhosis. Various factors contributing to immunological alterations in cirrhotic patients are

1. Immunodeficiency
2. Reticulo endothelial dysfunction
3. Monocyte dysfunction
4. Reduction in compliment levels

Objectives: To find

1. Most common infections
2. Reticulo endothelial dysfunction
3. Most common organisms
4. Most sensitive antibiotics
5. Prevalence of different infections in cirrhotic patients.

Methodology: A Cross sectional study conducted in 194 patients, over a period of 12 months, having liver cirrhosis admitted with bacterial infections. The data on clinical symptoms, previous co morbidities, recurrence of infections and use of any antibiotic prophylaxis were collected using a structured questionnaire.

Detailed history and thorough clinical examination were done. Relevant investigations were done to confirm bacterial infections. Cultures send for isolation of organism and to find the sensitivity to different antibiotics. Method used for statistical analysis was Chi-Square test

Results: Among 194 patients having liver cirrhosis with bacterial infection, the most common infection was Urinary Tract Infection (37.3%). The order of prevalence is that UTL, Pneumonia (24.2%) and Cellulitis (16.6%). The most common organism is E Coli. The most sensitive antibiotic was found to be Cephalosporins.

Conclusion: Patients with cirrhosis are immunocompromised and have increased susceptibility for bacterial infections. This study aims early diagnosis and proper antibiotic treatment to bring down the mortality. It also helps to select the most effective prophylactic antibiotics and hence decreases the development of multi drug resistance.

Evaluation of Procalcitonin as an early predictor of severity in acute pancreatitis

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Introduction and Objectives: We need an ideal test which should be inexpensive, routinely available, highly accurate and which can be used to predict severity in acute pancreatitis. Procalcitonin increases in inflammatory situations and is a useful predictor of complications. We plan to use procalcitonin as an early marker of development of complications in acute Pancreatitis.

Material and Methods: Prospective observational hospital based study involving patient’s of acute pancreatitis diagnosed on the basis of diagnostic criteria of American College of Gastroenterology. Procalcitonin was measured preoperatively and those who met the inclusion criteria were enrolled. Blood samples for PCT with other relevant investigations were done and level were correlated with development of any complications, CTSC, score, use of antibiotics, recurrence and death.

Results: A total of 60 patients were enrolled. The mean value of PCT found to be 5.7±2.07ng/ml with high CTSS value (> 4.7±3.02ng/ml and also had good correlation coefficient (r=0.484, p<0.00). PCT also found to be useful in detecting complications (r=0.321, p=0.001) with mean value of PCT 2.31±2.39ng/ml and in cardiovascular complication (r=0.308, p=0.001) with mean value of PCT 2.33±2.39ng/ml. The correlation coefficient was also seen between PCT and antibiotic use(r=0.19, p=0.005). In patients who had recurrence, mean value of PCT was 1.52±2.07ng/ml with good correlation coefficient (r=0.043, p=0.03). Mean value of PCT was 4.2±3.74ng/ml in participants who died and also had good correlation coefficient (r=0.262, p=0.08).

Conclusions: Procalcitonin has shown promising results as an early marker of development of complication as it is also a simple, inexpensive, routinely available and easy to use test. It should be used as an early predictor of severity in acute pancreatitis to reduce mortality by early intervention.

Lemmey's Syndrome - A rare cause of Obstructive Jaundice

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Lemmey’s syndrome was first discovered in 1934 by Mr. Lemmel, described it as a duodenal diverticulum causing obstruction to common bile duct (CBD) or dysfunction of sphincter of Oddi leading to obstructive jaundice or cholangitis. Most common complication of common duodenal diverticuli are in the second part of duodenum, periampullary in origin (PAD). A 95 year old male, suffering from jaundice was admitted. He had jaundice for the last 3 months prior to presentation to ER and also had complained of fever not responding to treatment for 3 months. Patient was referred to higher centre for genetic evaluation. A 15 year old female presented with complaints of diffuse pain abdomen and multiple episodes of vomiting remarkably decreased. Further diagnostic tests corroborated the findings of Wilson’s disease. Patient was started on therapy and referred to higher centre for genetic evaluation.

Conclusion: A 12 years old female, presented with complaints of diffuse pain abdomen and multiple episodes of nausea and vomiting, onset after 30 mins to 1 hour after intake of food since 6 months. CECT abdomen revealed multiple nercotic intraabdominal lymph nodes (1.6 cms) in mesocolon and par-aortic, perihepatice and juxta-intestinal lymph nodes; with abrupt luminal narrowing noted at 3rd part of duodenum with mural wall thickness. Ultrasound revealed numerous nodules in terminal parts of D2 and D3. Antti TTG levels were normal. The biopsy showed multiple intraepithelial lymphocytes and patchy lymphoplasmacytic infiltrates without any evidence of granuloma or lymphoma. The patient was initially advised on gluten free diet. Further investigations were done and the patient is under regular follow up. 3 months of PST, the patient was not showing any significant improvement. Endoscopy revealed numerous nodules in terminal parts of D2 and D3. Anti TTG levels were normal. The biopsy showed multiple intraepithelial lymphocytes and patchy lymphoplasmacytic infiltrates without any evidence of granuloma or lymphoma. The patient was initially advised on gluten free diet. Further investigations were done and the patient is under regular follow up. 14 days. ATT trial was given and the patients improve with episodes of vomiting remarkably decreased.

Conclusion: Early diagnosis and initiation of antituberculous therapy is quintessential to prevent morbidity and mortality. Involvement of mesenteric lymph
nodes is rarely encountered in cell disease. Abdominal tuberculosis, nodal narrowing with enlarged lymphadenopathy is highly probable. Abdominal imaging is quite essential for evaluation in such cases.

A Case Series of Hypertriglyceridemia induced Acute Pancreatitis managed with Insulin

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Introduction & Objectives: Hypertriglyceridemia may be responsible for 1-7% of all cases of Acute Pancreatitis and it rarely manifests in triglyceride levels exceed 1000 mg/dl. Our objective is to present the management of Acute Pancreatitis secondary to Hypertriglyceridemia with insulin infusion.

Materials and Methods: Three patients who suffered Hypertriglyceridemia induced Acute Pancreatitis are reported. Initial blood triglyceride levels were above 1000 mg/dl. Besides the usual treatment of Acute Pancreatitis, insulin was administered intravenously in continuous infusion.

Results: Serum Triglycerides reduced to less than 500 mg/dl in 3 days. No complication of the treatment was seen.

Conclusion: Along with bowel rest, intravenous fluids and symptomatic therapy, Insulin infusion in patients initiated for patients with Hypertriglyceridemia induced Acute Pancreatitis, since Insulin potentiates lipoprotein lipase activity which in turn accelerates a compensatory lipolysis degradation thus lowering Triglyceride levels.

A study of portopulmonary hypertension in cirrhotic patients with special reference to endothelin-1 levels

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Background: Portopulmonary hypertension (PPOPH) refers to pulmonary arterial hypertension that is associated with portal hypertension and is a well recognized complication of chronic liver disease.

Objective: To determine frequency of pulmonary hypertension in patients with hepatic cirrhosis and portal hypertension and to correlate the level of Endothelin-1 with Pulmonary hypertension and hepatic cirrhosis.

Materials and Methods: Cross sectional study was conducted in Department of Medicine, King George’s Medical University, Lucknow over a period of one year after getting ethical approval. Known cases of chronic liver disorders (jaundice, edema, ascites, hypersplenism, lower oesophageal varices and rectal varices, derangement of liver function test and Child-Pugh-Turcotte scoring, ultrasonography, (4 phase nodularity, echotexture) were included. Patients age <18 years and PREDG were significantly (p=0.0001) higher among pulmonary hypertension patients than in those without.

Results: In total, 47% had a positive breath test. The most common symptoms were bloating in 69% and belching in 68% subjects. Breath test positivity was positive in 97 in ethane in 54 and both hydrogen and methane were high in 15 subjects. Only hydrogen in halitosis (p=0.02) and methane in alcohols (p=0.03) were significantly related.

Conclusion: For positivity hydrogen was more common than methane. Breastfeeding was the most frequently perceived symptom. The statistical significant clinical symptom for a positive breath was presence of halitosis and alcohol consumption. Low fermentable oligosaccharide disaccharide monosaccharide and polyol (FODMAP) diet was explained to all the subjects.

Correlative Study between Fibrosan and Serum Ferritin in Non Alcoholic Fatty Liver Disease Patients

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Introduction & Objectives: NAFLD is becoming the most common cause of liver disease in the world. Fibroscan can be used non-invasively to tell about liver stiffness in kilopascals(kPa) i.e about degree of fibrosis. Recently serum ferritin is also being considered for predicting the disease severity in NAFLD patients.

Materials and Methods: Cross sectional study conducted in 49 patients of NAFLD, visiting medicine outdoor of KGMU, Lucknow. Patients between age of 18 to 65 years with fatty or coarse liver commented on USG, and (or) deranged LFTS with no other obvious cause of liver disease. A random sample from KGMU, serum ferritin evaluation and values correlated

Results: 91.9 % patients were labelled obese according Asian BMI classification. 63.1 % patients were hypertensive, 43.1 were diabetic and 26.3 % patients were both diabetic and hypertensive. Mean S. ferritin, Fx-KPA were 294.18±67.28 mg/ml, 16.63±6.97, respectively in cases.

Conclusion: A combination of Fibro scan as a radiological modality, S.Ferritin, a biochemical marker can be used for assessing the steatotic and fibrotic process in NAFLD. Serum ferritin is a useful tool for histological severity, with both dx and prognostic implication and can prove helpful in bypassing invasive procedures like biopsy.

Acute Pancreatitis, since Insulin potentiates lipoprotein lipase activity which in turn accelerates a compensatory lipolysis degradation thus lowering Triglyceride levels.

Hydrogen and Methane – It’s the Bomb! Outcome of Breath Test in Health Care Providers

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Introduction: Small intestinal bacterial overgrowth (SIBO) is defined as increased number (>10^9 bacteria CFU per ml of proximal jejunal aspirate) of normal type of bacteria in small bowel" jejunal aspiration and culture being the gold standard, breath test commonly used non-invasive test for the diagnosis of SIBO.

Methods: A total of 300 patients were recruited for the study. Breath test was performed using quinbron test breath analyser, Milwaukee, USA. Pearson’s Chi-Square test was performed for determining significant relationship between two categorical variables.

Results: In total, 47% had a positive breath test. The most common symptoms were bloating in 69% and belching in 68% subjects. Breath test positivity was positive in 97 in ethane in 54 and both hydrogen and methane were high in 15 subjects. Only hydrogen in halitosis (p=0.02) and methane in alcohols (p=0.03) were significantly related.

Conclusion: For positivity hydrogen was more common than methane. Breastfeeding was the most frequently perceived symptom. The statistical significant clinical symptom for a positive breath was presence of halitosis and alcohol consumption. Low fermentable oligosaccharide disaccharide monosaccharide and polyol (FODMAP) diet was explained to all the subjects.

Clinical Spectrum of Precipitating Factors of Hepatic Encephalopathy in Cirrhosis of Liver

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Introduction: Hepatic Encephalopathy (HE) is a complex potentially reversible neuropsychiatric condition that is defined both as a consequence of liver disease and as a complication of portal hypertension and is a well recognized complication of cirrhosis of liver. It is a well recognised clinical complication of cirrhosis of liver and the presence and prompt identification of will defined precipitating factors is important in diagnosis and treatment of this fatal condition. Cirrhosis of liver is common in our day to day clinical practice as in our sub-continent there is high prevalence of Hepatitis B as well as Hepatitis C.

Aims and Objectives: To study the clinical profile of hepatic encephalopathy in chronic liver disease.

Methods: To study the clinical spectrum and to identify the precipitating factors of hepatic encephalopathy in patients with cirrhosis of liver.

Results: 100 cases of cirrhosis of liver who presented in hepatic encephalopathy admitted to tertiary care hospital between September 2017 and 2019 were studied. All patients of more than 18 years of age manifesting with signs of hepatic encephalopathy were included and those who had fulminating hepatitis or noncirrhotic portal hypertension were excluded from the study. Detailed history, clinical examination and thorough investigations were done to look for any precipitating factor and the findings were recorded on a proforma and prognostic stratification through Child Pugh score was done.

Results: Out of 100 patients Upper GI bleed (51%), consciousness (41%), hyperammonemia (38% ) and infection–spontaneous bacterial peritonitis (22%) stood out as the most common precipitating factors. Usage of diuretics, sedatives and excess dietary protein were the other factors.

Most patients were in grade III (30%) and grade IV (37%) of hepatic encephalopathy. Other common associations were Child Pugh class C (67%), mortality (37%) and alcoholism(54%).

Conclusion: Upper GI bleed, constipation, Infeciton and electrolyte imbalance were the most common precipitating factors of Hepatic encephalopathy in this study.

A Study on Etiology of Acute Hepatic Insults in Acute on Chronic Liver Failure and it’s Outcome in a Tertiary Hospital in Assam

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Introduction: Acute-on-chronic liver failure (ACLF) is an increasingly recognized distinct disease entity encompassing an acute deterioration of liver function in patients with chronic liver disease. ACLF should be differentiated from acute liver failure (ALF) and a chronic decomposition of an end-stage liver disease. It results in significantly higher short- and long-term mortality and is usually associated with a precipitating event. ACLF can develop from one or more clearly defined acute hepatic insults. It includes active alcohol consumption, reactivation of Hepatitis B virus (HBV) infection, super-infection with HCV and other hepatotropic viruses, drug-induced liver injury, consumption of complementary and alternative medicines (CAM) and severe autoimmune hepatitis. Etiology of chronic liver disease and the acute precipitants of autoimmune hepatitis

Materials & Methods: We did a clinical analysis of three patients who presented with first episode of jaundice and diagnosed to have autoimmune hepatitis (AIH). Drug & alcohol history was absent. Viral markers (hepatitis A, B, C, HIV) were non-reactive. With occult hepatitis they were worked up for autoimmune hepatitis with serological markers (ANA, ASMA, LKM, SLA, and AMA) liver biopsy and made a final diagnosis of AIH.

Results: All three patients were females of age around 40. Their bilirubin levels ranged from 3.2 to 16.8 with SCOT & SGPT between 149 - 770. One patient was positive for ANA, ds DNA, Anti smith antibody who was diagnosed to have SLE with liver involvement. Second patient was positive for ANCA, ASMA, ASMA with CHS and C5 vasculitis. Third patient was positive for ANA, ASMA without any other systemic features, hence diagnosed to have primary AIH.

Conclusion: Possibility of autoimmune hepatitis should be considered in every patient with unexplained hepatitis since early diagnosis and treatment will have a better outcome.
A Rare Cause of a Common Disease: Hypertriglyceridemia Induced Pancreatitis

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Introduction: Acute pancreatitis is a common condition with various etiologies and alcohol being the most common. Hypertriglyceridemia (7%) is a rare cause of common disease - acute pancreatitis. Report of the case: A 47 year old diabetic female presented with abdominal pain since 3 days, vomiting since 3 days. Non alcoholic. On examination, anus senilis present, lipemia retinalis present, xanthomas present over both the elbows.On abdomen examination,tenderness present in epigastrium, no guarding and rigidity. Other systemic examination was normal.

On laboratory examination, Hb: 12g/dl, TLC: 10000/mm3. Platelets: 3.6 lakhs/mm3,liver and renal function tests were normal. Serum amylase: 475U/L, serum lipase 412U/L, serum triglycerides: 3800mg/dl.

USG abdomen showed bulky head and body of pancreas. CECT abdomen was suggestive of Acute pancreatitis with left upper quadrant effusion.

Patient was kept on conservative management and started on intravenous insulin drip at a rate of 15ml/hr and sugars were monitored serially and maintained at 150-200mg/dl with 5% dextrose and serial triglycerides were monitored. After two days, triglycerides levels decreased to less than 500 mg/dl. Insulin drip was stopped. Patient was symptomatically improved and was discharged with fatty acids, saroglitazor, omega3 fatty acids and subcutaneous insulin at discharge.

Discussion: Hypertriglyceridemia is a lifethreatening inflammatory condition of pancreas. Elevated free fatty acids cause damage to acinar cells. To reduce serum triglycerides, insulin infusion is effective. Insulin increases lipoproteinlipase activity and degrade chylomicrons, thus reduce serum triglycerides.

Conclusion: There are no set established guidelines for the management of hypertriglyceridemia-induced acute pancreatitis, but the role of insulin, heparin, and plasmapheresis has been studied and successfully used in some cases in our patient. Intravenous insulin therapy successfully treated hypertriglyceridemia and thereby acute pancreatitis.

PANC 3 Score in Predicting Severity of Acute Pancreatitis

Debjipta Saha, Aparna Agrawal, Manoj Andley, Manoj Jais, Aparna Agrawal, Manoj Jais
Lady Hardinge Medical College, New Delhi

Objectives: To determine PANC-3 Score and to correlate it with hospital in clinical course and outcome of acute pancreatitis and to compare PANC-3 Score with revised Atlanta score.

Method: 62 adult patients diagnosed to have acute admitted in medicine and surgery departments of LHMC New Delhi were included. Pregnant and lactating females, patients with carcinoma and chronic obstructive pancreatitis were excluded. To assess the severity grade of Acute Pancreatitis PANC 3 Score (hematocrit=44 %, pleural effusion and / or BMI ≥ 30 kg/m2) and Revised Atlanta classification 2012 were calculated on day 1 of hospitalization.

Results: Age 19-62 years, male: female = 2:1, PANC 3 Score ≤ 1 was found in 62.9% (39) patients. Hematocrit <44% was present in 37.09%(23), pleural effusion on Chest X Ray was present in 51.61%(32) and BMI ≥ 30 kg/m2 was present in 8.06%(5).

During hospital stay, organ involvement (Hepatic (85.4%) > Hematological (56.4%)> Cardiac (53.2%)> Renal) (30.65%) was common. As PANC 3 Score increased from 1 to 3, frequency and severity of organ involvement increased.

Organ failure and SIRS were present in all patients with PANC 3 Score of 3. Out of 20, 19 patients who had only local complications had nil PANC 3 Score. Incidences of local and systemic complications were 100 % in patients who had PANC 3 score as 3.

Correlation between PANC 3 Score and Revised Atlanta Score

<table>
<thead>
<tr>
<th>Revised Atlanta score</th>
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<tr>
<td>Mild MOD- Severe</td>
<td>Total</td>
</tr>
<tr>
<td>0</td>
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<td>1</td>
<td>16</td>
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Conflict of Interest: PANC 3 Score is a simple and easy score which can predict severity of acute pancreatitis.

Fortuitous Upper GI Involvement in Ulcerative Colitis

Abhishek Kushwah Tiwari

Introduction and Objectives: Involvement of the upper gastrointestinal tract by inflammatory bowel disease was thought to be a feature of Crohn’s disease, whereas ulcerative colitis was considered to be limited to the colon. Extraprotective symptoms or involvement is common.

Materials and Methods: We studied 3 cases of inflammatory bowel disease over a period of 15 months which involved the upper GI tract. Patients presenting with typical symptoms were investigated further. They underwent an array of tests based on guidelines for confirmatory diagnosis.

Discussion: Those patients who had colonicopics findings suggestive of ulcerative colitis and the diagnosis of which was reiterated by other confirmatory tests were subjected to endoscopy. The role of upper GI endoscopy for fecal calprotectin level and were also PANCA positive. The endoscopic and histopathological exam agreed to the diagnosis of ulcerative colitis in the upper gastrointestinal tract.

Conclusion: Patients with involvement of upper GI, against the popular belief should have ulcerative colitis in its upper gastrointestinal tract. Ulcerative colitis were detected in our study which involved the upper GI tract.

Infectious Diseases

A Study on Outcome of Fever with Thrombocytopenia in Dengue Positive and Negative Individuals

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Introduction: Dengue is probably the most important arthropod borne viral disease in terms of human morbidity and mortality, most important reason being tendency of bleeding and thrombocytopenia. It also cause reduction of platelets. There are studies to show that dengue causes thrombocytopenia and requires platelet transfusion. However, certain non dengue individuals with febrile illness also present with thrombocytopenia. So, there is a need to compare these two groups to formulate prognosis of dengue over non dengue viral cases.

Materials and Methods: Cross sectional study, presenting with fever with thrombocytopenia admitted in Gandhi hospital during period of June to September. The patients were acute fever cases, whose platelet count less than 1.5 lakh were included in the study. All the cases of fever with thrombocytopenia presented at Gandhi hospital from June to September 2016 and 2018 were observed and results were compared between dengue positive and dengue negative individuals in these two years.

Results: In 2016, 156 patients were included in the study with age above 18 years. Out of 156 cases of acute febrile illness, 42(26.9%) were dengue positive and 114(73.1%) were dengue negative. In 2018, 161 patients with 29(18.0%) dengue positive and 132 (82%) were dengue negative. The RDP units required were on average 4.44 in dengue positives and 3.404 in dengue negatives respectively. Duration of hospital stay was less than 7 days in dengue positives and 4±2 days in negatives.

Conclusion: Though mean platelet count was higher in dengue positives, complications, mean hospital stay and outcome is graver when compared to seronegatives. So, meticulous care is to be ensured while treating dengue positive individuals over dengue negative individuals, even at higher platelet counts, as they have higher risk of bleeding manifestations which are life threatening and requirement of RDPs is more in dengue patients over non dengue.

Disseminated Tuberculosis with Drug Induced Lupus- A Case Report

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Disseminated tuberculosis is involvement of two or more non-contagious organ involvement of mycobacterial infection without classical or radiological features. It remains potentially lethal if not diagnosed and treated earlier. Lupus or Systemic Lupus Erythematosus (SLE) is a chronic collagen vascular disease of autoimmune aetiology with multisystem involvement. We report a case of disseminated tuberculosis in an adult female with skeletal, pleural involvement complicated with drug induced lupus erythematosus (DLE) while on antitubercular treatment (ATT) and had a rapid downhill course to the death due...
Introduction: Dengue fever is endemic in tropical and suburban regions of the world and almost 1.8 billion population at risk live in south east Asian countries. Dengue hemorrhagic fever being one of the most common haematological manifestation in these patients, very low platelet count demands platelet transfusion. Although it is life saving in some patients it is necessary to prevent unnecessary transfusions. Hence, there are some parameters which can predict platelet recovery in dengue patients. We aim to study the relationship of these platelet indices like Immature platelet fraction (IPF), Platelet Distribution Width (PDW), Platelet Large Cell Ratio (PLCR) and Mean Platelet Volume (MPV) with Platelet Count (PC) in predicting the platelet response.

Materials and Methods: An observational descriptive study has been conducted in a tertiary care centre who presented with clinical features of Dengue fever with microbiologically positive test for NS1 antigen or IgM antibody during August 2018 to September 2018. 30 patients have been included in the study. The correlation of plasma indices with platelet recovery has been tried with the help of linear regression analysis and calculating the relationship between platelet count and its indices.

Results: 93.33% showed improvement in platelet count after 24 hours once the IPF reaches its maximum which is on the smaller side.

Discussion: At times VL can be difficult to manage due to close mimickers like TB and rare complications like Pseudomonas, Salmonella typhi delayed the treatment and could have contributed to subsequent serious complications and thus grave outcome.

A Rare Presentation of H1N1 with Pleural Effusion

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Discussion: Visceral Leishmaniasis (VL) is a rare entity and difficult to diagnose. While the literature regarding PH has also been infrequently reported.

Portal hypertension(PH) and Hemorrhagic Lymphohistiocytosis (HLH): rare manifestations of Visceral Leishmaniasis

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Discussion: There has been no report of cases having both these conditions and define an optimal normal value for Presepsin in an Indian population and the value calculated was 93.71 with a sensitivity of 65.4 and a specificity of 75.7.

Conclusion: This study shows the superiority of Presepsin over Procalcitonin as it has much better specificity and a similar sensitivity than Procalcitonin and a low P value of 0.001. It was found that we have postulated here for Presepsin improves the efficiency of the inflammatory marker by increasing its specificity slightly. The limitation of the study is with respect to the sample size which is on the smaller side.

Hemolytic Anemia in Viral Fever: Three Uncommon Scenarios in Two Common Infections

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Discussion: Viral fevers are rarely complicated by hemolytic anemia of different mechanisms. G6PD deficiency, DIC, TTP, HUS and immune-mediated are the most common complications reported. In view of recent outbreaks of varicella, we highlight one of the under reported complications of viral fever that requires a systematic approach for diagnosis.

Dengue Fever with Complicated MRSA Infection – A Case Series Report

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Discussion: Bacteremia in the course of dengue infection is rarely described in medical literature. This is a retrospective chart review of 3 patients developing MRSA infection within a month following dengue fever.

Case 1: 37 year old diabetic female, referred with fever and sepsis on onset development of left upper arm swelling and cranial monoparesis. She was hospitalised with dengue fever 2 weeks prior to the episode and had developed thrombocytopenia and bacteremia with E. coli (non-ESBL) on day 3. Imaging showed bilateral abscess with left gluteal abscess; pus aspirated from gluteal abscess grew MRSA. She was initiated on broad spectrum antibiotics for 1 week and developed persistent back ache & raised ESR. Repeat imaging revealed sacral osteomyelitis, which improved with continued treatment.

Case 2: 50 year old pre diabetic female, developed dengue fever without warning signs along with thrombocytopenia and subsequent abscess which was surgically drained. 4 weeks later presented with left knee joint pain, tenderness and diagnosed with spondylodiscitis C5-C6. It was drained, pus grew MBSA. Discosintomy was done. Her symptoms subsided with 6 weeks of IV Vancomycin.

Case 3: 37 year old female, presented with Broncho pneumonia, sepsis, thrombophlebitis and abscess on the
dorsum of Right hand. She had dengue fever 3 weeks back. Diagnosis of severe dengue was confirmed by Acinetobacter, started on IV Meropenem and Colistin. CT chest showed thin walled cavities, secondary to septic emboli.

Introduction and Methods: A 35-year-old female presented with fever of 2 months duration, followed by persistent cough, expectoration, and joint pains. She was diagnosed with phagocytic & migratory capacity of macrophages, impaired interferon signalling pathway, neutropenia, increased capillary leakage, all contribute to facilitation of superinfection in dengue. In case of prolonged fever not responding to routine treatment / unusual manifestations of dengue fever, look into other causes for preventing mortality. Therapy: Post Dengue fever Staphyloccocal infections run a complicated and protracted course & thus reiterates the importance of precaution against healthcare associated infections.

Dengue Fever and a Scoring for Prognostication – A Cross Sectional Study

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Introduction & Objectives: Dengue can potentially develop into a lethal stage, severe dengue. Though there is no specific therapy for dengue, severity of disease is proportional to its duration. Most of these subjects belonged to younger age group of 18-25 years. Among these 100 patients, 48 patients recovered completely and 52 patients succumbed to the illness.

Conclusion: Acute undifferentiated fever is one of the most common problems the treating physician. Among infection, Dengue fever was the commonest cause. As the number of involved organs increased mortality and morbidity in the form of non-membranous or renal failure was increased in hospital stay were increased. We need advanced investigations to find out the exact etiology of the same in the future.

Clinical Profile of Acute Bilateral Pneumonia with Special Reference to H1N1 Pneumonia in a Tertiary Care Hospital

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As the recent incidence of bilateral pneumonia has been tremendously increasing, however clinical profile and outcome in bilateral pneumonia from varied etiology remains under study and requires comprehensive study and there is a lack of scientific research about PSI score and hyponatremia as the prognostic indicators for various causes. We can presume that the flu like symptoms/unilateral/bilateral pneumonia. Previously, H1N1 pandemic 2009 and post pandemic 2014 has led to a massive interest in H1N1 pneumonia which shows rapid progression. Immune reactance has been recently decreasing due to lot of preventive measures taken. But H1N1 causing bilateral pneumonia is a hazardous disease threatens population which need should be highly effective measures.

Objectives:
1. To study the clinical, etiological and radiological features of H1N1 pneumonia.
2. To study the morbidity and mortality in patients with bilateral pneumonitis in relation to age,sex,clinical condition and associated comorbidities.
3. To measure the serum sodium levels in patients with bilateral pneumonitis and correlate it with severity of pneumonitis.

Materials & Methods: Observational Descriptive study of 311 patients admitted in Department of Medicine and Disaster wards, Gandhi hospital which is a nodal center for H1N1 in Hyderabad; who were diagnosed with bilateral pneumonia at admission during August 2017 to July 2018 and whose data were included in the study. All the patients were subjected to routine investigations like Complete blood count with ESR, Routine biochemistry (RBS, RFT, LFT, Lipid profile from Tamil Nadu R. All were AFB, Sputum culture, Urine routine and microscopy, HIV, Chest X ray, Ultrasonography of Chest and Abdomen, and HBAT to be done as necessary such as H1N1, Pneumonel, Arterial blood gas analysis, and Blood culture.

Results:
Out of 311 patients, 210 were males and 101 were females. 180 patients were of elderly age group >50 years;99 patients were of middle aged<50 years and 32 patients were young age <25 years. 45% presenting in PSI class-I are having more than 2 comorbidities such as COPD,renal,hepatic/cardiovascular comorbidities. COPD and renal comorbidities are the most common encountered ones.SOB is the most common manifestation in elderly i.e seen in 88 patients(48%)followed by cough and fever.In middle aged,fever and cough are the most common ones seen in 61 patients(60%). Lung pathology(30%),smoking(70%) and alcohol (65%) risk factors are high in males while DM,Pulmonary TB,GERD pathology(30%),smoking(70%) and alcohol (65%) risk factors are high in males while DM,Pulmonary TB,GERD

Conclusion: Though there is no specific therapy for dengue/severe dengue (case fatality remains under study). Here we try assessing the fatality rate to below 1 %. Here we try assessing the fatality rate to below 1 %.

Tuberculosis is a common public health problem in developing countries. One in five people in the world have TB and one in ten will develop the disease during their lifetime. Small joint involvement is exceptional. This probably is the first case reported of an erosive TB arthritis involving metacarpophalangeal joint and later presented to be a Poncets disease.

Case Report: Here we report a 38 years old male patient, from a lower socioeconomic class with the left thumb base swelling increasing in size for past one year. Along with, he had multiple joint pains for 3 weeks then with minor involvement of right knee, left big toe, multiple MCP joints in both hands. On examination a firm, non-tender, first MCP joint swelling completely subluxated with obvious erosive changes. Erosion of the articular margins, all features of non-erosive arthritis in multiple joints except for first MCP, which was erosive. The workup for rheumatoid, crystal arthropitides and connective tissue disorders came back negative. Montoux was negative and an ESР of 42. GeneXpert of sputum from first MCP joint revealed low positive M. tuberculosis. Histopathology of synovium revealed no evidence of granulomatous lesions. Joint aspiration from other joints showed no evidence of tuberculosis.

Patient was started on combination ATT under DOTS and improved clinically.

Discussion: Since 1887, when Poncets described symptomatic inflammatory polyarthitis in patients with dengue fever, there has been little review in literature, which led clinicians to question the existence of such a disease. Since the presentation also mimics other common arthritides, it is generally underdiagnosed. In our case, primary erosive osteoarticular tuberculosis in first MCP joint, led to development of non- erosive arthritis in remaining joints. This combination could be explained as Poncets disease. The time frame for presentation of polyarthritis was 3 weeks as against to the usual disease arthritis of one year. There was a similar case reported of a Poncets disease in patient with tuberculous arthritis of steroocaviculat joint.

Methods: There were several diagnostic criteria developed such as the Sharma and Pinto diagnostic criteria. Our case fit in with two essential criteria 1) Inflammatory, non erosive arthritis and 2) Erosion of other causes of inflammatory arthritis; and two major criteria 1) complete response to antitubercular therapy 2) Concurrent infection of extra-articular tuberculosis (except for the first MCP joint, all the other joints were non-erosive and harboured no Mycobacterium).

Conclusion: This case was presented for its rarity (as for our knowledge, this is the first case of a tuberculosis arthritis involving first MCP joint) and to emphasise on the need for good clinical suspicion for Poncets disease in patients presenting with inflammatory polyarthitis, especially with foci of TB.

Developing a prognostic scoring system for dengue fever

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Background & Objectives: Due to the recent upsurge of dengue cases in our clinical setting, the need for a reliable scoring system for dengue fever was felt. The objective of our study was to develop a scoring system for predicting prognosis in patients with dengue fever at their time of presentation to the hospital.

Methods: It was an observational study done in a tertiary health centre of northern Kerala from August 2017 to July 2018. 570 patients who satisfied our inclusion criteria

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were studied. At the time of presentation the patients’ various clinical and laboratory parameters were assessed. The various parameters obtained at the time of presentation were than compared with their eventual outcome. Chi-square test was significant when correlated with respect to outcome, esp. mortality. The scoring system was developed using a binary logistic regression of the significant parameters using forward LR method. Beta coefficient for each component was calculated and rounded off to the nearest integer to allot weightage. A total score of 12 was than obtained for all components. The ROC analysis was constructed based on the scoring system applied to our study population. The cut-off was based on Youden Index.

Conclusion: A prognostic scoring system for dengue fever which consists of 5 – RR, BP, ARDS, Myocarditis and Bleeding manifestation was not found to be significant indicating that treating patients based on platelet count is unscientific.

Scrub Typhus – An Expanding Clinical Syndrome: Experience from the Sub-Himalayan Region

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Introduction and Objective: Scrub typhus is a Rickettsial zoonosis caused by Orientia tsugamushi, which is prevalent in the Asia-Pacific region. The study sought to describe the clinical manifestations, atypical features, and shows good response to currently available treatment. A bacteriological diagnosis of the lesions was made in our case.

Materials and Methods: The current study was a cross sectional study,conducted in the department of general medicine, Dr. Prabhakar Kore hospital, KLE University, Belgaum. A total 100 dengue cases receiving treatment from the study setting between January 2017 to December 2017, selected by universal sampling were included in the final analysis. The study included all the proved cases of dengue fever admitted in the study setting.Confirmation of dengue viraemia was done using ELISA and confirmed by IFA. Laboratory tests: IgM, IgG antibody or dengue NS1 Antigen detection. Hypocalcaemia was defined as the presence of serum calcium < 8.5 mg/dl.

Results: A total of 100 subjects were included in the final analysis. The mean age of the study population was 26.6 ± 10.65. Among the study population, 74 (74%) participants were male and the remaining 26 (26%) were females.Among the 61 antigen was positive in 28%, 68% study we study were IgM +ve and 32% (50%) participants had both Dengue IgM + IgG +. Among the study population, 72 participants had Dengue fever, Dengue Hemorrhagic fever and Dengue shock syndrome were 23(23%).

A higher proportion of subjects in dengue shock syndrome and DHF had lower levels of serum calcium as compared to dengue fever.

Conclusion: The current study has documented a strong association between the dengue severity and lower serum calcium levels.

Assay of Proinflammatory Cytokines (IL-6, IFN γ, TNF α ) and its Correlation with Disease Severity in Dengue Fever

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Objective: To determine the serum levels of proinflammatory cytokines in patients with documented dengue infection and to determine correlation between levels of cytokines and disease severity, platelet counts and SGOT.

Methods: Blood samples were collected from 60 patients; 49 patients of dengue fever and 11 of severe dengue from June - July 2016 at Pushpagiri Institute of Medical Science and Research Centre. All the patients were confirmed positive for dengue infection by serology. Ten healthy individuals were included as controls. Serum levels of IL 6, IFN γ and TNF α were determined by ELISA. Standard statistical methods were used.

Results: Total 60 subjects were included in current study. The mean age was found to be 43, 24 were males and 36 were females. 49 patients had dengue fever and 11 patients had severe dengue. 27 cases belonged to primary infection and 33 cases belonged to secondary infection. The level of interleukin 6 was found to be elevated in the severe form of disease(333.46 ± 10.65) and compared to primary infection as a causative agent after good response to Clindamycin. Ultrasongraphy is a non-invasive and readily available imaging tool, which was mainstay of diagnosis in our study.

Conclusion: Despite being an uncommon disease, it is important to diagnose this syndrome accurately because of high mortality rate(>15%). Hence for management of disease a high index of suspicion is necessary especially in these three situations adolescent age group, thyroid disorders and in patients who have been transfused.

Tuberculosis of Brain- A Case Series

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Introduction: The central nervous system (CNS) tuberculosis has high mortality and morbidity. With the HIV epidemic there is an increase in the prevalence, multi-drug resistance and disseminated forms of the infection. Intracranial tuberculosis can occur in any age usually affecting adolescents and young adults in developing countries.

We report a series of three cases of tuberculosis of the brain to describe the varied clinical presentation, radiological features and the outcome of treatment with antitubercular drugs.

Case Report: Case 1: A 20 year old female with throbbing headache and vomiting for the past 2 months. Fundus showed early stage papilloedema. No other focal neurological deficits present. Chest x-ray normal. MRI brain showed multiple Conglomerate ring enhancement. She was started on empirical ATT and showed symptomatic improvement.

Case 2: A 35 yr old female, chronic steroid abuser presented with throbbing headache for 1month, fever for 4 days, altered sensorium for 1 day. On examination she had local neurological deficit. Multiple ecchymotic patches over body. Her MRI revealed multiple granulomas. CSF CBNAAAT Positive. Patient started on ATT. But expired on day 2.

Case 3: A 56 year old male newly detected PLWHA presented with altered sensorium and seizures, fort day. MRI revealed multiple tuberculosis, started on ATT. Showed clinical improvement.

Discussion: In contrast to the cerebral TB abscesses, which require surgical and pharmacological treatment tuberculosis respond well with only pharmacological treatment. A bacteriological diagnosis in cases of high mortality rate is usually determined by good response to treatment. The causative agent is usually Fusobacterium necrophorum, other isolates are Peptostreptococcus, Bacteroides, Propionibacterium and Actinomycoses species. In our case Staphylococcus aureus was grown in throat culture which was not helpful in management. As there is no facility to grow anaerobic organism in our hospital therefore we considered anaerobic infection as Fusobacterium necrophorum. The patient was symptomatic after ATT started.

Conclusion: A high index of suspicion is necessary especially in these three situations adolescent age group, thyroid disorders, HIV patients and other immunocompromised individuals to initiate early treatment and reduce morality.

Clinical Score for Risk Stratification of Febrile Thrombocytopenia

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Introduction: Febrile thrombocytopenia is frequently encountered by physicians especially during monsoon. There are no guidelines and precise cut off level of platelets at which transfusion is indicated. Unwarranted blood transfusions may have adverse effects on patients whilst delaying blood bank requests.

Khosravsi et al have developed a risk score for febrile thrombocytopenia to aid in determining therapeutic intervention.

Objective: To validate clinical scoring system for management of febrile thrombocytopenia.

Materials and Methods: Observational study where patients are grouped into low, moderate and high risk based on pulse, temperature, respiratory rate, BP, platelet count, CNS, Respiratory, haematological, hepatic and renal
complications

Inclusion criteria:
- Age >18 years.
- Medical History > 90.9%.
- Platelet count < 1.50,000/mm³.
- Exclusion criteria:
- Patients on drugs causing thrombocytopenia like chemotherapy, immune suppressants and anti-platelets.
- Previously diagnosed patients with chronic thrombocytopenia like ITP.

Study of Platelet Indices in Patients of Dengue and its Impact on Morbidity and Mortality

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Introduction and objectives: Dengue most prevalent and major causes of morbidity and mortality particularly in children due to complications. Recently Platelet indices (PSI) like Plateletcrit (PCT), Mean platelet volume (MPV), Platelet distribution width (PDW), Platelet large cell ratio (PLCR) and mean platelet area are known to have prognostic significance in dengue fever. Aims and objective was to study the association of platelet indices in dengue infections and its role in severity outcome.

Methods: It was prospective observational (cross sectional) study conducted in tertiary hospital. MPV, PDW, PCT, PLCR and Platelet (PLT) parameters of clinically and confirmatory confirmatory dengue cases compared with 100 normal and serological negative controls. Statistical analysis was statistically analyzed and the values were expressed as mean (SD) and a P value < 0.005 was considered as statistically significant.

Results: PLT and PCT was statistically low in case of dengue (p<0.000). PDW and PLCR was significantly high in dengue (p<0.002 and p<0.000 respectively) and MPV not statistically significant (p>0.778).

Conclusion: High prevalence of malaria and dengue were found in this study. Overlap infections were not due to coinfection but also due to subclinical infections, cross reactivity, underreporting of previous infections. High occurrence of AUF was due to limitation of available diagnostics test. Around 50% of patients were treated symptomatically and 25% of them were good. Depressed history taking, clinical examination and relevant investigations will avoid irrational use of antibiotics and antimariala.

Significance of APTT as Early Predictor of Bleeding in Comparison to Thrombocytopenia in Dengue Virus Infection

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Introduction: Dengue is a systemic viral infection transmitted by mosquitoes such as Aedes aegypti or Aedes albopictus. Dengue Fever (DF) is characterized by fever, headache, muscle or joint pain, and rash. The spectrum of dengue virus infection spreads from an undifferentiated fever and dengue fever (DF) to dengue haemorrhagic fever (DHF) with shock. Factors responsible for bleeding manifestations in dengue are vasculopathy, thrombocytopenia and disseminated intravascular coagulation (DIC). Coagulopathy results in derangements of activated partial thromboplastin time (APTT) which is not significantly extending bleeding risk.

Materials and methods: Objectives: (1) To measure APTT levels in dengue virus infection (2) To identify the role of APTT increase with thrombocytopenia as an indicator of bleeding manifestation to assess the real need of platelet transfusions.

Design: A prospective study was conducted from June to December in 2017 in R.L. Jalappa Hospital. Patients aged above 18 years with febrile thrombocytopenia who are positive for dengue virus serology (NS1Ag and/ or IgM) were included in the study. Serial daily monitoring of platelet count and analysis of APTT levels were done. APTT was considered abnormal if it was more than 33.8s.

Results: Out of 170 patients 28.1% patients had bleeding manifestations. Bleeding signs were seen on clinical examination in 52.37% of patients. capillary leak was found in the form of Pleural effusion in 33.5%. Acities in 41.2% and Peribortal edema in 31.2% of patients. Elevated APTT was observed in 1190 patients (69.5%) of whom 222 patients (20%) had abnormal APTT levels. Among patients with abnormal APTT platelet transfusion was done in 79.9% of patients, and among these with normal APTT levels platelet transfusion was done in 21.1% of patients.

Conclusion: Our study showed significant correlation between bleeding manifestations and prolonged APTT levels as well as between thrombocytopenia and APTT levels. Study concluded that 21.1% of platelet transfusions could have been prevented considering prolonged APTT as a predictor of bleeding manifestation, thus saving the resources and reactions due to platelet concentrate transfusion.

A Study on Acute Undifferentiated Fever – Clinical Profile & Response to Treatment

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Introduction and objective: AUF is defined as temperature of ≥38°C with history of febrile illness of 2-14 days duration in an immunocompetent individual.

The objective of this study was to determine the clinical profile, course, aetiology and response to treatment in a tertiary care centre.

Methods and Materials: During August 2017-Jan 2018, patients with acute undifferentiated fever (AUF) and fever of less than 14 days duration were included in the study. Study population were evaluated with detailed history, baseline investigations (CBC, serum biochemistry, urine routine) and relevant investigations (malarial films, serological test, blood culture) to identify the specific aetiology were done.

A total number of patients studied were 1012 (56.4% - males, 43.5% - females). Mean age was 34. Among 1012 patients 64% (42,24,36 urban-area) and 36% (28,36,30 rural-area). Average duration of fever ranged from 4 to 6 days. Among 1012 patients with AUF 35% were undiagnosed and remaining population had malaria positivity in 23%, dengue in 18%, leptospirosis in 6%, entere fever in 10%, scrub typhus in 4% and H1N1 in 4%. Among 1012 patients 5 (43,25,37) subjects were caused by P.virus and 20% were due to P.falciparum. Among 1012, 64% of patients were treated symptomatically, 18% with antitoxins and 10% with medical therapy.

Conclusion: High prevalence of malaria and dengue were found in this study. Overlap infections were not due to coinfection but also due to subclinical infections, cross reactivity, underreporting of previous infections. High occurrence of AUF was due to limitation of available diagnostics test. Around 50% of patients were treated symptomatically and 25% of them were good. Depressed history taking, clinical examination and relevant investigations will avoid irrational use of antibiotics and antimariala.

Frequency and Pattern of Neurological Involvement in Chikungunya Patients

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Introduction: Chikungunya virus is an insect borne virus transmitted by aedes aegypti mosquito. Traditionally Chikungunya is known to present with fever, myalgia and joint pains but it was first reported to affect the nervous system in the 1960s.

Objective: To study the frequency and pattern of neurological involvement in patients with confirmed chikungunya admitted to a tertiary care hospital in North India.

Methodology: The study was a retrospective and prospective observational study. Patients admitted with clinical presentation of chikungunya fever were included in the study. Clinical & investigations were noted to identify the neurological involvement in the prospective arm (January 2017-August 2018). In the retrospective arm the medical records of
confirmed chikungunya patients (January 2016–December 2016) were screened for look for symptoms and investigations suggestive of neurological involvement. Patients with preexisting neurological issues, obvious metabolic or septic cause for neurological involvement were excluded from study.

Results: Total of 309 patients were included in the study. Out of these, 112 (36.5%) patients were found to have neurological involvement. Among these, 111 patients had meningoencephalitis, 111.1% had meningoencephalitis with peripheral neuropathy and 1.1% had meningoencephalitis with seizures. Among the patients with neurological involvement, the most common presentations were altered sensorium (81.6%), headache (81.8%), neck rigidity (54.54%), vomiting (45.45%) followed by involuntary movements (18.18% of each). Chikungunya RT-PCR in CSF was positive in 36.36% of patients.

Conclusion: The recent epidemic of chikungunya virus infection was associated with various neurological complications, suggesting the neuropathic nature of the virus. Neurological involvement of chikungunya was identified to be a bad prognostic factor with significantly higher mortality.

Aspergillus Fumigatus Meningitis in an Immunocompetent Young Woman: A Case Report

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Introduction: Aspergillus meningitis is a rare clinical entity that is more frequently observed among immunocompetent patients. Here we present the case of a 28-year-old female non-resident of endemic area who presented with symptoms and signs suggestive of meningitis.

Case Report: A 28-year-old lady with Aspergillus fumigatus meningitis following spinal anaesthesia for caesarean section.

Discussion: Aspergillus meningitis during life. There is a report of 1.9% of patients with a much higher frequency among immunocompetent patients (69.2%) as opposed to immunocompromised individuals (19%). In our patients, the organism was grown from a surgical tissue sample and even after diagnosis, she did not respond to Voriconazole and intra-ventricular Amphotericin B.

Conclusion: We wish to highlight the need for high index of suspicion for Fungal meningitis in patients presenting with similar symptoms after procedures involving invasion into the CSF compartment, and the need for strict aseptic measures.

A Study of Isoniazid prophylaxis treatment in PLHIV on ART

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Introduction: Tuberculosis (TB) and Human Immunodeficiency Virus (HIV) are the two well known infections to cause severe morbidity and high mortality. TB, the most common cause of death among HIV-infected persons in the developing world. Antiretroviral therapy (ART) reduces the risk of tuberculosis. New or old, TB remains the most important cause of mortality and morbidity in patients on ART.

There were many side effects noted and few patients had to be discontinued due to side effects of isoniazid.

Objectives: To study the various side effects of isoniazid prophylaxis in people living with HIV (PLHIV) on HAART and its association with CD4 counts.

Methods & Materials: This was a retrospective patient records review of patients who were on HAART and received IEC clearance was obtained. The patients with deranged liver function tests (LFT), documented peripheral neuropathy and advanced liver disease before initiation of IEC IPT were excluded from study. The following data was extracted from patient records and analysed: demographic data, SGPT, CD4 count, and details of side effects of isoniazid.

Results: We found that, among the 439 patients who received IPT, 6 patients (1.5%) developed hepatitis (defined as a 3 times elevation of AST). HBsAg positivity and alcohol use did not have a statistically significant relation with hepatitis in our study. The duration of HIV, the CD4 at diagnosis and the CD4 before IPT initiation did not have a statistically significant relation with IPT. IPT was discontinued for these six patients. The other side effects of IPT were not noted in our subset of patients.

Conclusions: In comparison to other studies, our study had lower incidence of hepatitis in PLHIV receiving IPT. There was no significant association with CD4 count found in the study.
dengue will be taken as controls. Levels of serum sodium and potassium will be carried out in all cases and controls will be measured.

Results: Out of 50 cases of dengue fever studied, hypokalemia and hyponatremia were found in 11 and 12 patients respectively. Out of 50 dengue cases, 2 cases progressed to dengue haemorrhagic fever. Out of 50 fever cases other than dengue hypokalemia and hyponatremia were found in only 5 and 3 patients respectively.

Conclusions: This study showed that mild hyponatremia and hypokalemia is more common in dengue patients compared to fever cases other than dengue. It was found that hypokalemia and hypokalemia are associated with longer hospital stay in patients with dengue fever.

Efficacy of Chloroquine in Dengu Fever
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Introduction and objective: Dengue is endemic in India and worldwide. 3.9 billion people in about 128 countries are at a risk of infection with the virus. There is no specific vaccine or treatment for dengu till date. Universally available, inexpensive drug, chloroquine, has been shown to exert antiviral effects by inhibiting replication of flavivirus.

Material and Methods: Randomized double blind study was conducted in 60 patients and only those who were positive for anti-chikungunya IgM and IgG were excluded. Informed consent was taken. Patients were treated and monitored closely. Diagnostic testing was done with dengu IgG, Ig M antibody testing and NS1 antigen positivity on serology.

Results: Out of the 60 patients, 10 did not give consent. Among the remaining 50, 25 received chloroquine and 25 received placebo. No patient developed DSS, DHF, DHF-DH&E in both groups. A significant improvement in pain and improvement in daily activities (p<0.0001) with no significant difference in duration of disease or intensity of fever after a week (p<0.05).

Conclusions: Chloroquine, an anti-inflammatory drug can be used with a novel indication in dengue patients for alleviating their pain and improving quality of life.

Meningoencephalitis in Scrub Typhus – A Case Series Report
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Introduction: Scrub typhus caused by the organism Orientia tsutsugamushi, transmitted by trombiculid mites, is a common cause of acute febrile illness during the monsoon months in our region. Meningoencephalitis, although rare, forms a major part of complications of scrub typhus.

Objectives: To study the incidence of meningoencephalitis in scrub typhus cases admitted to our hospital and stress the importance of keeping it as a differential diagnosis.

Materials & Methods: A descriptive observational study of 39 diagnosed cases of scrub typhus admitted in our hospital during 6 months duration (may 2018 to October 2018) was conducted. Patients presenting with fever, altered sensorium were evaluated by NCCAT BRAIN followed by a lumbar puncture and the diagnosis of scrub typhus being confirmed serologically. Patients were followed up for improvement of symptoms and improvement in daily activities (p<0.0001) with no significant difference in duration of disease or intensity of fever after a week (p<0.05).

Results: Out of 39 cases admitted, 11 patients were diagnosed as having meningoencephalitis. Patients with meningoencephalitis had severe thrombocytopenia when compared to those without any CNS symptoms. Hypokalemia and hyponatremia in general and decreased serum protein level was almost always a hallmark in presence of meningoencephalitis. All patients responded well to doxycycline therapy with no mortality amongst cases under study.

Conclusions: There have been numerous outbreaks of scrub typhus in our state of Rajasthan especially in the Hadoti region. And in the recent years, whooping cough as has been an important contributor among the newer class of emerging infections causing mortality in India. Meningoencephalitis although rare, forms a major part of the complications of scrub typhus.

Triplet Drug therapy for Dapson resistant disseminated cutaneous Rhinosporidiosis
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Introduction: Rhinosporidiosis is a chronic granulomatous infection caused by Rhinosporidium seeberi. We report the case of a patient who responded to the new treatment regime following clinical failure with dapson.

Case Report: This 62 years old immuno competent male was diagnosed with Rhinosporidiosis 45 years ago. His initial presentation was a nasal swelling. He continued to have recurrences of the nasal swellings for the next 38 years for which he underwent surgical resections at least 12 patients respectively. Out of 50 dengue cases, 2 cases progressed to dengue haemorrhagic fever. Out of 50 fever cases other than dengue hypokalemia and hyponatremia were found in only 5 and 3 patients respectively.

Discussion: Surgical resection has been the mainstay for treatment of rhinosporidiosis. Drug therapy was before used earlier for this disease. Lenti et al treated a case of disseminated rhinosporidiosis in an immunocompromised individual with combination therapy with Cyclosorine, Dapson and Ketonazolone with good response as in our case.

Conclusion: Triple drug therapy along with surgical resection is a promising treatment for patients with disseminated rhinosporidiosis resistant to Dapson.

Hemophagocytic Lymphohistiocytosis in Tropical Fevers – Under recognised problem
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Introduction: Hemophagocytic lymphohistiocytosis (sHLH) is a clinicopathologic syndrome characterized by prolonged fever, cytopenias, organomegaly, histiocytic infiltration of multiple organs and/or a high CD25 level which is either a result of genetic mutations (primary) or systemic illnesses like infections, autoimmune or malignancies (secondary). Much of literature available today is for primary HLH, very limited is known about HLH secondary to tropical fevers.

Methodology: 534 tropical fever cases were screened over a period of 2 years and 178 cases were included based on clinical suspicion of HLH. Fever days, temperature, immunosuppressed state, hematoglyma, splenomegaly, AST, HB, TLT, Platelet counts, Ferritin levels and triglycerides were taken into account and H Score was calculated to diagnose HLH. H Score was estimated in randomly chosen 80 subjects by ELISA method. A H Score of 185 and above was considered diagnostic of HLH.

Results and discussion: 11.2 % (20/178) patients with tropical fevers developed HLH (Dengue: 18, Malaria: 1, Viral Hepatitis: 1). There is a suggestive correlation between H score and days of hospital stay, platelet count, total count, organomegaly, serum ferritin, triglyceride, AST and soluble CD25 levels. CD25 value of 10435pg/ml was highly diagnostic of HLH in tropical fevers with 100% sensitivity and 100% specificity. Patients with tropical fever who survived was assessed in group with the natural history of the disease in the form of organomegaly and current cytopenias will need a serious workup for HLH in the form of soluble CD25 testing. Soluble CD25 can be taken as a single best test in diagnosis of HLH.

Conclusion: Soluble CD25 can identify the subgroup of patients with tropical fever who may improve with steroids since the underlying pathogenic mechanism is the profound inflammatory state of HLH.

Evaluation of Thrombocytopenia in Various Common Infections
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Aims and Objective: To study etiology, severity, complications and mortality due to thrombocytopenia in commonly encountered infections in a tertiary care hospital.

Material and Methods: This was a hospital based, observational descriptive study. About 310 patients of thrombocytopenia, with platelet count < 20,000/µl, were included in the study.

Observations and Results: The study revealed that mortality (37.4%) of patients was in age group of 21 to 30 years, amongst whom 65.2% were males and 34.2% were females. Dengue fever (50.9%) was found to be the most common cause of thrombocytopenia followed by malaria (17.1%), scrub typhus (16.1%), HIV (4.5%), sepsemia (2.9%) and enteric fever (2.6%). Very severe thrombocytopenia (platelet count < 20,000/µl) was seen in 47.1% had severe thrombocytopenia (20,000-50,000/µl) in 25.8% patients had moderate thrombocytopenia (50,000-1,00,000/µl) and asymptomatic thrombocytopenia (> 1,00,000/µl) was seen in 3.9% patients. 50.3% patients presented with bleeding manifestations of which petechial rash (15.3%) was the most common. Mortality was 3.5% which was higher in patients with very severe thrombocytopenia (< 20,000/µl), in females, in patients of P. falciparum malaria, scrub typhus and those having mixed infections.

Mycoplasm pneumonia with Extra Pulmonary Manifestations
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Introduction: Mycoplasma pneumonia is atypical bacteria that manifests as respiratory tract infections which may be as mild as trachoma to severe or even as pneumonia.It can also manifests with extra pulmonary manifestations including hepatic,neurologic,dermatologic,c ardiovascular,rheumatologic and hematologic due to disseminated infection.

Case Report: 45 yr female agriculturer presented with fever for 13days,cough,sob for 5days.Admitted in local hospital took inj cefaperazone and sulbactum for 5days and referred here.On general examination icterus present vials : temp-100 F, respiratory rate-38/min, saturation-96% room air. On systemic examination bilateral crepitations heard. On evaluation routine investigations were normal except platelet-90,000.ESR-80mm in 1hr. Total bilirubin-3.5mg/dl.Chest x-ray-patchy opacity right midzone,bilateral pleural effusion.Ct chest-multifocal consolidation in bilateral lung fields predominantly upper lobe,bilateral pleural effusion. Direct coombs-positive.LDH-632.Blood,sputum cultures were sterile.In view of bilateral pneumonia,positive direct coombs,Mycoplasma suspected and confirmed by mycoplasma IGM serology-positve(11) patient treated with inj clarithromycin 500mg IV 12 ihr hourly for 7 days and discharged. 1 month Followup showed her Hb improved to 12.50gms%,direct coombs was negative.

Discussion: We report a case of mycoplasma pneumonia presenting as bilateral pneumonia,hematologic manifestation as self limiting cold agglutination is feature of mycoplasma pneumonia,cause not clear.It has been postulated that antibodies are directed against I antigen on the red blood cell. Complement mediated immunoadherence mediated hemolysis which can be diagnosed by increased indirect biliirubin and LDH and decreased haptoglobin,organism is isolated from the culture which can be confirmed by serological tests or PCR.

Conclusion: Mycoplasma pneumonia with extrapulmonary manifestations is rare. Hematologic
Fetal Chicken Pox - A Case of Primary Varicella Infection with Fulminant Hepatic Failure

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Introduction: Chicken Pox is a common, mostly benign infection of childhood and adolescence. It is caused by Varicella Zoster virus which is a double stranded DNA virus belonging to the family Herpesviridae. It has a more severe presentation when it occurs in adults and immunocompromised individuals.

Mild hepatitis is not uncommon in patients with primary varicella infection. However, fulminant liver failure is very rare and there are only a few reported cases.

We present a young, morbidly obese, diabetic gentleman who presented with chicken pox and succumbed to the fulminant hepatic failure that followed.

Case Summary: A 29 year old morbidly obese gentleman with uncontrolled diabetes presented to the emergency with severe abdominal pain, nausea, generalised weakness. Examination revealed normal vital signs with cardiovascular and respiratory systems being unremarkable; the abdomen revealing mild hepatomegaly and tenderness in the epigastric region. Initial investigation revealed raised transaminases without hyperbilirubinemia and markedly raised HBA1c.

The patient developed a papulovesicular rash on the third day of admission and was diagnosed with chicken pox on the basis of serology and tanaz smear. Antiviral therapy was initiated. The patient went on to develop fulminant hepatic failure, multi-organ dysfunction; his condition deteriorated rapidly, culminating in his death. In our view, his morbid obesity, uncontrolled diabetes mellitus and probable NASH contributed to the fatal outcome.

Discussion: Chicken pox is a common infection in the developing world.

Most cases of chicken pox follow a benign course. However, a few of them are associated with certain complications.

Hassan et al studied 102 patients with Varicella and found the following complications

- Raised SGPT levels (51%)
- The levels were greater than 10-folds of normal value in 4.9%
- Thrombocytopenia (42.1%)
- Varicella pneumonia (28.4%)
- Skin infections (25%)
- Septicemia (10.7%)
- Encephalitis/Meningitis (8.8%)
- Acute Respiratory Distress Syndrome (ARDS) (6.8%)
- Acute renal failure (2.9%)
- Acute hepatic failure (1.9%)

Hepatic dysfunction is common in chicken pox. The patients with hepatic dysfunction also have high frequency of involvement of the other organs leading to increased morbidity and mortality rate.

Pushpavani et al and Roque-Afonso et al each reported a case of acute liver failure in patients on steroids for asthma and sinusitis respectively. The latter case could be saved due to timely liver transplant.

Most reported cases with acute liver failure were immunocompromised. Only 2 cases have been reported to have survived after liver transplantation.

Okamoto et al reported lower cell mediated immunity to varicella virus in diabetics as compared to healthy individuals.

We believe uncontrolled diabetes mellitus and morbidly obesity were responsible for lower immunity in our patient, which predisposed him to severe hepatic injury culminating in his death.

Conclusion: Acute Liver failure is a very rare complication in primary varicella infection. Very few cases of such an occurrence have been reported.

Majority of these cases were fatal. Immunocompromised patients due to HIV infection, corticosteroid use, haematological malignancies, bone marrow or solid organ transplant, have more risk of developing acute liver injury in primary varicella infection.

Competing interests: obesity, diabetes and fatty liver may also contribute to the incidence of acute liver failure.

Timely antiviral therapy and liver transplantation may prevent the fatal outcome.

Electrolyte Abnormalities in Patients with Dengue Infection in a Tertiary Care Teaching Hospital in Southern India

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Introduction & Objectives: Dengue fever is an acute febrile illness, caused by a flavivirus, and is transmitted by Aedes aegypti and Aedes albopictus mosquitoes.

The objectives of this study were:
- To assess serum sodium and potassium levels in adult patients with dengue and dengue hemorrhagic fever
- To correlate the electrolyte abnormalities in patients with dengue infection with the severity of the illness

Materials & Methods: 95 patients admitted to the medical wards and casualty of JIPMER with confirmed dengue infection (by N51 antigen test or IgM antibody test) were included in the study after obtaining written informed consent.

Based on clinical examination, the severity of illness was graded as uncomplicated dengue fever (DF) or dengue hemorrhagic fever (DHF) graded as I, II, III & IV. Hemoglobin, hematocrit, platelet count, serum sodium and potassium were also noted.

One way ANOVA test was used to compare the electrolyte levels with severity of dengue infection. Chi-square test was used to compare the categorical variables.

Results: Hyponatremia (36%) and hypokalemia (34%) were found to be commonly present in patients with dengue infection. However, only hypokalemia showed a significant correlation with the severity of the illness.

Conclusion: Hyponatremia and hypokalemia are common electrolyte abnormalities in dengue patients, possibly due to vomiting and fluid loss.

Clinical and Laboratory Profile of Scrub Typhus in Manipur Defense Forces Hospital

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Objective: The present study was done to ascertain the presentations of Scrub Typhus in defense forces hospital in Manipur and to compare the clinical & laboratory features among patients with or without complications in scrub typhus.

Methods: A total of 16 patients of Scrubs typhus admitted to Medical wards were included in the study. A detailed history as well as general and systemic clinical examinations were carried out. Hematological profiles, biochemical investigations, CCRX & USG abdomen were done on admission and were followed daily or alternate day. Lab diagnosis of Scrub typhus was established by Immunofluorochromatography. Patients were classified as Scrub Typhus without complication or with complications.

Results: Of 16 patients, 9 were positive. In 8 patients, 5 had complications. The patients were classified as Scrub Typhus without complication or with complications.

Clinical and Laboratory Profile of Scrub Typhus

- Total patients: 16
- Age: 18 - 68 years
- All patients were males
- All the patients were residents of Manipur
- All the patients were admitted to the hospital in the 1st week of illness.
- On examination, patient was Afebrile, vitals were stable; with no evidence of cardiopulmonary decompensation.
- USG abdomen showed enlarged left kidney with Anechoic cystic lesion measuring 10*8cm with multiple daughter cysts.
- CT abdomen showed 10cm with well defined hydatid cystic lesion noted arising from upper pole of left kidney with multiple daughter cysts of varying sizes; suggesting a hydatid cyst. Anti
Echinococcal antibodies were negative. Left Nephrectomy was effective, but given a percutaneous course of Albendazole with a view to sterilize the cyst preoperatively and to decrease the risk of recurrence of the cyst post-operatively. Routine blood investigations were usually normal except for eosinophilia, which is found in 50% of the cases. The kidneys have a more important place in the preoperative diagnosis of renal hydatid disease. Though hydatidosis is not uncommon among the rural population, isolated primary renal hydatidosis still remains a rarity.

**A Multicentre, Open Label, Randomized, Comparative, Parallel Group, Active-Controlled, Phase III Clinical Trial to Evaluate Safety and Efficacy of Arbekacin Multiple Dose Injection Versus Vancomycin Injection in Patients Diagnosed with MRSA Infection**

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**Introduction & Objectives:** Increasing resistance to currently available antimicrobials has led to the development of new antimicrobials. Arbekacin is aminoglycoside antibiotic primarily used in Japan and Korea for the treatment of infections caused by multi-resistant bacteria including Methicillin resistant Staphylococcus aureus (MRSA). However, there is no published data available for use of Arbekacin in Indian patient population, thus the present study was conducted to evaluate the safety and efficacy of Arbekacin in Indian population.

**Materials and Methods:** The study was a phase III, multi-centre, open-label, randomised comparative, active control study. Subjects with microbiologically confirmed MRSA infection were admitted and treated with either Arbekacin sulphate 200 mg OD or Vancomycin hydrochloride 1000 mg BD both as IV. Clinical and microbiological cure were evaluated at various time points during the study period.

**Results:** Total 162 patients were randomized in two treatment groups (81 patients in each group). Out of these microbiologically confirmed MRSA patients, 153 were admitted and treated with either Arbekacin or Vancomycin. Both Arbekacin and Vancomycin were well tolerated by the patients during the study period.

**Discussion:** Arbekacin can be considered as safe and effective alternative to vancomycin in the management of MRSA infections.

**Conflict of Interest:** Alkem Laboratories Ltd. Mumbai has sponsored the study. The authors are employees of Alkem Laboratories Ltd.

**A Rare Case of Disseminated Cysticercosis**

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**Introduction, Aims & Objectives:** Cysticercosis is a common tropical disease caused by Cysticercus Cellulosae, larval form of Taenia solium. DCC is an uncommon manifestation as a result of dissemination of embryos from intestines via hepatoportal system to various tissues and organs. We present a case of disseminated cysticercosis with diabetes mellitus and hypertension.

**Case Report:** A 40y male Pt resident of DYV, K.A. farmer by occupation presented with complaints of: Recurrent seizures, headache & multiple swellings all over the body since 2y.

**On Examination:** Multiple pea sized subcutaneous nodules all over body esp. over the trunk, extremities & abdomen were present. Vitals-stable. CNS- normal. Other systems were normal.

**Diagnosis:** Based on above findings and DEL BRUTTO ET AL criteria, patient was diagnosed as Disseminated Cysticercosis.

**Discussion:** Disseminated Cysticercosis is an uncommon presentation caused by dissemination of embryo of Cysticercus to various tissues and organs of the body especially striated muscles, subcutaneous tissues, brain or eye. Clinical features depend mainly on location of cyst, burden of cyst, Pt reaction. Presence of either 2 major criteria or 4,1 minor criteria or 4, epidemicological criteria or absolute criteria required for definite diagnosis as proposed by DEL BRUTTO ET AL. Patient fulfilled the criteria. Our Patient was managed with albendazole, steroids, oxcarbazepine & discharged in a stable condition. His f/u was uneventful.

**Conclusion:** DCC should always be kept as a D/D when a Patient presents with subcutaneous swellings. Intramuscular swellings & seizures, this condition is treatable.

**Hepatitis in Dengue Fever and its Impact on Hospitalisation Stay and Bleeding Outcomes in a South Indian Population**

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**Introduction & Objectives:** Dengue in its various modes of presentation has found to have some effect on liver function. This study was conducted to correlate hepatitis in dengue and its impact on duration of hospital stay, bleeding manifestations and platelet count.

**Materials and Methods:** This prospective randomized study was done on 200 patients in age group of 2 to 75 years including both sexes with confirmed to the predetermined inclusion and exclusion criteria. Investigations included microscopic examination for transaminase (AST) and alanine transaminase (ALT). Degree of liver involvement bases on transaminase levels were classified in three groups.

**Results:** Out of 200 cases, 65% were diagnosed as dengue fever, 24% as dengue hemorrhagic fever (DHF) and 11% as dengue shock syndrome(DSS). On assessment of AST levels, it was observed that those in Grade C group showed higher propensity towards increased duration of hospital stay and bleeding manifestations(72 & 52%). However, though 30% of Grade C in the ALT group developed bleeding manifestations, duration of hospital stay remained almost equivocal among the other grades.

**Conclusion:** Liver involvement in the form of elevation of transaminase enzymes is quite common in dengue infection. Serum AST more than ALT may be a useful surrogate marker to bleeding outcome and duration of hospitalisation in patients with dengue patients.

**Clinical and Microbiological Profile of Urinary Tract Infection in Diabetic Patients**

Arpit Kapoor1, RS Mishra2, Sujet Jha3, Bansidhar Tara1
1Dharmshila 3rd Year Resident, 2Associate Director, Department of Internal Medicine, Max Super Speciality Hospital, Saket, New Delhi; 3Director, Department of Microbiology, Max Super Speciality Hospital, Saket, New Delhi

**Introduction & Objectives:** To determine the clinical pattern of urinary tract infections in diabetic patients & to study the pattern of microbial susceptibility amongst the isolated microorganisms.

**Materials & Methods:** The prospective observational cross sectional study involving 384 patients full filling the various inclusion exclusion criteria were selected & studied for the purpose of the study.

**Results:** The study showed that the classical features of UTI may not always be present in diabetic patients due to various factors, hence index of suspicion should be high to diagnose the condition especially in elderly patients. The emergence of multi drug resistant microorganisms among both the Gram positive & negative organisms is also an cause of worry. The incidence of isolation of fungus was also high & anti fungal resistance was also high among the isolates.

**Conclusions:** Rampant & indiscriminate use of antibiotics has led to emergence of multi drug resistant species of microorganisms which are getting increasingly difficult to manage and leading to higher morbidity & mortality.

**Clinical, Demographic and Biochemical Profile of Rickettsial Infections from a Tertiary Care Hospital**

Varun Venugopal, Geetha Philips, Sonya Joy
Aster Medcity, Kochi, Kerala

**Introduction:** Rickettsial infections are caused by bacteria that commonly presents as a febrile illness with variable spectrum of clinical manifestations. Typhus and scrub typhus are the major causes which present with fever.

**Materials & Methods:** In a prospective study of 200 patients in the age group of 2 to 75 years with dengue patients.

**Results:** When a patient presents with subcutaneous swellings, intramuscular swellings and seizures, this condition is treatable.

**Conclusions:** The management guidelines to treating SA infections are clearly defined by IDSA and NHS. This case highlights the significance of host and pathogen factors contributing to clinical outcome and to remind physicians of the devastating infective potential of MSSA.

**The PUO Conundrum - Revealing a Slow to Grow Culturist A Case of PUO not to Neglect – Neurobrucellosis**

Pooja Venugopal, Geetha Philips, Sonya Joy
Aster Medcity, Kochi, Kerala

**Introduction:** Brucellosis is a multisystem disease that commonly presents as a febrile illness with variable spectrum of clinical manifestations. Neurobrucellosis presents as a complication of systemic brucellosis. Although neurobrucellosis can present with meningoencephalitis, cerebellar signs & manifestations; this patient presented only with fever.

**Case Report:** A 33 year old DJ, with extensive travel history; contact with pets and ingestion of meat, dairy products; presented with intermittent fever since 2 months; associated with chills, myalgia, arthralgia, headache and weight loss of 6kgs. He was febrile, malnourished with bilateral clubbing, tender lymph nodes, and ulcers on the right leg. Inflammatory markers were elevated. Widal, Dengue, Leptospira, HIV ELISA, IgM toxoplasma were negative. ECHO, MRI and PET were normal. First blood culture grew coagulase negative Staphylococci which was a contaminant. Lumbar Puncture revealed elevated protein, normal glucose and was predominantly lymphocytic. CSF culture grew Brucella melitens. Soon after, the 2nd and 3rd blood cultures, after 5-7 days, also grew Brucella melitens.

**Discussion:** The diagnosis is made by culture of blood, bone or skin biopsy specimens. Most blood cultures are positive between 7-21days. Serum agglutination and ELISA are common serological tests. Brucella agglutination test with a fourfold or greater rise in titre in 4 weeks highly indicates brucellosis.

**Conclusion:** Neurobrucellosis is diagnosed by either both symptoms and signs that are consistent; isolation of brucella from CSF; presence of lymphocytosis, increased protein, decreased glucose in CSF; or by diagnostic findings in cranial MRI or CT. This patient was treated with doxycycline, rifampin and ceftriaxone until the CSF become negative.

**Hurdles to Managing a Case of MSSA : A Clinical Nightmare**

S Bhattacharjee, G Philips
Aster Medcity, Kochi, Kerala

**Introduction:** Staphylococcus aureus (SA), the most virulent of all bacterial species, has and rightly described to be a cause of malignant infections. Its versatility for invading any tissue evades a range of immune responses making it a major cause for morbidity and mortality worldwide.

With the current focus being on methicillin-resistant SA, the hurdles to management of methicillin - susceptible SA (MSSA) are underestimated and often overlooked.

Here, we present a case of MSSA, a probable skin contaminant transforming into an invasive infection following a fall and later progressing to Sepsis with MultiOrgan Dysfunction (MODS), inspite of culture appropriate antimicrobial therapy.

**Case Report:** 79 year gentleman, presented with fever and altered sensorium. He had a history of injury to the knee 3 weeks prior to current illness, subsequently operated and culture from knee was negative. But blood cultures now, confirmed MSSA blood stream infection (BSI). He soon progressed into sepsis with MODS - Septic arthritis, Lobar Pneumonia and possible Infective Endocarditis, despite being on Daptomycin and Cefazolin. But, patient did not respond to the treatment and unfortunately succumbed to infection.

**Discussion:** In our scenario, a precedent trivial injury progressed to septic arthritis and subsequently to sepsis and ultimately death, which might be due to progression of infection to involve a more serious organ such as the heart in the form of an infective endocarditis, which could not be ascertained due to poor underlying cardiac function.

**Conclusion:** The management guidelines to treating SA infections are clearly defined by IDSA and NHS. This case highlights the significance of host and pathogen factors contributing to clinical outcome and to remind physicians of the devastating infective potential of MSSA.

**Postgraduate student, “Professor of Medicine, "Assistant Professor of Medicine, Vijaynagar Institute of Medical Sciences, Ballari, Karnataka**

**Introduction:** Rickettsial diseases are unique in various aspects. The mortality though rare account for more than all infections put together. This group of infections can be classified into spotted fever, typhus, scrub typhus and miscellaneous groups. As there are very less studies on these infections in adults from south India, this study was planned and performed.
A Review of Concurrent Infection with Dengue
BL Avinash, Vasantha Kamath
Medical College and Research Hospital, P.O. Hoskote, Karnataka

Introduction: Acute undifferentiated febrile illness is the most common presenting symptom during the monsoon season. Dengue infection rates are highest during these seasons, co-infections of dengue with enteric, malaria, scrub typhus, chikungunya and leptospirosis are seen in endemic areas. Concurrent infection with two agents can result in an illness having overlapping symptoms creating diagnostic dilemma with more complications.

Aims & Objectives: To study various coinfections of dengue fever, their clinical manifestations and complications.

Materials and Methods: All cases of dengue with coinfection (rickettsiae, enteric, malaria, chikungunya), with positive serology are considered for the study from MVJ Medical College from the period of June 2017 to February 2018.

Results: In our study a total of 532 acute febrile thrombocytopenia cases and 56 had dengue with coinfection, most cases of coinfection are from Kolar belt, of which most common was with Rickettiaeia 26(46.4%), with typhoid 15 (26.2%), with malaria 9(16%), with chikungunya 6(10.7%). Patients having Dengue with Rickettsial coinfection presented with high grade fever(76.9%) with jaundice(34.6) and bleeding manifestations(92%), dengue with malaria presented with bleeding(51%) manifestation and myositis (22%), dengue with chikungunya had arthralgia(100%) and morning stiffness (22%).

Conclusion: Concurrent coinfection is not uncommon and presents with overlap symptoms creating diagnostic dilemma. Timely initiation of treatment and close monitoring is advisable to avoid complications.

Hepatology
Directly Acting Antiviral (DAA) Drugs for Hepatitis C Virus (HCV) Infection are Highly Efficacious and Safe in Real Life: Experience from a Tertiary Care Centre of North India
Ajay Kumar1, Amar Deep2,3, Sumit Rungra3, Suchit Swaroop, Virendra Atam1, KK Saxwan1, GK Gupta1
1Department of Medicine, King George’s Medical University, Lucknow, Uttar Pradesh; 2Epi & Public Health Lab, Department of Zoology, Lucknow University, Lucknow, Uttar Pradesh; 3Department of Medical Gastroenterology, King George’s Medical University, Lucknow, Uttar Pradesh

Introduction and objectives: Since its discovery, treatment of HCV has undergone extensive changes. Antiviral treatments and sustained virological responses have also improved on the back of interferon monotherapy to the current all-oral regimes using DAAs. We aimed to analyse our experience for last 4 years in treatment of hepatitis C with the currently available antivirals in terms of SVR at various time-points, new onset decompensation, hepatocellular carcinoma (HCC), mortality and side effects.

Materials & Methods: We prospectively collected and analysed data of all anti-HCV positive patients from outdoor clinics of our department in the form of history and examination, routine blood tests, HCV-RNA at the time of start of antivirals, at end of treatment and every 3 months thereafter, HCV genotype, ultrasound abdomen, upper G.I. endoscopy and alphaprotein.

Results: From 2014 to 2018, a total 520 patients were detected to be anti HCV positive. 276 (53%) were male. 353 (68%) had detectable HCV RNA. Among these, 43 (12%) patients had cirrhosis and 310 (98%) had chronic infection. Among these 353 patients29 (8%) received Sofosbuvir plus Ledipasvir, 73 (20%) Sofosbuvir plus Ribavirin, 115 (32%) Sofosbuvir plus Ribavirin plus Ledipasvir and 106 (30%) Sofosbuvir plus Velpatasvir. All except one achieved SVR. No new onset HCC was detected. 72 (2%) patients developed decompensation or worsening cirrhosis. None of the chronic hepatitis C had mortality while 3 (7%) cirrhotics died. One patient developed self-limiting erythematous rash.

Conclusions: DAAAs are highly efficacious and safe for the treatment of chronic hepatitis C even in real life scenario.
Patients with renal parenchymal or obstructive disease who meet HRS criteria and reduces the cost of management of esophageal varices. Therefore, this reduces the economic burden on the patients who require prophylactic endoscopic management.

A study on etiological profile and precipitating factors of hepatorenal syndrome

Gorrepati Geetika, Sri Harsha Jagadguru Jayadeva Munugarajendra Medical College, Davangere, Karnataka

Background: Hepatorenal syndrome is a unique form of functional renal failure due to diminished renal blood flow which occurs in histologically normal kidneys seen in advanced liver disease

Objective: to study the etiological profile and precipitating factors of hepatorenal syndrome.

Material and Methods:
Study design: prospective study
Study Subjects: Patients with cirrhosis of liver admitted in ICU’s and medical wards of Jagadguru Jayadeva Medical College, Davangere, Karnataka
Study Sample: 500 patients studied prospectively
Study period: oct 2017 –june 2018

Inclusion Criteria:
1. Patients with chronic liver disease and declining renal functions
2. Patients who meet HRS criteria\n
Exclusion Criteria:
1. Patients with pre-renal failure
2. Patients with renal parenchymal or obstructive pathology
3. Patients using nephrotoxic drugs

Results: Percentage of patients who met IAC revised criteria of HRS type 1 were 73% and HRS type 2 in 27% Alcoholic etiology: 52/90
Viral etiology: 21
Combined etiology: 10

A Study on the Extrahepatic Manifestations of Nonalcoholic Fatty Liver Disease
Kumar AS, Gopakumar R, Paul TR, Raj M
Little Flower Hospital and Research Centre, Anganamaly, Kochi, Kerala

Introduction: Non-cirrhotic portal fibrosis is a syndrome of obscure aetiology. It is characterized by obliterator portal venopathy leading to portal hypertension, massive splenomegaly and well tolerated episodes of varical bleeding in young adults, having near normal hepatic function.

Report of the Case: A 28 years old male patient presented with episodes of 2 black coloured stool for last 2 days along with dull aching pain in left upper abdomen. Patient had history of 3 to 4 episodes of black coloured stool in last 2 years.

Discussion: Physical examination reveals that he has massive splenomegaly and his spleen is palpable up to 11 cm below the left costal margin. Liver is not palpable and there is no peripheral stigmata of chronic liver disease. Anemia and ascites are also absent. Patient is non-ethanolic. His Liver function test is normal. HbAsg, Anti-Hcv and HIV status are negative. Complete blood count shows microcytic hypochromic anaemia. Ultrasonography of whole abdomen suggests dilated portal and splenic veins and multiple collaterals at the splenic hilum. Upper GI Endoscopy reveals esophageal varices. Liver biopsy shows thrombosis and sclerosis of portal vein and its branches. Respiratory, CNS, CVS all systems are within normal limit.

Conclusion: NCPF has been reported from all over the world, with maximum cases reported from India. World-wide it accounts 3-5% and in India 15-20% of cases of Portal hypertension with male predominance of 2.1 to 4.1. It is a disease of young adult from low socio-economic background. The mean age of onset varies from 25 to 35 years. Prognosis is excellent. 5 years survival rate is >95%.
approaches can be separated into noninvasive testing i.e., blood testing, physical examination, and imaging) and invasive approaches (i.e., liver biopsy). The purpose of the study is to assess liver fibrosis using Fibroscan, and to compare these results to the use of FIB-4 and NFS scores, AST/ALT ratio and the stages of fibrosis.

**Materials and Methods:** All the patients admitted to the medical ward during the study period (June 01, 2018 to January 30, 2019) diagnosed to have NAFLD by ultrasonographic examination will be included in the study. Demographic data will be collected, including sex, age, serum alanine aminotransferase levels (ALT), serum aspartate aminotransferase levels (AST), and platelet counts. Disease will be determined. Fibroscan will be done and the stages of fibrosis (F0-F1: -1.7, F2-F3: -7.1 – 8.7, F4-F5: -8.8 -10.4, and F4 ≥ 10.4) will be defined in kPa. For each patient, the AST/ ALT ratio will also be measured. The results of APRI and FIB-4 will be compared with the Fibroscan fibrosis scores.

**Results and Conclusion:** will be discussed at the time of presentation.

**Diagnostic accuracy of non-invasive test FIB-4 (Fibrosis -4) in detecting advanced fibrosis – A validation study among South Indian patients with non-alcoholic fatty liver disease**

Charles Panackel, Joe Francis, Rommel S, Mathew Jacob, Nousheef M, Ismail Siyad, Jeffrey George, Nita John, G N Ramesh

**Aim:** We aimed to assess the diagnostic accuracy of FIB-4 as non-invasive test for advanced liver fibrosis in a cohort of south Indian population with NAFLD.

**Materials and Methods:** All patients with biopsy proven NAFLD who attended our liver clinic between 1st January 2016 and 30th June 2018 were included. Diagnosis of NAFLD was based on histological criteria for NAFLD by non-alcoholic steatohepatitis clinical research network (NASH CRN). Fibrosis scored on NASH CRN criteria stages 0-4. Stages 0-2 were considered as mild/moderate fibrosis and stages 3-4 as advanced fibrosis. On the basis of the histology findings, the studied patients were divided into 2 groups: mild/moderate fibrosis, and advanced fibrosis.

Demographic and biochemical parameters were recorded in all patients. FIB-4 score was calculated for each patient using the calculator (http://ghep.org/calculators/hepatology/fibrosis-4-score/). The results were compared with the liver biopsy. A FIB-4 score more than 2.67 was taken as cut-off to predict advanced fibrosis based on data from previous studies. Statistical analysis was conducted using SPSS 19.0 software (SPSS, Inc., Chicago, IL).

**Results:** A total of 113 patients well characterized patients (Mean age 49.23±12.07 years; Male: female= 62:51) were studied. Mean BMI was 26.41±6.30 and 72 (63.7%) patients were obese (BMI>25). Patients with advanced fibrosis were more likely to be older and males. Patients with advanced fibrosis had lower platelet count, higher AST, lower albumin and lower AST/ALT ratio. DM was seen in 44(38.9%) patients and was more in females. 50 (44.24%) had advanced fibrosis. Patients with advanced fibrosis were more likely to be older and males. Patients with advanced fibrosis had lower platelet count, higher AST, lower albumin and lower AST/ALT ratio. DM was seen in 44(38.9%) patients and was more in females. 50 (44.24%) had advanced fibrosis.

**Statistical analysis:**

**Table 1**

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<th>N=50</th>
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<td>SD</td>
</tr>
<tr>
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<td>49.23±12.07</td>
<td>72.01±12.49</td>
</tr>
<tr>
<td>Female</td>
<td>49.17±12.07</td>
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</tr>
<tr>
<td>Gender</td>
<td>Male</td>
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</table>

**Conclusions:** The FIB-4 score has a good diagnostic accuracy in detecting advanced fibrosis in NAFLD patients. This simple, non-invasive test can substitute liver biopsy to identify high risk patients in busy clinics who need further investigations and follow up.

**A Clinico Epidemiological Study of Cirrhosis of Liver**

Sagar Nana Kamble, S Nelson
NSCB, Medical College & Hospital, Jabalpur, Madhya Pradesh

**Introduction and Objectives:** Cirrhosis of the liver is a degenerative disease that occurs when healthy cells in the liver are damaged and replaced by the scar tissues; the organ loses its capability to function properly. Severe damage can lead to liver failure and mortality in patients of liver cirrhosis. The liver works to detoxify alcohol, drugs and other harmful chemicals and substances from the body. The objective of our study was to study epidemiology of cirrhosis of the liver with emphasis on the outcome of cirrhosis of the liver and to find out mortality associated with cirrhosis of the liver in tertiary care hospital.

**Materials and Methods:** A retrospective and prospective observational study was conducted on 200 patients in the Department of Medicine. Retrospective Data for last 2 years, including OPD and IPD patients and prospective data from March 2017 to March 2018 was collected & patients were followed up for 3 months.

**Results:** Alcoholic cirrhotics predominated constituting about 55.0% of the study. Acutes was found to be present in 90.0% of the cases. There was no statistically significant interaction between death and sex. There was no statistically significant interaction between death and age group.

**Conclusion:** Alcohol predominated among all the etiology for liver cirrhosis. Alcohol was the major reason for majority of deaths in case of liver cirrhosis. Finally, MELD is a better predictor of mortality as compared to CTP score.

**Clinical Spectrum, Predictors and Short-term Outcomes of Spontaneous Bacterial Peritonitis (SBP) in Patients of Chronic Liver Disease (CLD) Attending a Tertiary Care Center in North-Eastern India**

Arpan Mitra, PK Bhattacharya, KG Lynnah, Bhuwap Barman
NEHRIMS, Shillong, Meghalaya

**Introduction and objectives:** SBP defined by ≥250 neutrophils/mm³ of ascitic fluid or a positive ascitic fluid bacterial culture, in the absence of other diagnoses, is a life-threatening infection complicating cirrhosis. Data from the north-east on SBP in CLD is sparse. The purpose of this study is to analyze the clinical spectrum of SBP, its bacteriological profile and short-term clinical outcome.

**Materials and methods:** Prospective, observational, hospital-based study on patients of chronic liver disease. Patients with antibiotic therapy and/or peritoneocentesis in the past 4 weeks were excluded. All patients received empirical antibiotics after taking ascitic fluid samples for analysis.

**Results:** This study included 81 patients. The mean age was 47.34±13.41 years with male to female ratio of 4:6.11. Alcoholic liver disease was the etiology in 76.54% patients, 19.77% of patients had chronic hepatitis B, 10.24% of patients had chronic hepatitis C related and the rest (4.73%) were cryptogenic. SBP was seen in 32.09% (26/81) patients of whom 38.46% (10/26) had positive cultures of monomicrobial growth. Of patients with positive cultures, half (5 cases) were multi-drug resistant. 42.30% of SBP patients had a concomitant renal impairment. 53.84% of SBP patients had grade III-IV encephalopathy and 69.23% SBP had renal impairment. Majority of SBP patients were in Child-Turcotte-Pugh class C (76.92%). Mean serum creatinine was significantly higher in the cirrhotic patient, when bilirubin level is on lower side.

**Conclusions:** From this study it is concluded that transient elastography can be used as Non invasive tool for prediction of oesophageal varices varies more accurately in cirrhotic patient, when bilirubin level is on lower side. The reasons underlying the high stiffness is are not known but may possibly because of increased inflammation and edema as bilirubin may act as chemical irritant to liver tissue.
in patients of SBP than those without (1.83±0.64 mg/dL vs 0.94±0.34 mg/dL, p<0.05). Mortality in patients with SBP was significantly higher than those without SBP (34.61±21.81, p<0.05). Further, mortality in patients with culture positive SBP was significantly higher than those who were culture negative (30.5% ± 21.5%, p<0.05).

Conclusion: SBP was found in approximately one third of patients with CLD and was associated with high morbidity and 30 day mortality. There is a common in culture positive SBP and had poorer outcome.

Anti-Tubercular Medication Induced Hepatotoxicity: a prospecive, observational study from a single centre
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Introduction & Objectives: With 3 of the four first-line drugs in treatment for TB being potential hepatotoxins, drug-induced liver injury (DILI) is a challenging problem faced by physicians and patients. The main aim of this study was to determine the frequency, features, and pattern of hepatotoxicity induced by anti-tuberculosis therapy.

Materials and Methods: This is a prospective case control study, performed at Narayana Hrudayalaya Multispeciality hospital, Bangalore for a period of 3 years. All patients diagnosed with tuberculosis and attending our outpatient department or admitted to ward were included in the study. Those who were treated with fixed drug combination or were on re-treatment with first line anti-tubercular drugs (ATT) were excluded. Liver function test was done prior to starting ATT and on day 3, day 7, day 15 and day 30. To define drug-induced hepatotoxicity, WHO criteria were used.

Results: A total of 128 patients were studied, out of whom 96 (76.2%) were males and 42 (32.8%) were females. The mean age was 43.01±16.97 (range, 17 – 78) years. Fifteen (11.7%) patients had a past history of TB. The majority were on Rifampicin Pyrazinoic acid (RPP) ATT (n=72; 56.4%) and the remainder were extrapulmonary TB. Fifteen percent (19 out of 128) patients developed drug-induced hepatotoxicity, the majority (7 out of 19, 37%) were below 30 years of age. Incidence of drug-induced hepatotoxicity was similar in both genders (11.6% vs 11-9%, p=0.143). Six patients had cholestatic pattern of injury, 7 had hepatocellular injury and 6 had mixed pattern of liver injury. According WHO criteria, 8 patients had Grade III hepatotoxicity and 7 had Grade II hepatotoxicity. Mortality and incidence of diagnosis of drug-induced hepatotoxicity started after ATT was 9.0±5.9 17. days. Earliest hepatotoxicity was diagnosed on day 3 and latest by day 39. Six patients developed cholestatic pattern of liver injury, out of whom 2 patients were re-challenged with INH/PZA and 4 patients were re-challenged with INH/RIF (along with other ‘safier’ ATT). No hepatotoxicity was noted after re-challenge.

Conclusions: Our study demonstrated the incidence and pattern of drug-induced hepatotoxicity. Younger adults less than 30 years were at risk of developing drug induced hepatotoxicity if DILI occurs, it usually develops around the 7th day after starting ATT, but may occur as early as 3rd day and as late as the 3rd month, suggesting that all patients should be monitored through the course of the intense phase for DILI.

Study of Platelet Count to Splenic Size Ratio in Patients with Cirrhosis of Liver and its Correlation with Esophageal Varices
Sajal Chiddarwar1, Manisha Thakur2
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Background: Cirrhosis and its complications related to portal hypertension are a major cause of mortality and morbidity. Encephalopathy is a required in each patient in order to detect esophageal varices. Non-invasive and cost-effective methods of such imaging in centres lacking facilities of endoscopy.

Aim: Study of platelet count to splenic size ratio in patients with cirrhosis of liver and its correlation with esophageal varices.

Methods: Platelet count, ultrasound abdomen to estimate splenic size and endoscopy was carried out in 70 patients. Patients who were already on beta blockers, who have already undergone TIPS and those on antiplatelet drugs were excluded. Patients were then then divided into two groups on the basis of presence and absence of varices.

Platelet count to splenic size ratio was calculated in each group patients. 

Results: Platelet count to splenic size ratio was significantly different in patients with esophageal varices as compared to patients without esophageal varices. By applying non-parametric curve a platelet count to splenic size ratio cut-off value of 130±0.847 was obtained which gave a sensitivity of 92.43% and specificity of 94.71%. The area under the curve being 0.976(95% confidence interval= 0.967-0.984)

Conclusion: Platelet count to splenic size ratio is a useful and cost-effective screening method to detect presence of esophageal varices in patients with cirrhosis of liver especially in centers which don’t have facility of endoscopy in a resource constrained country like India.

Dubin Johnson Syndrome- A Case Report
Varun Venkat Raghavan MS1, Gadwalkar Srikant R2, Ramamurthy P3, Umamaheshwari S4, Navshrey S 5 Kattimani6,
K Mansoor Ali7
Postgraduate Student, Professor of Medicine, Assistant Professor of Medicine, Vijayanagara Institute of Medical Sciences, Ballari, Karnataka

Introduction: Dubin Johnson syndrome follows a benign path and identification of this entity will reduce the panic in patients and over investigation by medical professionals for the cause of jaundice.

Case report: 17 year old boy born to non consanguineous couple presented with jaundice sine infantis since birth and on admission was on day 30. To define drug-induced hepatotoxicity, WHO criteria were used.

Discussion: Dubin Johnson syndrome is a genetic disorder characterized by conjugated hyperbilirubinemia that is inherited as an autosomal recessive trait. Dubin Johnson syndrome is suspected when a patient presents with jaundice since childhood and generalized myalgia. The child had jaundice (HB- 8.9 g/dl), conjugated hyperbilirubinemia (Total bilirubin-6mg/dL; conjugated bilirubin- 4.5g/dL) with liver enzymes mildly elevated (AST-226, ALT- 300). Renal function, serum copper, serum ceruloplasmin was normal. No K ring on slit lamp. Ultrasound abdomen shows chronic liver disease with no signs of portal hypertension. Liver biopsy showed dark brown coarse pigments which are iron negative (Perl’s stain) predominently in canalicular region suggested the diagnosis of Dubin Johnson syndrome.

Discussion (DS): A rare syndrome affecting liver with liver function abnormalities.

Results: Liver biopsy should be done in any child suspected of Dubin Johnson syndrome who presents with recurrent jaundice and blood panel showing conjugated hyperbilirubinemia.

Haematology
Mortellos Blotches: Search for a cause of echchymotic patches resulted in finding chronic disseminated intravascular coagulation secondary to metastatic cancer
Wasya Waseem Kabir, Ather Pasha, Suhail bin Ahmed
Department of General Medicine, Deccan College of Medical Sciences, Hyderabad, Telangana

Introduction: Prognosis of Disseminated Carcinoma of the Bone Marrow (DCBM) by solid tumours with DIC is very poor. In DCBM tumor cells metastases diffusely invade the marrow. Prostate, lung, breast metastases rarely implicated in non-hematological malignancies to metastasize to marrow, pancreatic cancer rarely metastasizes marrow. Hence patients with DIC are reported. Investigations finding cause of DIC ended in discovery of metastatic-cancer

Report: 56-90 y old man referred to our hospital for haematuria following cystoscopy. He had on/off liver cancer since 1 year. He presented with mucosal miosis, yellow eyes, multiple echchymotic patches on all limbs and melena since 20 days. H/S/O intake of indigenous medications. Lab investigations: Metabolically active multiple skeletal lesions & enlarged prostrate without metabolic activity. Right iliac bone marrow biopsy revealed metastatic adenocarcinoma of a primary likely prostate. Prostate biopsy-clear. Immunohistochemistry(HC) sent for confirmation showed likely involvement of biliary-pancreatic cells. The patient’s final diagnosis was metastatic cancer with diffuse bone metastases and chronic DIC. He succumbed to the disease approximately 10 days after admission to our hospital.

Discussion: Reported case had vast-echchymoses and biliary obstruction. His case showed decreased platelets, normal-slightly increased PT&APTT,decreased fibrinogen,increased LDH & D-dimer, peripheral smear-schistocytes,which confirmed chronic DIC. Investigations to find cause of DIC ended up in finding-metastatic cancer.

Other cases reported previously also presented in echchymoses, hematuria & gastrointestinal-hemorrhage.

Risk factors-DIC: older age, advanced tumor stage, &primary tumor necrosis. Considering this our patient was at risk of DIC.

Methimet of DIC:umorcells that express procoagulant factors on surface or possess rich thromboplastin. Other theory is the production of cytokines such as IL-6 & TNF.

Investigations for cause of DIC in our patient were suggestive for biliary-pancreatic cancer as total bilirubin & serum alkaline phosphatase were elevated (increased ferritin-suggested malignancy) &HC confirmed biliary-pancreatic cells.

DCBM-from solid cancer with DIC despite all treatments these patients will die soon.

Conclusion: Malignancies should be considered in cases of DIC in elderly men, in whom no underlying cause can be found to explain it.

Clinical Profile in Patients of Pancytopenia
Ravi Patel, Nilay Sathur
AMC MET Medical College & LG Hospital, Ahmedabad, Gujarat

Introduction & Objectives: Pancytopenia is a common haematological problem. It is suspected when a patient presents with pancytopenia and fever, in the absence of any other symptoms or signs.

Background: A prospective, observational study from a single centre
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Introduction: Standard treatment of mild to moderate iron deficiency anaemia is daily oral iron therapy. Studies have shown that daily dosing increases serum hepcidin and thus iron absorption from subsequent doses is decreased. This study was done to compare response from oral iron supplements given as daily dose versus as an alternate day dose.

Materials and Methodology: After ethical committee clearance and proper consent of the patients, we did a prospective, interventional randomised controlled trial on patients of iron deficiency anaemia divided into two groups. First group received 60 mg oral elemental iron as a single daily dose and the other group was given same dose on alternate days for 21 days. Primary outcome was correction of anaemia as assessed by hematocrit and haemoglobin. Secondary outcome was incidence of side effects. The other group was compared in both the groups. Side effects from the therapy were also evaluated.

Results: It was a preliminary study and 15 patients in each group were analysed. At the end of study (21 days), the mean increase in Haemoglobin level was significantly more in alternate day dosing group as compared to daily dosing group 1.58 ± 0.53 vs 0.41 ± 0.25 g/dL (p<0.001). The serum Hepcidin levels were increased more in daily...
dosing group as compared to alternate dosing group both at day 2(0.31±0.25 ng/ml) and day 31(1.76±0.29 vs 1.40±0.41ng/ml).

Conclusion: In iron deficiency state, providing iron supplements on alternate days optimises hepcidin levels as compared to daily dosing. Also, serum hepcidin levels are high in providing iron supplements on alternate days optimises hepcidin levels.

Kumaresh, Babuanand, Ramesh, Bharatiraja
KAPV Medical College, Trichy, Tamil Nadu

Introduction: Anaemia is passive killer in our nation contributing to 40% of medical illness related death both directly and indirectly. According to National Family Health survey 3 half of the Indian women and one third of the men are found to be anaemic. The objective of my study is to showcase the interesting various presentation of anaemia in a tertiary centre and to emphasis the burden of anaemia in our country.

Case report
Case 1: Gypsy Family
54 years old female, a gypsy with c/o pedal edema/ fatigueability/anaemia/edema right fibule for 1.5 yrs. On examination, heart rate of 78/min, BP-110/80mmHg Respiratory rate of 34 breaths/minute with bilateral extensive wheeze, and pallor. Her hemoglobin was 6.8, platelet count of 78,000. Absolute Eosinophil Count of 4076 cells/μL (8 months earlier eosinophil count was 10 cells). Peripheral smear showed normocytic normochromic anemia with hypogranular anaemia. Pulmonary function tests were normal. Serum markers for amyloidosis and hypoalbuminemia were negative. ANA, Anti ds DNA, Anti SS-A, Anti SS-B, ANCA, anti Jo-1 antibodies were negative. c-ANCA, p-ANCA, HLA-B27 were normal. A chest X-ray revealed a right sided pleural effusion. CT scan of the chest revealed a large right sided pleural effusion with thickened visceral and parietal pleura with no sign of compression or displacement of the lung. Echocardiography showed mild to moderate mitral regurgitation and a dilated left atrium. There was no evidence of heart failure. The patient was treated symptomatically and steroids were started. The patient showed dramatic improvement. As this case illustrates, Idiopathic Hypersplenism syndrome should be considered as a differential and is a diagnosis of exclusion in any patient presenting with prolonged anaemia for more than 6 months duration with skin lesions.

Seven wonders OF ANEMIA
Kumaresh, Babuanand, Ramesh, Bharatiraja
KAPV Medical College, Trichy, Tamil Nadu

Persistent Eosinophilia with Pallagroid Dermatitis- A Case of Idiopathic Hypersplenism Syndrome
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Hypersplenic syndrome is defined as a prolonged state (more than six months) of eosinophilia (greater than 1500 cells/μL), without an apparent etiology and with end-organ damage. We present a case of a 60 year old South Indian male who presented with complaints of breathlessness, pallor and was found to be anaemic for 1.5 yrs. On examination, heart rate of 78/min, BP-110/80mmHg Respiratory rate of 34 breaths/minute with bilateral extensive wheeze, and pallor. Her hemoglobin was 6.8, platelet count of 78,000. Absolute Eosinophil Count of 4076 cells/μL (8 months earlier eosinophil count was 10 cells). Peripheral smear showed normocytic normochromic anemia with hypogranular anaemia. Pulmonary function tests were normal. Serum markers for amyloidosis and hypoalbuminemia were negative. ANA, ANCA were negative. c-ANCA, p-ANCA, ANA were negative. c-ANCA, p-ANCA, HLA-B27 were normal. A chest X-ray revealed a right sided pleural effusion. CT scan of the chest revealed a large right sided pleural effusion with thickened visceral and parietal pleura with no sign of compression or displacement of the lung. Echocardiography showed mild to moderate mitral regurgitation and a dilated left atrium. There was no evidence of heart failure. The patient was treated symptomatically and steroids were started. The patient showed dramatic improvement. As this case illustrates, Idiopathic Hypersplenism syndrome should be considered as a differential and is a diagnosis of exclusion in any patient presenting with prolonged anaemia for more than 6 months duration with skin lesions.

A Study on Polycythemia - A Potential Thrombotic State
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Background: Thrombotic manifestations in Polycythemia are not uncommon as described in literature. These manifestations are commonly described with Polycythemia vera but we also see secondary polycythemia. They may range from digital ischemia to life threatening thrombosis of cerebral vessels and hepatic veins causing Budd Chiari syndrome.

Materials and Methods: Retrospective observational study
Study period: 2016 to 2018
Total cases - 20
Observations: Various presentations include Deep vein thrombosis, Pulmonary thromboembolism, Cortical vein thrombosis, Budd Chiari syndrome, Myocardial infarction, vascular migraine.

Results: Arterial thrombosis have grave prognosis than venous. Primary polycythemia is in increasing trend in young. JAK2V617F association has no significant influence on morbidity of the patient.

Conclusions: There should be high index suspicion of Polycythemia in young patients with thrombotic episodes to avoid unnecessary investigations.

Case Series on Hyperhomocysteinemia
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Case 1: 27 male patient non smoker, non alchoholic presented with chief complaints of headache and 3 episodes of vomitting,weakness of right upper limb and lower limb since 1 day.
On examination- vitals stable,power 0/5 in right upper limb and lower limb.
Investigations: routines: normal,2D ECHO - normal,CT brain:acute left MCA territory inacc,carotid Doppler: 78% stenosis in let carotid,58% stenosis in right carotid,heomocystine 34.6.

Case 2: 28 year male chronic smoker alchoholic presented with chief complaints of multiple seizure episodes involving left upper limb /f weakness of left upper limb since 1 day/b headache & a/w vomiting present preceding seizures.
On examination: vitals stable, power 0/5 in left upper limb.

Case 3 : 30 year male presented with chiefcomplaints of typical chest pain a/w shortness of breath since 12 hours.
On examination— vitals, normal, heart and lungs: clear.

Case 4 : 34 year male patient presented with swelling over right lower limb due to shortness of breath since 15 days, chest pain since 15 days.
On examination: PK- 120/min, heart and lungs : clear, right lowerlimb: calf tenderness +, Homans sign +
Investigations: routines: normal, PT- 23.2, APTT- 45.1, INR- 0.7, HOMOCYSTINE 34.6.

Case 5: A 30 year male, k/o CRHD with severe mitral stenosis status post mitral valve replacement on regular treatment with anticoagulants presented with chief complaints of sudden onset shortness of breath since 1 day.
On examination: raised JVP, vitals normal,heart and lungs clear.

Investigations: PT-INR-2,8, d dico: increased gradients across valve,serum homocystine:25.2

Introduction: The outcomes of Philadelphia positive acute lymphoblastic leukemia (Ph-ALL) have improved significantly after the introduction of tyrosine kinase inhibitors (TKI). The data is scarce on Ph-ALL from real-world settings with resource constraints.

Objective: To study the thrombotic outcomes and outcomes of Ph-ALL from real-world settings.

Methodology: This is a retrospective observational study wherein the data of all patients of Ph-ALL managed at a tertiary care center in North India over the last 14 years (2004-2018) were analyzed. All case records of the Ph-ALL were perused, digitalized and their survival statistics derived.

Results: Amongst a total of 611 ALL case records, 55 (9%) were Ph-ALL of which 51 cases with complete data were analyzed. The mean age of the patients was 31.241 years (range 3.76). Males constituted 64% and females 36%. Of these 47.05% received adult ALL (GMALL protocol), 29.4% received paediatric BFM protocol, and 23.5% received Hyper-CVAD. Relapse was seen in 22% of the patients. CNS disease was present in 17.6% of the patients. Only 19.6% of the patients were subjected to transplant. All patients of Ph-ALL of which 4% received high dose imatinib and 56% patients received dasatinib. A total of 19.6% patients succumbed to the illness at various stages of the therapy.

The cumulative overall survival at 1 year (1y-OS) was 95.68% with 3y and 5y OS being 93% and 89% respectively. The survival was not statistically different between patients with and without complex karyotype (p=0.52), based on site of TKI administered (Dasatinib Vs high dose imatinib) (p=0.76), males and females (p=0.41), risk category (p=0.41) or by the presence of CNS disease (p=0.21).

Conclusion: We have demonstrated in this study the improved outcomes of Ph-ALL who usually present late in resource constraint settings. There was no additional benefit of dasatinib over high dose imatinib in this cohort.

Multiple Myeloma- Real World Experience of Transplantation in Multiple Myeloma from a Tertiary Care Centre in North India
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Aims & Objectives: To study the outcomes of multiple myeloma patients post-transplant.

Patients & Methods: This is a retrospective analysis of all patients of MM (N=174) treated at a tertiary care centre in North India between 1 Mar 1999 to 27 July 2018 studied. The database of these patients was maintained prospectively by concerned treating physician. Statistical analysis was done using SPSS version 19.0.

Results: Median age of study population was 52 years (29-74). 71 % of the study population was males. 5 year overall survival (OS) was 72% which was comparable to a TMM (transplant related mortality) of 3.4%. 71% of the study population were males and there was no significant survival difference among either gender (P=0.1283).22 % of the patients had RA at diagnosis. The survival among patients with RA was significantly lower (56% Vs 80 % at 2 years, p value
A Journey to the diagnosis of Primary Systemic AL Amyloidosis
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Introduction: Amyloidosis is a rare heterogeneous disorder due to amyloid fibril deposition in various tissues causing isolated or multiorgan dysfunction. AL Amyloidosis presenting with gynaecoplatinosis in a rare presentation, so is cardiac Amyloidosis. Here, we present a case of AL amyloidosis with multisystem involvement.

Case Report: A 45 year old female presented with anaemia, jaundice and tachypnoea. Physical examination revealed pale skin, pallor, bilateral gross pitting pedal edema. Initial biochemical evaluation showed Normocytic-Normochromic anaemia (Hb – 7.4 gm/dl), Nephrotic range proteinuria, Hypoalbuminemia, Xray. Chest showed bilateral mild to moderate pleural effusion. UGI Endoscopy showed multiple large friable ulcers with irregular growth in the stomach. Gastric Biopy showed inflammation. FISH showed 3% IgG kappa light chain, showing congded amyloid deposits, Immunofluorescence was suggestive of AL amyloidosis. A transthoracic echocardiogram revealed normal systolic function and no pericardial effusion. Blood was sent for amyloid and renal, Cardiac and Marrow involvement and was started on chemotherapy and appropriate supportive therapy.

Discussion: AL amyloidosis is a fatal infiltrative disease. Symptoms are due to the fibril-forming Ig light chains in almost all tissues except CNS. Nephrotic syndrome is the most frequent presentation followed by cardiac involvement. Renal, Cardiac, Liver, Spleen, Peripheral and autonomic nerves are the other commonly affected organs. AL amyloidosis can be primary or due to underlying plasma cell disorders. Here we reported a rare case of primary systemic amyloidosis with Gastric, Renal, Cardiac and Marrow involvement.

Conclusion: The diagnosis of Amyloidosis can be lengthy due to its nonspecific manifestations, resulting in a delay in initiation of treatment thereby worsening prognosis. Hence a high index of suspicion is needed while evaluating a patient with vague non-specific symptoms.

Thalassemia Intermedia - Not an Uncommon Case of Hemolytic Anemia in Adults
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Introduction: Hemolytic anemia is very common in adults but one of the rarest cause is thalassemia intermedia. High index of suspicion is needed to diagnose a case of thalassemia intermedia.

Objective: To study the clinical profile of a case of thalassemia intermedia.

Methods: We did a clinical analysis of a case of thalassemia intermedia who presented with fever, chronic anemia and jaundice to OP. She had history of multiple blood transfusions in the past. Peripheral smear showed features of macrocytosis, hyperchromicity and increased reticulocyte count. She was diagnosed to have thalassemia intermedia.

Case Report: A 46 year old female having chronic anemia with fever, jaundice and tachypnoea. Past history revealed she had hypochromic microcytic anemia with thrombocytopenia, anisoposikilocytosis, target cell, tear drop cells and nucleated RBCs. She had indirect hyperbilirubinemia, elevated LDH, reticulocyte count, serum ferritin. Her indirect coombs test was positive while direct coombs test was negative. Her platelet aggregation to ADP was 49%. In her family history of thalassemia intermedia of her brother and mother, which was concealed because of insurance issues. After a point for point mutation, she was diagnosed to have thalassemia intermedia.

Conclusion: Possibility of thalassemia intermedia should be considered in every patient with hemolytic anemia since prompt diagnosis and treatment will have a better outcome.

A Rare Case of Hemolytic Anemia
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Anti-c antibodies are a rare cause of autoimmune haemolytic anemia in adults. Here we present a case of an adult female who presented with features of hemolytic anemia and Anti-c antibody was subsequently detected to be positive.

Case Report: A 56 year old female presented with complaints of breathlessness since past 3 months and fever since past 15 days. Based on history and examination, a diagnosis of anemia and Community acquired pneumonia were considered. Laboratory investigations revealed low Hemoglobin of 10.2 gm/dl, platelet count of 162x10^3 cells/mm^3 and platelet count of 2.7 lakh cells/mm3.

Peripheral smear showed microcytic hypochromic anemia with neutrophilic leucocytosis. Reticulocyte count was 4% (corrected reticulocyte count 13%). Serum iron profile done suggestive of iron deficiency anemia. Blood transfusion was planned for the patient. However patients blood could not be matched to the major ABO blood groups. ANA profile sent was negative and Direct and Indirect Coombs test was done and found to be negative. LDH was 150.

On further evaluation, patient was transfused less incompatible blood group (O negative). 2 pints of PRBCs (o negative) were transfused to the patient. Hb improved to 7 g/dl.

10 days post transfusion, patient developed fever, jaundice and hematuria. LFT showed Done indirect hyperbilirubinemia. A possibility of antibodies to non major blood antigens was thought of. Coombs test was repeated. The repeat coombs test came positive for IgG type warm antibody. Anti c antibody was found to be positive.

Patient was started on Inj Methylprednisolone. On discharge CBC – Hb:7.6, T.C:8500,Plt:284. Patient was started on tab prednisolone 20mg od. On follow up Hb:11.1, T.C:5620,Plt:269.

Discussion: The present case is being reported owing to the rarity of hemolytic anemia being caused by Anti-c antibody. It is a very rare occurrence in the Indian subcontinent.

A Case of Sickle Cell Anemia and its Varied Manifestations
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Sickle Cell Disease is the most common structural hemoglobinopathy. The Sickle cell syndromes are caused by mutation in the B-globin gene that changes the sixth amino acid from glutamic acid to valine. HbS polymerizes reversibly when exposed to low oxygen tension and results in the sickling of red blood cells. Sickle cells have a significantly lower compliance compared to normal RBCs. In deoxygenated blood, sickled cells are more rigid and therefore have a much higher viscosity. The increased sickling results in reduced deformability of the red blood cells and increased risk of thrombosis.

We present a case of middle aged male patient suffering from Homozygous SCD with all the classical manifestations of SCA.

We present the case of 42 year old male patient born of non consanguineous marriage diagnosed case of Homozygous Sickle Cell Disease. He was admitted to the OPD with complaints of weakness, loss of appetite, nausea,fatigue, breathlessness and increase in yellowish discoloration of eyes.

Previous records showed that the patient had 11 previous admissions to the OPD. Two months before he was admitted due to Acute Bone Crisis,Severe Anemia requiring Blood Transfusion and Bilateral Non Healing Ulcers on both legs.

Till April 2018 the patient had 3 admissions in DMH when he developed all manifestations of SCD disease, including anemia, Aplastic crisis, Hemolytic Anemia, Severe Anemia, Pancytopenia, Gastric Crisis, autosplenectomy, OA of left hip with degenerative changes in right hip, Pulmonary Hypertension with Dilated RA.

According to Literature, splenic sequestration has been documented in infants as young as 3-4m of age, however it has been reported in adults. The overall prevalence of organ failure amongst patients who die with sickle cell disease is approximately 10% but it occurs in 50% of those >35 years of age. For patients with SCA who live in tropical areas the prevalence of PHT increase, consistent with rising pulmonary vascular resistance. Our case has been observed in 75% of adults with SCA who live in tropical areas.

Aplastic crisis are characterized precociously by or associated with febrile illnesses and most aplastic episodes occur during childhood.

Our patient had all the clinical manifestations of SCA, which are rarely seen together in one patient.

JAK2 Negative Polycythemia Vera
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Introduction: Polycythemia Vera(PV) is a rare disorder(2.6/1000) JAK2 mutational frequencies using sensitive detection techniques on either peripheral blood or bone marrow aspirates. Here we present a case of PV. Here is a case report of JAK2V617F negative PV.

Case Report: 47 yrs male presented with headache, pain both legs and general fatigue for past 3 months. On examination, Generalized peripheral edema was marked. Chest/CS/CV examination was normal. Hb:54gm%,hematocrit 65.1%, TLC(48000), Platelet count 1.5 lac/mm3. Serum iron was 100g/m1,ALP:45 U/L. Serum V617F was negative. Chest Xray showed mild pylephlebitis. Ultrasonography abdomen showed splenomegaly.

Conclusion: The diagnosis of PV was made according to British committee for Standards in Hematology(BCSH) guideline(1)+2+/3+/2+/. He was treated with Hydroxyurea and phosphate, and his symptoms alleviated. DCO was monitored regularly.

A Study of Platelet Function in Sepsis and its Correlation with Severity of Sepsis
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Introduction and Objective: Sepsis prevals as the most disabling and therapeutically challenging in critical care settings with marked morbidity and mortality. Platelet dysfunction is one of the important poor outcome predictors. Its concentration and function abnormalities are commonly seen in sepsis, especially with severe sepsis. But the characteristics of sepsis related changes in platelet function have always been quite elusive in nature. While, thrombocytopenia is a persistent feature of severe sepsis, platelet aggregation results have always been variegating from normal, decreased to increased. Our objective thus was to evaluate the platelet number and function in sepsis and whether the changes in the platelet function were correlated with severity of sepsis.

Material and Methods: Platelet count was measured manually while platelet agonist induced platelet aggregation to ADP was measured in platelet rich samples obtained from blood of 30 patients with sepsis within 24 hours of admission. The severity of organ dysfunction was assessed with sequential organ failure score (SOFA score).

Results: In our study platelet count was decreased in 9 patients (56.67%) and platelet aggregation to ADP was decreased in 50% of patients with sepsis and it was not statistically significant with severe sepsis (p value of 0.54). While in subgroup analysis the subset with thrombocytopenia had significant negative correlation
between platelet aggregation and severity of sepsis (p value of 0.01).

Conclusion: Sepsis induced thrombocytopenia is seen in worsening sepsis. The platelet aggregation is not altered with severe sepsis. But in septic patients with thrombocytopenia platelet aggregation was decreased especially with severe sepsis.

Autoimmune Hemolytic Anemia: A Case Series at Tertiary Care Hospital
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Introduction and Objectives: To evaluate the etiology and clinical profile of autoimmune hemolytic anemia (AIHA) in a tertiary care hospital.

Material and Methods: Around 25 patients were identified and analysed based on clinical features, hemogram, liver function tests, LDH, DCT/ICT, ANA, USG abdomen. Etiological factors and clinical profile were ascertained. Study duration was 6 months.

Results: Twenty five patients (17 females and 8 males) with a median age of 37.5 years (range 16-59) were enrolled. The most common symptom was generalized weakness(60%). At presentation mean hemoglobin was 5.05 gm/dl (range 2.4-7.7), mean bilirubin was 5.7 mg/dl (range 4.9.3), mean LDH was 795U/L (range 441-1510), DCT positive(100%), ICT positive(84%). Warm AIHA (92%) was the most common type of AIHA. ANA positive in 44.4% of patients, anti-RAHA in 11.2% and the most common type than primary AIHA (39.13%). The most common etiology of secondary warm AIHA was SLE (50%) followed by malignant lymphoma(14.28%), APLA(14.28%), miscellaneous (14.28%) and HIV (7.14%). Among 25 patients, two patients were found to have cold agglutinin disease of which one patient had histiocytic sarcoma and other patient had SLLE.

Conclusion: In this study, secondary AIHA was common than primary AIHA. It highlights the importance of evaluating the etiology of AIHA and underlying secondary causes to be ruled out to label as primary AIHA.

Oncology
AYA-ALL: Real World Experience from a Tertiary Care Center in North India
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Introduction: The outcomes of Adolescent and young adult (AYA) have been studied in various hematologic-oncology subsets. Factors contributing improved outcomes by paediatric-inspired or fully paediatric protocols.

Objectives: To study the characteristics and outcomes of AYA-ALL from real world settings.

Methodology: It is a retrospective observational study wherein the data of all patients of AYA-ALL managed at a tertiary care center in North India over the last 14 years were analyzed. All case records of the AYA-ALL were perused, analyzed. All case records of the AYA-ALL were perused, analyzed.

Results: Around 25 patients were included in the study. The results were analysed using appropriate statistical tests.

Results: Majority of the patients in the present study were male with Male: Female ratio of 6.1:1. Mean age of 59.56 years. Smoking was the commonest risk factor found in 82% patients and majority of them were heavy smokers. Cough was the most common symptoms (78%) followed by dyspnoea and chest pain. Adenocarcinoma was the commonest subtypes in the male population, followed by squamous cell carcinoma (34%) and small cell carcinoma (20%).

Conclusion: There is a shifting trend in clinico-radiological suspicion of lung cancer with world wide scale. Adenocarcinoma has replaced squamous cell carcinoma as commonest subtype which is consistent with our study also.

Unusual Presentations of Lymphoma - Case Series
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Background: Patients with lymphoma usually presents with long standing fever, loss of weight and appetite generalized lymphadenopathy. Unusual presentations include ulcer over the thigh, acute urinary retention, sepsis, para neoplastic stills, paraneoplastic transverse myelitis.

Methods: Over a period of 1 year, 7 cases of lymphoma with atypical presentations were collected. 1 cases presented with ulcer over the posterior aspect of right thigh, 1 case with gradual onset of parasthesia and weakness of lower limbs, 1 case with acute urinary retention 1 case presented with paraneoplastic stills disease, 1 case presented with septicaemia, 1 case presented with cholesterol cleft disease, 1 case presented with diaphragm. unusual presentations are seen in both males and females, so sex predilection, most of the patients are more than 40 yrs of 13 of them had weight loss and decreased appetite.

Conclusion: Observation: Case 1: patient had fever, ulcer over the posterior aspect of thigh, on evaluation pt had cytopenias. biopsy taken from ulcer was suggestive of lymphomas.

Case 2: Presented with gradual onset of parasthesia and weakness of lower limbs. On evaluation patient was found to have left ureteric mass compressing the ureter, with left moderate hydronephrosis, biopsy done from mass suggestive of lymphoma.

Case 4: Presented with fever, joint pains, rash with a duration of 1 month. On evaluation pt had cytopenias. biopsy taken from joint was suggestive of lymphomas.

Case 5: Presented with fever of long duration and On evaluation pt found have septicaemia.

Case 7: Presente with long standing diarrhoea.

Conclusion: Lymphoma can present with atypical manifestations and should be considered in differential diagnosis while evaluating a patient with unusual clinical presentation not fitting into any known disease.

Study of role of HPV in Head and Neck Cancers
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Introduction and Objectives: Oropharyngeal carcinomas caused by Human Papilloma virus have raised large concern due to the striking increase in incidence over the past few years and favourable response to treatment associated with it. We, through this study, aim to characterize HPV positive Head and neck cancers and assess the treatment response in the Indian setting.

Materials and Methods: 80 newly diagnosed cases of squamous cell carcinoma head and neck region, who were immunocompetent and without any neoadjuvant chemotherapy and/or curative radiotherapy were enrolled. Cytoplasmic samples, in the form of oral brushing/biopsy were obtained and tested for HPV using HPV DNA test kits. Specimens with RLU/CO ratio ≤1.0 were considered positive. All the patients were given Neoadjuvant chemotherapy followed by chemoradiation or radiotherapy alone.

Results: In our study, HPV positive cohort consisted of 13 cases (16.25%) of total study population. Among them 9 (69.3%) were between 40 and 59 years and were all male patients. With respect to personal habits, 7 (53.8%) were smokers, 8 (61.5%) were non alcoholics and 12 (92.3%) were not oral tobacco users. Among all HPV positive patients on evaluation, 12 (92.3%) were found in stage IV A of disease and the commonly involved site was oropharynxes 8 (61.5%). On Histopathological examination, 10 (76.9%) were having grade 2 (Moderately differentiated squamous cell carcinoma). On follow up after 4 cycles of NACT, 10 (76.9%) had partial response and after CTR/RT, 10 (76.9%) and 3 (23.1%) had partial and complete response respectively. All HPV positive patients had better disease free survival.

Conclusion: HPV positivity has considerable importance among non smoking, non tobacco chewing males of middle age group, having oropharyngeal squamous cell carcinomas and loco regionally advanced stage disease. It also has better response to treatment and eventually, better survival.

Novel Salivary protein biomarkers for screening of Oral Neoplasia
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Oral cancer is regarded as the fifth most common cancer type of worldwide. More than 90% of oral cancers are squamous cell carcinomas. The Indian subcontinent accounts for one-third of the world burden of this malignancy.

Aims: To study the usefulness of salivary abnormal expression of Cyclin D1 and Ki-67 proteins for early detection of premalignant conditions.

Settings and Design: was a Prospective observational study carried out at KIMS, Hubli

Methods and Material: Subjects were divided into Normals, with premalignant conditions and with Oral Neoplasia. Estimation of Cyclin D1 and Ki 67 levels in saliva done using ELISA method.

Statistical analysis used: ANOVA or Kruskal Wallis test to test of significance and mean difference between more than two groups for quantitative and qualitative data respectively.

Results: In the study there was no significant difference in mean K67 levels between three groups. In the study there was significant difference in mean CyD1 between three groups. CyD1 was high in premalignant lesions and low in malignant lesions.

Conclusions: Cyclin D1 levels in saliva as a screening strategy for oral malignant and premalignant lesions appears to be a very promising prospect in a quest to develop simple, reliable noninvasive tool.

A Study of EBV in Hodgkin Lymphoma
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Objectives: This study aim at observing prevalence of EBV in Hodgkin’s lymphoma and to assess and compare treatment response in EBV positive v/s EBV negative Hodgkin’s lymphoma after chemotherapy (Adriamycin,blomycinombustine/bleomycinodacarbazine).

Materials: Recruited 40 cases of newly diagnosed Hodgkin Lymphoma. All received six cycles of ABVD Regimen. Evaluation done by standard method and EBV viral load before chemotherapy, after three and six cycle of ABVD.

Results: Among 40 subjects, 45% were of Mixed Cellular and 45% of Nodular Scherosis. 17 patients were EBV+ve and 23 patients were EBV negative. 13 patients
of MCHL were EBV positive out of 18. Prevalence of EBV in malignant pleural effusion was 70.6% in EBV positive patients, 47.1% in EBV negative patients. Total 147 consecutive patients were included in the study. Out of which 13 (100%) cases were malignant pleural effusion. In patients with malignant pleural effusion, the pleural YKL-40 was positive in 13/13 (100%) cases. The median pleural fluid YKL-40 level was significantly higher in malignant pleural effusion (114.80 ng/mL) compared to tuberculosis (93.17 ng/mL) and parapneumonic pleural effusion (1.11 ng/mL). A diagnostic cut-off for pleural fluid YKL-40 of 99.76 ng/mL detected malignant pleural effusion with 85% sensitivity, 87% specificity, 89% PPV and 83% NPV and diagnostic accuracy of 85.71%. In patients with malignant pleural effusion, the pleural YKL-40 was positive in 13/13 (100%) patients of metastatic adenocarcinoma with unknown primary, 9/9 (100%) patients of breast cancer and 13/13 (100%) patients of adenocarcinoma lung. But this finding was not significant due to the small sample size in the subgroups.

Conclusions: This study showed that pleural fluid YKL-40 is a reliable diagnostic marker for detecting malignant pleural effusion. However further studies with a larger sample size are required to establish the relationship between pleural fluid YKL-40 and histological subtypes of malignancy.

A Case of Generalised Lymphadenopathy
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Introduction & Objectives: To ascertain the cause of painless generalized lymphadenopathy in an elderly patient.

Materials & Methods: 60 year old Diabetic/ Hypertensive agricultural worker male who noticed multiple painless swellings in various parts of body with recent history of dry cough, night sweats & loss of weight. History & appetite loss was evaluated for the case through investigations - Complete Hemogram, Renal/Liver function tests, chest x-ray, Urine microscopy, Serology for HIV/Hepatitis A & C, Peripheral smear, FNAC, Lymph node biopsy, Bone marrow studies, Chest X Ray, Echocardiogram, Ultrasound, Contrast CT, Videoaryngoscopy, OGD/Scope.

Results: Routine blood investigations were within normal limits with the exception of high LDH. Serology for HIV/Hepatitis A & C was negative. Peripheral smear showed reactive lymphocytosis, FNAC from axillary cervical lymph nodes showed high cellularity with predominant small lymphoid cells admixed with few large lymphoid cells. Histopathological examination of Non-Hodgkin’s lymphoma (NHL) was suspected. Further confirmation with biopsy and Bone marrow studies. Chest X-ray – Normal. Echocardiogram- minimal Pericardial Effusion. Ultrasonogram – Hepatosplenomegaly with Mesenteric lymphadenopathy. OGD/Scope - Ulocroproliferative growth at D1/D2 junction-biopsy taken. Whole body Contrast CT imaging from retropharyngeal node to Mid-inguinal region – Mediastinal, Retroperitoneal, Mesenteric and retrocrural lymphadenopathy. Right inguinal lymph node biopsy – Loss of architecture, Small cells with irregular angulated nuclei interspersed with scattered Reed-Sternberg cells along with trabeculated, medullary sized atypical cells showing increased mitosis. Immunohistochemistry - negative for CD20, CD79A, CD30, LMP, Pos for CD3, CD117, CD20, CD5, – 50% positive, Ki67 – 15 to 20% confirming Mantle cell lymphoma with Blastoid transformation. Bone marrow and duodenal biopsy showed infiltration with lymphoma cells.

Conclusions: 68 year old gentleman with LDH Ann arbor stage 4, more than 1 extra nodal site involvement and an ECOG performance status of Zero fell under High grade NHL with poor prognosis.

Clinical Utility of Pleural Fluid YKL-40 as a marker of Malignant Pleural effusion
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Background: Pleural effusion is a common presenting feature of malignancy. Malignant pleural effusion is defined as pleural fluid cytology, pleural biopsy and tumour markers. The glycoprotein YKL-40 is a new tumour marker which has shown to have a good diagnostic accuracy in a wide variety of solid cancers and mesothelioma. However there are only a few studies which have evaluated pleural fluid YKL-40 for detecting malignant pleural effusion. Therefore this study evaluated the clinical utility of pleural fluid YKL-40 to detect malignant pleural effusion.

Settings and Design: This is a cross sectional study conducted between February 2016 and December 2017 there was a tertiary care referral hospital.

Methods and Material: 147 consecutive patients with pleural effusion were included in the study. These patients were divided into three groups viz malignant effusion and non-malignant effusion and parapneumonic pleural effusion, based on clinical features, radiological examination and pleural fluid analysis. Pleural fluid YKL-40 level was measured using enzyme linked immunosorbent assay (ELISA).

Results: Out of the 147 consecutive patients included in the study, 13 (100%) cases had malignant pleural effusion. 54(36.9%) patients had tuberculous pleural effusion and 49 (33.3%) patients had parapneumonic pleural effusion. The median pleural fluid YKL-40 level was higher in malignant pleural effusion (99.76 ng/mL) compared to tuberculosis (93.17 ng/mL) and parapneumonic pleural effusion (1.11 ng/mL). A diagnostic cut-off for pleural fluid YKL-40 of 99.76 ng/mL detected malignant pleural effusion with 85% sensitivity, 87% specificity, 89% PPV and 83% NPV and diagnostic accuracy of 85.71%. In patients with malignant pleural effusion, the pleural YKL-40 was positive in 13/13 (100%) patients of metastatic adenocarcinoma with unknown primary, 9/9 (100%) patients of breast cancer and 13/13 (100%) patients of adenocarcinoma lung. But this finding was not significant due to the small sample size in the subgroups.

Conclusions: This study showed that pleural fluid YKL-40 is a reliable diagnostic marker for detecting malignant pleural effusion. However further studies with a larger sample size are required to establish the relationship between pleural fluid YKL-40 and histological subtypes of malignancy.
INTRODUCTION: India being a country with more population living in villages, depends on farming, they will have easy access to poisons which are kept in their household. Also now a lot of local chemicals are available in the market, which are made by mixing different chemicals, whose composition is not mentioned on the labels. Here we are presenting three of such cases admitted within 8 hours of compound poisoning.

Methods: Observational study

Results: 2 out of 3 patients presented in a state of respiratory distress, cyanosed and as their blood samples were not maintained sustaining a diagnosis of mixed compound poisoning with methemoglobinemia was made. Both of them were given I.V methylene blue (2 doses), ventilator support continued, given support nutritional care. After 3 days of their admission they developed haemolytic anaemia, degeneration of red cells, with a deranged acidosis, multi organ failure, we couldn’t save them. 3rd case was also given inj. Methylene blue (2 doses) administered diagnosing mixed compound poisoning with methemoglobinemia. As patient didn’t recover exchange transfusion was done 2nd day of his admission. With this patient condition improved, weaned and extubated, he was discharged after 15 days of hospital stay.

Conclusion: In a case of suspected methemoglobinemia, if the patient does not improve with methylene blue, differential like sulfohemoglobinemia should be kept in mind, as both have same features. Also with limited resources like unavailability of co-oximetry differentiating them will not be possible, in them exchange transfusion will be of help. There are conditions like methemoglobinemia which are resistant to treatment with methylene blue due to enzyme defects, or chlorates, in these conditions also exchange transfusion is beneficial.

A Study on Factors Affecting the Severity of Acute Kidney Injury (AKI) in Russell's Viper Bite

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Introduction and objectives: Russell’s viper bite is the most common snake bite causing AKI in Kerala. Factors affecting this need to be analyzed.

Materials and Methods: This retrospective observational study was done on 148 patients with Russell’s viper bite. Their manifestations and laboratory investigations were analyzed to find factors affecting AKI.

Results: In this study 66.9% patients were male and 33.1% were females. Maximum cases were seen in month of June -September. Most of the cases fell in lower limb (58.8%). Out of 148 patients, 84(57.03%) were Neurotic, 74(49.3%) were Hemotoxic, 46(18.2%) were dry bites. out of total patients 36% were in rural AKI. Mean ASV given in Neurotic bites is 11.5, Hemotoxic(9.3), Neurotoxic and Hemotoxic (10.8), out of Neurotic bites 32 patients developed AKI. Mortality in AKI was 9.7% (22 cases).

Majority of deaths are due to Neurotic bites.

Conclusion: Snake bite is an important occupational and rural hazard. It is a fact that in spite of heavy mortality, very little research has been done by clinician to this occupational hazard. As per my study it revealed that there was overutilization and under utilization of ASV. Therefore, there is an urgent need to make sure that guidelines are followed at each level of health care.

Results:

1. Significant association was observed between age (p<0.01), diabetes mellitus (p<0.02), bete site pain(p<0.04), urine haemoglobin (p<0.0001), urine RBC (p<0.04), proteinuria(p<0.001) and all cases were of suicidal intent.

2. Patients with snake bite were divided in two groups, first with deranged 20 min WBCT and second with normal WBCT. Serum cholesterol was measured at baseline in both the groups at the time of serum collection. In patients with normal WBCT, serum cholesterol levels were further repeated.

Results: Among 100 patients studied, the mean serum total cholesterol levels in serum of hemotoxic snake can predict the severity of envenomation. In our study, we found that a negative correlation exists between serum cholesterol levels and the severity of envenomation. Cholesterol levels significantly decreased with complications and increased as patients recovered from envenomation. Hence serum cholesterol levels in patients can be determined using snake bite envenomation and, predicting the complications and recovery.

Organophosphate Induced Delayed Neuropathy: A Rare Presentation of a Common Poison

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Introduction: In India, Organophosphorus (OP) compounds account for half hospital admissions due to poisoning. Pathophysiology of OP poisoning is inactivation of acetylcholinesterase and neuropathy target esterase. In this case report, patient presented with cholinergic crisis after exposure to Chlorpyrifos and developed delayed neuropathy.

Case Report: 25yr old male after Chlorpyrifos ingestion, presented with cholinergic crisis and altered sensorium. On examination pupils were miosis and severe ptosis of both the eyelids. He was managed with gastric lavage, intravenous atropine and pralidoxime. Patient got symptomatic relief. On day 2, patient developed respiratory distress with piosis and weakness of neck flexors needing ventilator support but recovered and discharged later.

After 20 days, he had cramping calf pain and numbness in lower limbs. On electrodiagnostics there was marked reduced amplitude of compound muscle action potential and reduced conduction velocity in peroneal and tibial nerves of both lower limbs. CMAP and conduction velocity was slightly reduced in both ulnar and median nerve. Sensory nerve action potential was normal in bilateral upper limb and reduced in bilateral lower limbs. These findings suggest predominant motor axonal neuropathy of lower limbs. Keeping in mind the history of organophosphate consumption and late onset of neuropathy, along with electrophysiological suggestive of axonal motor neuropathy, diagnosis of organophosphates induced delayed motor neuropathy was made.

Conclusion : Organophosphate induced delayed neuropathy is itself rare entity and pyramidal tract involvement is further uncommon. Our patient presented with three syndromes of OP poisoning. In addition to the classical presentation, our patient also developed pyramidal tract involvement which is quite rare. Hence regular follow up of patients of organophosphorus poisoning is important for detection of organophosphates induced delayed polyneuropathy.

Paraquat- a Lethal Herbicide: A Case Series

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Introduction and objectives: Paraquat is a contact herbicide widely available in India. It is a tissue poison with Organophosphorus poisoning being seen predominantly as multi-organ failure. It is confused with caustic agent as it produces excoriation at local site. Despite its widespread use, there is very less awareness about paraquat poisoning.

We are reporting five cases of paraquat poisoning presenting to our hospital in the last one year.

Materials and Methods: All cases with suspected history of intake of paraquat or subsequent evidence from content were included.

Results: The patients were aged between 17 to 50 years and all cases were of suicidal intent.

All cases presented between few hours to 5 days of intake after receiving primary treatment elsewhere.

The cases presented with oral ulcer, metabolic acidosis requiring ventilator support, coma, myoglobinuria and renal failure. The mean increase in serum cholesterol levels in patients with snake bite was 110 mg/dl (p < 0.001).
acidity and multi-organ dysfunction and were managed in intensive care unit.

All required mechanical ventilation and had acute kidney injury of which three underwent hemodialysis. AKI resolved in one case without hemodialysis.

Hepatopothy resolved in 3-4 days in cases who survived.

Two cases presented with shock. None had any underlying comorbidities.

The period of hospitalization ranged from 19 hours to 20 days.

All cases were treated with decontamination by activated charcoal, catharsis, and symptomatic therapy in ICU with N-acetyl cysteine, methylprednisolone, vitamin C, amotropes, low flow oxygen to maintain SPO2 between 68-86.

Cyclophosphamide was given to one case who had pulmonary fibrosis, having survived for 20 days.

Ultimately death ensued in all cases.

Conclusion: Paraxa poisoning has high mortality due to multi-organ involvement. Diagnosis is difficult because of non-specific clinical features in absence of proper history.

The universal fatality in these five cases could be due to delayed hospitalization and initiation of specific treatment.

Focusing on prevention by regulating availability of chemicals, a high degree of clinician suspicion with aggressive management may prevent fatalities.

Kounis Syndrome Secondary to Bee Sting – A Rare Entity
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Introduction: Allergic reactions to chemicals, food products to flower and bee envenomations are encountered all over the world. Symptoms range from the development of a minor rash to life threatening anaphylactic reactions. Rarely such allergies reactions can precipitate acute organ involvement which in our case was acute coronary syndrome. Acute coronary syndrome resulting from an allergic reaction is referred to as Kounis syndrome. We present a case of Kounis syndrome secondary to bee sting in a patient with no previous history of coronary disease.

Case Summary: A 59 year old male presented with dyspnea followed by bilateral hoarseness of voice with pain in the left arm secondary to bee sting. On examination the patient was having dyspnea, tachycardia, raised JVP & bilateral crepitations. Allergic investigations revealed a significant rise in bilateral crepitations with normal first and second heart sounds & S3 gallop. Other systemic examinations were normal. The patient was put on ventilator. The investigations showed an increase in cardiac biomarkers. ECG demonstrated ST elevation from VI-V5 suggestive of anterior infarct & chest X-ray showed pulmonary oedema. Echo showed hypokinesia in mid anterior septum, distal IVS, apex and distal anterior wall. Myocardial perfusion scan revealed a reversible anterior and apical wall perfusion defect involving 23% of total myocardium with resting LV ejection fraction within normal limits. Coronary angiography revealed a triple vessel disease with 90% lesion in LAD, 80-85% lesion in OM1, 90% in OM2 and 40% in RCA.

Conclusion: Myocardial Infarction is a rare complication of anaphylactic reactions due to bee sting. ECG & ECHO are recommended in all patients developing hypersensitivity reactions for prompt diagnosis and treatment.

Cerebellar Ataxia : A Rare Side Effect of Phenytoin
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Cerebellar ataxia can cause cerebellar damage due to its narrow therapeutic window. But it can cause ataxia in certain susceptible people even in therapeutic window as it is a cheap, easily available and once daily anticonvulsant, so its adverse effects should be carefully evaluated.

Case: A 52 yrs old diabetic and hypertensive lady on regular medicines, developed altered sensorium and low grade fever. She was found in a private hospital where she was investigated and managed. In her routine profile, serum sodium was low(114 meq/L), TLC : 13,000/cmm, CSF analysis and MRI Brain was normal. She was given broad spectrum antibiotics, antiviral, 3% NS, antiplatelets (phenytoin and levetiracetam). She responded well. But in few days her nasal speech and movements of hands. She had normal higher mental functions, able to eat and swallow, no sensory or motor deficit, no diminution of vision, and intact bowel and bladder.

She was shifted to our hospital for this. On detailed examination she had all cerebellar signs like scanning speech, finger nose test, dysdiadochokinesia, heel shin test and nystagmus with oscillopsia. Repeat MRI scan done and found to be normal. As phenytoin is supposed to cause cerebellar hypoplasia, we withheld it and continued levetiracetam. Serum phenytoin level came out to be normal. After normalization of phenytoin she responded markedly and able to do her daily activity with minimal support in 2 weeks.

Discussion: After an episode of febrile illness with altered sensorium and seizure, abnormal body movements can be due to neurological deficit. It needs a high degree of suspicion to label a recently started anti epileptic to blame and discontinue it. But after proper evaluation we succeeded to pin point the cause and treated it.

Conclusion: Although rare but phenytoin in therapeutic range can cause cerebellar ataxia in susceptible patient.

Vitamin D: Predictor of Morbidity in Elderly
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Introduction & Objective: Association of vitamin D levels and presence, number of morbidities in elderly. Discriminant analysis using vitamin D for predicting morbidities in elderly.

Methods: 250 elderly aged 260 years were enrolled from Department of Medicine at KGMU, Lucknow and screened for vitamin D levels. They were investigated for presence of 1 of the following non communicable disease: Hypertension, Type 2 diabetes mellitus, Coronary artery disease (CAD), Chronic Obstructive Pulmonary Disease (COPD) and Metabolic syndrome (defined as per the IDI criteria). Statistical analysis was used to find an association between vitamin D level and presence and number of morbidities.

Results: The majority (62%) had 25(OH)D levels <20 ng/ml indicating vitamin D deficiency. Mean vitamin D levels in cases with no morbidity was 29.35±10.12 ng/ml and was significantly higher compared to cases having any morbidity 14.80±10.12 ng/ml. Lower levels of vitamin D were associated with increasing number of morbidities. With 1 morbidity mean vitamin D level was 17.49±12.00 ng/ml. With 2 morbidities mean vitamin D was 13.83±12.43 ng/ml. In those with 4 or more morbidities mean level was 5.20±14.27 ng/ml. 25(OH)D levels can also be sequentially assessed to determine the optimum values of parasympathetic and sympathetic activity as compared to younger controls, which is statistically significant. The elderly controls were compared to patients with asymptomatic and symptomatic postural hypotension which shows significant changes in Tilt Table Test in the latter group. No statistically significant difference was observed among the elderly patients with asymptomatic and symptomatic postural hypotension.

Conclusion: In treating or better still preventing vitamin D deficiency, we might be able to prevent a number of non-communicable diseases that simultaneously afflict the elderly. The pleiotropic effects of vitamin D on the human health make routine supplementation a cost effective health initiative. No conflict of interests are declared by the authors.

A Case of Pre-existing Cardiac Condition complicating LeV’s Disease
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Introduction: LeV’s syndrome is a progressive, fibrotic, scleroderagenative disease of the conduction system. It occurs in isolation or as a part of the ageing process.

It usually presents in a trivially intact heart unlike this case.

Materials and methods: A 76 year old female patient; known case of COPD, diabetes and hypertension on regular medications of smoking all the time. A complaint of breathlessness since 1 day sudden in onset, continuous, with no aggravating relieving factors.

Breathlessness was present at rest (grade 4 NYHA).

Geriatrics

Cardiovascular Autonomic Index - A marker of morbidity in elderly
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Introduction: Cardiovascular autonomic functions are important determinants of morbidity and mortality. The risks of sudden cardiac deaths, arrhythmias increase with age. The vulnerability of subclinical sympathetic hypoinhibition is being widely used to determine the optimum values of parasympathetic and sympathetic activity in elderly and to establish the vulnerable group.

Methods: The patients were divided into five groups: 1. Elderly Controls 2. Diabetic Elderly Patients 3. Asymptomatic Postural Hypotensive patients 4: Symptomatic Postural Hypotensive patients 5: Healthy young controls.

The following parameters were recorded: Autonomic Reactivity Tests: i) Deep Breathing Test; ii) Valsalva Maneuver; iii) Isometric Handgrip Test, iv) Tilt Table Test.

Results: The elderly controls have lower parasympathetic and sympathetic activity as compared to younger controls, which is statistically significant. The elderly controls were compared to patients with asymptomatic and symptomatic postural hypotension which shows significant changes in Tilt Table Test in the latter group. No statistically significant difference was observed among the elderly patients with asymptomatic and symptomatic postural hypotension.

The outcome of the sympathetic function test is further analysed with respect to time, which shows maximum rise at the initial 1 min and maintenance with minimal rise along the rest of 4 mins. This dynamic change over time is compared along the groups.

Conclusion: We can conclude that, the patients had lower sympathetic activity. It may be due to postganglionic sympathetic nerve degeneration or due to decreased sensitivity of a/f activity. The elderly patients had similar degenerations like that of diabetic patients with similar cardiovascular autonomic derangement. In our study, activation of the sympathetic nervous system in stressful situations is also incompletely. The symptoms depend mainly on cerebral perfusion, which is again mainly influenced primarily by the sympathetic system. So a systolic drop of even 10 mm Hg in presence of symptoms may be significant.
Clinical Profile of Elderly Patients Presenting with Persistent Dizziness

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Introduction: Dizziness is common in elderly people; 30% of people older than 65 years experience dizziness in some form, increasing to 50% in the very old (older than 85 years). In 20% to 40% of dizzy patients in primary care, the underlying cause of dizziness remains unknown.

Need for Study: Several studies have been done on cause of persistent dizziness in elderly and they have yielded inconsistent results. The need for this study is to relook into etiology of dizziness in elderly.

Aims and Objectives of the Study: Aim of our study is to determine causes of persistent dizziness in elderly and to assess contributory causes of dizziness.

Materials and Methods: In our study, a total of 130 individuals aged above 60 years were included. It was observational cross sectional study carried out from October 2017 to September 2018. All patients underwent a comprehensive evaluation according to a set of diagnostic tests that were developed during an VIII international Delphi procedure.

Results: From October 2017 to September 2018 we included 130 patients aged 60 to 100 years. Pre syncope was the most common dizziness subtype (71.5%). Forty five percent of the patients were assigned more than 1 dizziness subtype. Cardiovascular disease was considered to be the most common underlying cause of dizziness (40%), followed by peripheral vestibular disease (22.3%), and neurologic disease where adverse drug effect was considered to be the most common contributory cause of dizziness (20%). Sixty four percent of the patients were assigned more than one contributory cause of dizziness.

Conclusion: It is imperative from the observations that a comprehensive examination and laboratory evaluation in elderly presenting with dizziness is essential including cardiovascular evaluation and brain imaging. Such an approach that considers and evaluates multiple causes of dizziness in the elderly helps the clinician to plan effective treatment.

Conflict of Interest: Giddiness in the elderly may be due to multiple reasons and cannot attribute it to one illness.

Determinants of Outcome in Elderly Patients Admitted to Medical ICU

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Introduction: This study is a small and sincere effort to identify the clinical characteristics that influence the outcome in critically ill elderly patients admitted to the medical ICU.

Aims and objectives: To determine the clinical characteristics (severity of illness scoring index, mechanical ventilation, inotropes, premorbid conditions, length of ICU stay) associated with mortality in patients older than 60 years admitted to medical ICU.

Material and Methods: Study setting: Alluri sitaramaraju institute of medical sciences is a 1100 bedded multispecialty hospital which has a 100 bedded ICU facility which caters to both surgical and medical specialities. Most of the admissions to the ICU are medical emergencies like sepsis, copd exacerbations, ARDS, pulmonary embolism, cerebrovascular accidents and myocardial infarctions. The patients come from a diverse background and their ages range from 15 years to 100 years.

This study is an observational study and was conducted in the asram hospital medical ICU between June 2017-July 2018.

Study population: All elderly people (age > 60) who were admitted to the medical icu fulfilling the inclusion criteria and consenting for the study were enrolled into the study.

Inclusion criteria: All adults >60 years who are admitted to medical ICU from emergency and wards.

Exclusion criteria: Patients who were admitted with surgical issues.

Patients who have been referred or transferred after initiation of treatment at another ICU facility.

Study design
Observational study
Sample size: At 80% power and 95% confidence interval, the sample size is calculated as follows.

Mortality in Medical ICU Elderly Patients

Sample size 246

Observation and Results will be discussed.

No statistically significant association found with sex and increase in mortality in elderly above 60 years admitted to medical ICU.

No statistically significant association found with diabetes mellitus-II and increase in mortality in elderly above 60 years admitted to medical ICU.

No statistically significant association found with hypertension and increase in mortality in elderly above 60 years admitted to medical ICU.

No statistically significant association found with heart diseases and increase in mortality in elderly above 60 years admitted to medical ICU.

Use of ventilator is associated with increase in mortality (P-value: 0.000) in elderly patients above 60 years of age to medical ICU.

Mean SOFA scores at the time of admission among expired and survived patients are 5.52 and 5.43 which are statistically significant with (P-value:0.000) in above 60 years of age admitted to medical ICU.

Mean SAPS-II scores among expired and survived patients are 64.51 and 51.65 in expired patients and 4.84 in alive patients of above 60 years of age admitted to medical ICU.

No statistically significant association found with increase in mortality in patients above the age of 75 years (P-value:0.000).

Conclusion: In our study conducted on the elderly critically ill medical patients, we found that age greater than 75 was associated with increased mortality. Use of inotropic support, and mechanical ventilatory support was associated with increased mortality in them. Illness scoring systems like SOFA-I, SOFA-II and SAPS score were accurate in predicting outcome in these patients.

Exclusion criteria: Patients who were admitted with surgical issues.

To identify the risk factors in patients with TB-Diabetes co-morbidity for early recognition of cognitive impairment

Methods: A cross-sectional study was carried out from June 2018 to October 2018 in Dr. B. R. Ambedkar Medical College and Hospital, Bangalore. A total of 100 patients with sputum smear positive pulmonary tuberculosis were enrolled, out of which 50 patients with Type 2 Diabetes Mellitus were taken as CASES and the rest without any co-morbidities as CONTROL. A face-to-face interview was conducted using a reliable, validated proforma carried out. Mini Mental State Examination (Hindi version) and Montreal Cognitive Assessment tool (MoCA) was used for cognitive assessment.
Clinical Characteristics and Hospital Outcome of In-Hospital Cardiac Arrest Patients in Emergency Medical Services: A Descriptive Study

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Introduction: There are few studies from Indian subcontinent on clinical characteristics of cardiac arrest in emergency departments. We tried to evaluate the definitive cause of cardiac arrest and hospital outcome in patients with in-hospital cardiac arrest in emergency medical services of a large tertiary care centre.

Material and Methods: This study was conducted in emergency medical services attached to department of internal medicine in Postgraduate Institute of Medical Education and Research, Chandigarh. Data of 200 patients who had in-hospital cardiac arrest was analyzed.

Results: Mean age of study cohort was 50.56 ±16.99 years. There were 134 (67%) male patients. Among the acute precipitating events; coronary artery disease with heart failure was the most common. Preceding cardiac rhythm was found in 90% of patients and most of patients had cardiac arrest in morning and night hours. Overall return of spontaneous circulation rate was 12.5% at 20 minutes which further decreased to 6% at 24 hrs. Only three patients were discharged in neurologically intact state with cerebral performance category score of one. Out of these three patients, two patients had chronic kidney disease and one had acute coronary syndrome. Cardiac arrest rhythm in these three patients was ventricular tachycardia/ fibrillation in two and asystole in one.

Conclusion: In-hospital cardiac arrest in emergency area carries dismal prognosis. Practising a protocolized programme is one of the important steps to prevent cardiac arrest and improve outcome in emergency.

A Rare Association of Dyke-Davidoff-Masson Syndrome with Diabetes Mellitus and Hypopituitarism: A Case Series and a Systematic Review

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Dyke-Davidoff-Masson syndrome (DDMS) is a rare syndrome characterized by seizures, hemiparesis, facial asymmetry, mental disability and radiologically by cerebrovascular and cerebellar osseous compensatory hyper trophy. There are few case reports of DDMS associated with comorbidities like Diabetes mellitus, hypopituitarism, epidermoid cysts, arachnoid cysts, parotitis. But the cause of association remains underdocumented and requires a comprehensive study.

Objectives: Our purpose of the study is to make a systematic medical review of the case reports of such disorder about which a few questions were left unresolved.

Case Series:

Case-1: A 17 year old female, known epileptic and diabetic [DM-I] presented to ER in diabetic ketoacidosis. After an episode of tonic-clonic seizure with prolonged postictal sleep, she developed right sided weakness and dysphagia. She was diagnosed with DDMS associated with DM-I and hypopituitarism. Her visual acuity was 6/9 on right and 6/6 on left. She had central hypothyroidism and hypogonadism with normal ACH levels. Inspite of aggressive care, we lost the patient due to multiple comorbidities.

Case-2: A 20 year old female, known epileptic presented to ER in status epilepticus with hyperglycaemia/ denovo detected. After evaluation, she was diagnosed with DDMS with DM-I with multiple comorbidities. She was referred to ER in status epilepticus with hyperglycaemia and DM-I. She had central hypothyroidism. She was diagnosed with DDMS with multiple comorbidities.

Case-3: A 15 year old male who is mentally disabled presented with typical features of seizures, hemiatrophy. He was diagnosed with DDMS with no comorbidities.

Results: In males previously, we found females presenting with DDMS with comorbidities. DM-I is the most common association detected DDMS in males. In our study case-1 didn’t lead to normal/low sugars which is due to her normal ACH levels which might be due to transcription factor defect.

Conclusion: Not all DDMS cases are associated with such comorbidities, but only few patients might be highly prone to DDMS due to some genetic involvement which directly impacts the risk factors for autoimmune hypopituitarism pathology leading to DM-I and hypopituitarism. More than a single comorbidity with DDMS led to a worse outcome. So clinicians must consider the possibility of coexisting conditions with DDMS and their etiological & clinical research is obviously very important for the better outcome.

Study of Serum Homocysteine level in acute myocardial infarction and acute ischemic stroke and its correlation with HMMSE, <23 in MoCA.

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Introduction and Objectives: Abnormal serum Homocysteine levels contribute to atherosclerosis by direct toxic effect, which damages the arterial linings, interfere with clotting factors and oxidation of LDL. Elevated levels are increasingly associated with coronary artery disease and Ischemic stroke. This study was designed to study the levels of Homocysteine levels in acute myocardial infarction and acute ischemic stroke and correlate with serum lipid profile of those patients.

Materials and Methods: The mean serum Homocysteine in patients of MI, Ischemic stroke and controls was calculated and its association with LDL cholesterol, HDL cholesterol, HOMA, total cholesterol and Triglycerides

Results: The mean study age of the study participants was 50.39±12.5 years among whom 87(38%) were males and 63(42%) were females. There was a significant difference of all lipid profile parameters except VLDL between the control, MI and Stroke groups. The mean homocysteine level was 24.04±21.6 and there was a highly significant difference in homocysteine levels between the three groups of study participants (p<0.001). Among the lipid parameters only HDL showed significant positive correlation with homocysteine levels among the three groups (p<0.005)

Conclusion: From this study higher levels of serum homocysteine triggered the coronary disease and acute ischemic stroke progression.

A Rare Case Report of Kikuchi-Fujimoto Disease with Myasthenia Gravis

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Introduction: Kikuchi-Fujimoto disease (KFD) is a self-limited benign condition of unknown etiology characterized by cervical lymphadenopathy, fever, and leukopenia. An autoimmune hypothesis has been suggested due to its association with SLE, Sjogren’s disease. Our case expands the list of cases of KFD and MG and expands the growing list of autoimmune disorders.

Case-1: A 26 year old female presented with lumps in the neck since 15 days, drooping of right eyelid since 4 days, and ptosis improved with self resolution of ptosis. Investigations revealed leucopenia, raised CRP, negative ANA. CT thorax and MRI Brain were normal. Anti ACh receptor Antibody were elevated. SFEMG showed evidence of peripheral nerve conduction delay and reduced amplitudes.

Discussion: KFD is an benign, self-limited disease of unknown etiology characterized by cervical lymphadenopathy, fever, and leukopenia. An autoimmune hypothesis has been suggested due to its association with SLE, Sjogren’s disease. Our case expands the list of cases of KFD and MG and expands the growing list of autoimmune disorders.
Introduction and Objectives: Kikuchi-Fujimoto disease (KFD), also known as Necrotising histiocytic lymphadenitis, is a rare self-limiting disease of unknown etiology. Kikuchi first described the disease in 1972 in Japan. Fujimoto and colleagues independently described KFD in the same year. It is most commonly seen in young females <30 years with pyrexia of long duration and subacute regional lymphadenopathy (mostly cervical). To review clinical, laboratory along with histopathological and immunohistochemistry data of the cases of KFD diagnosed in our institute and correlate with clinical outcome.

Materials and Methodology: It is a retrospective review of 20 cases of KFD over a period of 20 months. Clinical data including age, gender, clinical symptoms, lymphadenopathy and other associated symptoms were recorded. The investigation protocol for pyrexia of unknown origin was followed as laboratory investigations (hematology, infectious disease and autoimmune work-up) and radiograms. Also histopathological data and immunohistochemistry profile were analysed. Treatment and follow up with outcome was reviewed.

Results: 7 cases with generalised and 8 cases with localised lymphadenopathy diagnosed as KFD were treated with supportive treatment, hydroxychloroquine or steroids and responded well.

Conclusions: It is uncommon and self-limited disease and extensive work up for infective and autoimmune diseases is essential. Excision biopsy of lymph node is the gold standard for diagnosis with characteristic histological features of foci of necrosis with histiocytic infiltrates. Use of proper immunohistochemistry panel rules out lymphoma and supports the diagnosis of KFD, is crucial as significant clinical and pathological overlap with lymphoma thus posing a diagnostic challenge. KFD has excellent prognosis in spite of worrisome features and diagnostic challenges.

A Rare Case Report of Complete Pachyderma Periostitis with Myelofibrosis

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Introduction: Pachyderma periostitis is a rare hereditary disorder characterized by digital clubbing, typical bony and skin changes. About 50 cases have been published since 1990. There are 3 forms of the disease reported, they being complete, incomplete and frustate form.

Report of Case: A 22 yr old male presented with complaints of painful symmetrical swelling of small and medium joints with coarsening and thickening of facial skin. Hyperhidrosis. History revealed a second degree consanguinity with similar complaints in grandfather(also a history of paraplegia and surgery to the spine) and paternal uncle. Clinical examination revealed coarseened facial features with pachyderma of grade 2, hyperhidrosis, grade 4 clubbing, enlargement of hands and feet.

Discussion: Differentials considered were Acromegaly, syphilis, paraneoplastic syndrome, Connective tissue disorders (CTD), Camurati Engelman disease, Pachyderma periostitis. Apart from routine investigations which were unremarkable apart from pancytopenia, the special ones performed were VDRL, radiographs of the chest, Skull, hands, feet, forearm, leg; ultrasonography of the abdomen; Doppler study for vascularity around the bones, a bone marrow examination, MRI Brain with pituitary cuts, bone scan, hormonal,ctd,genetic profile. The radiograms showed periostitis (irregular) with irregular ossifications. Bone scan was suggestive of pachyderma periostitis; bone marrow suggesting myelofibrosis. Patient fulfilled the Borowitcsh criteria for complete pachyderma periostitis. He was started on etoricoxib, bisphosphonates and retinoids. On followup; an improvement of the pachyderma, reduction of joint pains was observed. Surgical reduction and botulinum injections were considered if necessary at a later stage.

Conclusion: A diagnosis of Complete Pachyderma Periostitis with Myelofibrosis was based on the clinical and laboratory findings. This condition should be identified by primary general practitioners after ruling out other etiologies. More comprehensive research on the disease and its treatment options is required in order to halt its progression.

An Interesting Case of Fever with Rash
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The drug reaction with eosinophilia and systemic symptoms (DRESS) syndrome is an adverse drug-induced reaction that occurs most commonly after exposure to drugs, most frequently anticonvulsants, sulpha derivatives, antidepressants, nonsteroidal anti-inflammatory drugs, and antimicrobials. We present a 50-year-old male, with fever with macular rash over the body for 15 days, swelling of feet and facial puffiness and jaundice since 10 days. His medical history was notable for generalized epilepsy, on treatment with phenytoin for 1 month. The diagnosis of DRESS syndrome was confirmed by skin biopsy and specific RegiSCAR (Registry of Severe Cutaneous Adverse Reactions) criteria. In our case, skin eruptions were successfully treated with systemic steroids.

In conclusion, although the mechanisms of this syndrome are not completely understood, numerous cases were reported in children and adults. This syndrome should be considered in every patient with skin eruption, fever, eosinophilia, liver and hematological abnormalities. Prompt recognition, supportive therapy and initiation of corticosteroids may prevent systemic manifestations.
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JSS Academy of Higher Education and Research Centre, Mysuru, Karnataka

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40. Prevalence of Thyroid Dysfunction in Type 2 Diabetes Mellitus and its Relationship to Glycemic Control: A Hospital-Based Study from North-Eastern India
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39. Smoking Induced Hyperhomocysteinemia and Polycythemia in Young Adults

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40. Autoimmune Encephalitis Presenting with Neuropsychiatric Symptoms and Dementia-A Rare Case Report

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41. A Case of Autoimmune Encephalitis

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42. Internuclear Ophthalmoplegia caused by Posterior Circulation Stroke

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43. An Unusual Case of Encephalitis

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46. An Interesting Case of Neurobrucellosis

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47. A Case Report on Neurofibromatosis Type 1 and Associated Vertebral Artery Vasculopathy

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51. Hemichorea/Hemiballism Associated with Hyperglycemia

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52. Plasmodium Falciparum Malaria Presenting as CVA with Quadriplegia

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53. A Case of Progressive Myoclonic Epilepsy with Cognitive Decline

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    IV Nagesh, Shashidhar
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49. Tuberculosis and Leprosy Co-Infection
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50. Disseminated Cryptococcosis Presenting as Cellulitis in a Renal Transplant Recipient
    Mahesh B Gullapalli, A Kalalinhidy, V Shanthy, Rishna Vijayaraghavan, Vidy Shankari
    Southern Railway Headquarter Hospital, Chennai, Tamil Nadu
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1. Benign Recurrent Intrahepatic Cholestasis (BRIC) – A Case Report
   | Stephan Benny, Ashok ML
   | BMCRI, Bangalore, Karnataka

2. Plasmapheresis in Yellow Phosphorus Poisoning
   | Naveen AS, Senthil N
   | Sri Ramachandra Institute of Higher Education and Research, Chennai, Tamil Nadu

3. An Interesting Case of Chronic Hyperbilirubinemia : Diagnostic Dilemma
   | Sumant Balgandi
   | Karnataka Institute of Medical Sciences, Hubli, Karnataka

4. A Study on the Extrahaepatic Manifestations of Nonalcoholic Fatty Liver Disease
   | Shiva Kumar A, Rajan Priya
   | Little Flower Hospital and Research Centre, Angamaly, Kerala

5. A Rare Presentation of Wilson's Disease as Coombs Negative Hemolytic Anemia in Pregnancy
   | Shivanagowda HG, Madhulata Agarwal, Ashwini Mathur, Hemant Malhotra
   | SMS Medical College and Hospital, Jaipur, Rajasthan

6. Primary Hepatic Tuberculosis Presented as Isolated Liver Abscess–A Case Report
   | Srinu Bodaballa
   | Alurni Siraama Raju Academy of Medical Sciences, Eluru, Andhra Pradesh

7. Underlying Silent Wilson Disease Presenting as Acute Liver Failure Due to Hepatitis E Superinfection
   | Divakar Kumar, Pratik Mazumdar, Somnath Sengupta, Vidyapati
   | Rajendra Institute of Medical Sciences, Ranchi, Jharkhand

8. Seroepidemiology of Hepatitis A Virus as Isolated Liver Abscess-A Case Report
   | Somnath Sengupta, Vidyapati, Pratik Mazumdar
   | KLES Jawaharlal Nehru Medical College, Belgaum, Karnataka

9. A Case of Refractory Anemia in Male Cheppuri Abhinav
   | G Usha
   | Durgabai Deshmukh Hospital and Research Center, Hyderabad, Telangana

10. Acute Coronary Syndrome as a Presenting feature of Primary Polycythemia Vera
    | Somnath Sengupta, Vidyapati, Pratik Mazumdar
    | Rajendra Institute of Medical Sciences, Ranchi, Jharkhand

11. Acute Myeloid Leukemia presenting as Spondyloarthritits
    | Pinky Chhatterpal, Kuldeep Kumar, Kapil Sharma, Abha Sharma, Rajnish K Avasthi
    | University College of Medical Sciences & GTB Hospital, Delhi

12. Evans Syndrome : A Case Report
    | Manoj AG, Mahesh Kakkanale, PN Venkatarghnamma
    | Sri Devaraj Urs Medical College and Research Institute, Kolar, Karnataka

13. A Rare Case of Congenital Type 1 Meth-haemoglobinemia
    | Divakar Kumar, Pratik Mazumdar, Somnath Sengupta, Vidyapati
    | Rajendra Institute of Medical Sciences, Ranchi, Jharkhand

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1. A Rare Case of Rosai-Dorfman Disease
   | K Bhattacharjee, Aniruddha Das
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   | Madras Medical College, Chennai, Tamil Nadu

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   | Rindha V, Anitha Pasha
   | Deccan College of Medical Sciences, Hyderabad, Telangana

4. A Case Report: Chronic Myeloid Leukemia with Eosinophilic Predominance
   | Shreechand Kashyap, Pritam Sharma, Pratik Agarwal
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5. A Case Report on Familial Protein S Deficiency
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   | Karpaga Vinayaga Institute of Medical Sciences and Research Center, Dist. Maduranthakam, Tamil Nadu

6. A Rare Case of Non Secretory Multiple Myeloma
   | Harshil Trivedi, Aadish Jain, SG Gavaiwar, Vinip Porwal
   | RD Gardi Medical College, Ujjain, Madhya Pradesh

7. Immune Thrombocytopenic Purpura with Hepatitis C Infection
   | Manoj Prakash Jeyaseelan, Vijayashree Gokhale
   | Dr. DY Patil Medical College & Hospital, Pune, Maharashtra

8. Ischæmic Monomeric Neuropathy as an Initial Presentation in a Young Male with Sickle Cell Anaemia
   | Vijayalaxmi Dharmagoudar, Madhav Prabhu
   | NLS Jawaharlal Nehru Medical College, Belgaum, Karnataka

9. A Case of Refractory Anaemia in Male
   | Chempuri Abhinav, GIUSA
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    | Rajendra Institute of Medical Sciences, Ranchi, Jharkhand
14. A Fatal and Unusual Case of Spontaneous Tumour Lysis Syndrome as Initial Presentation of a Haematological Malignancy
Swapnil Suresh Patil, Bhumiika Vaishnav Dr. DY Patil Medical College Hospital and Research Center, Pune, Maharashtra

15. A Case of Primary Antiphospholipid Antibody Syndrome
Thirumal KT, S Gurushanthappa JMJ Medical College, Davangere, Karnataka

16. An Interesting Case of Polycythemia Rubra Vera Presenting as Erythromelalgia
Jayakrishna Nair, Saumya Ranjan Tripathy, Bidyut Ku, Das SCB MCH, Cuttack, Odisha

17. A Rare Case of Hairy Cell Leukemia
Yoganand Coimbatore Medical College Hospital, Coimbatore, Tamil Nadu

18. A Rare Cause of Anemia in a Pregnant Female - A Case Report
Teja Chennamsetty, P Venkata Krishna, D Kalyani, VS Sai Lakshmi Siddhartha Medical College, Vijayawada, Andhra Pradesh

19. Rifampicin Induced Thrombocytopenia
Lathapiyam Ambhekar, K Sivakumar Coimbatore Medical College Hospital, Coimbatore, Tamil Nadu

20. Castlemain’s Disease – A Diagnostic Challenge
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21. An Interesting Case of Hereditary Spherocytosis
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22. An Interesting Case of Generalized Lymphadenopathy
M Praveen Kumar Tirunelveli Medical College, Tirunelveli, Tamil Nadu

23. Pregnancy Induced Thrombocytopenic Purpura
Aparna Savala Raskar, Sriram Eswaran, Vishal Gupta Seth GS Medical and KEM Hospital, Mumbai, Maharashtra

24. Hepatitis E Virus – Associated Aplastic Anemia
S Karthikeyan, Navin Boopathy, S Prasanth, N Jeeva Nizam’s Institute of Medical Sciences, Hyderabad, Andhra Pradesh

25. Multiple Hematomas in Congenital and Multiple Petechial Hemorrhages
Vishwanath Malakappa Jalawadi, SR Rangabashyam Vinayaka Mission’s Research Foundation – Deemed To Be University, Bangalore, Karnataka

26. A 22 Year Old Male presented as Fever and Multiple Petechial Hemorrhages
Arpit Kapoor, Rommel Tickoo, Rahul Naithani Max Super Specialty Hospital, Saket, New Delhi

27. Multiple Hematomas in Congenital Factor XII Deficiency Complicated by Systemic Lupus Erythematosus Flare
Naveen Singh, T Saravanan PSG Institute of Medical Science and Research, Coimbatore, Tamil Nadu

28. Pernicious Anemia - The Great Pretender
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29. Sickle Cell Disease First presenting as Acute Chest Syndrome during Pregnancy
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30. From ITP to Evans’ Syndrome: A Real Eye Opener
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31. A Clinico-Pathological Study of Acute Myeloid Leukemia with Special Reference to Flow Cytometry and Cytogenetics
Nikhil Kumar, Jina Bhattacharyya, Sangit Dutta, SK Baruah Gauhati Medical College and Hospital (GMC), Guwahati, Assam

32. Plasmic Score - A Marker of TTP
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33. A Rare Case of Aspirin Induced Thrombocytopenia
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34. Refractory Thrombocytopenia in a Dengue Patient
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35. A Case of Primary Antiphospholipid Syndrome
K Sivakumar Coimbatore Medical College Hospital, Coimbatore, Tamil Nadu

36. A Rare Presentation of Multiple Myeloma
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37. Multiple Hematomas in Congenital Haemoglobinuria with Pigment Neurone Plasmocytosis
Ranjith Kumar, Aparna P, Achyuthan, SB Prabhu GSL Medical College, Rajahmundry, Andhra Pradesh

38. A Rare Case of Paroxysmal Nocturnal Haemoglobinuria with Pigment Neurone Plasmocytosis
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39. A Rare Case of Paroxysmal Nocturnal Haemoglobinuria with Pigment Neurone Plasmocytosis
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40. Arthritis Mutilans in a Patient with Psoriasis
S Prasanth, N Jeeva Department of General Medicine, Vinayaka Mission’s Research Foundation – Deemed To Be University, Vinayaka Mission’s Medical College & Hospital, Karaiyal, Puducherry

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1. A Rare Presentation of Multiple Myeloma
G Shanthosh, J Sangunji Madurai Medical College, Madurai, Tamil Nadu

2. A Rare Case of Pleural Effusion as the Initial Presentation of Acute Myeloid Leukemia
Akanksha Sinha, Pankaj Hans, Madan Pal Singh Patna Medical College and Hospital, Patna, Bihar

3. Case Study of T Cell Lymphoma with Paraneoplastic Neurological Manifestation – A Rare Presentation
Lekshmi Sreekumar, MGK Pillai, Sabarish Amrita Institute of Medical Sciences, Kochi, Kerala

4. A Rare Case of Extramedullary Plasmacytoma Progressed to Multiple Myeloma
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6. Rare Presentation of Non Hodgkin Lymphoma of Uterine Cervix
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7. Eccrine Spiradenoma
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8. A Case of Non Secretory Myeloma
Adhikesavan P Coimbatore Medical College Hospital, Coimbatore, Tamil Nadu

9. Spontaneous Soft Tissue Hematoma -A Rare Presentation of CML
Anand Jeeya Swamy R, Ravi Chandran Tirunelveli Medical College, Tirunelveli, Tamil Nadu

10. Primary Spinal Epidural Lymphoma as Non-Hodgkin’s Lymphoma of Bone
S Naishitya ESICMC PGIMSR, Bangalore, Karnataka

11. A Rare Case of Polycythemia Vera Presenting as Portal Vein and Splenic Vein Thrombosis
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12. Mediastinal Ewing’s Sarcoma: A Rare Case Report
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13. An Unusual Presentation of Prostate Malignancy
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Poisoning and Toxicology

1. Interesting Case Series of Wasp Sting
Asrar Ahmed, Akshay Jain, Katuri Medical College and Hospital, Guntur, Andhra Pradesh

2. A Case Report: Chronic Lead Poisoning Presenting as Acute Abdomen
Chandana Dharmana, Ramaswamy Mushnam, B Prahlad, Buchi Babu A, MD Zakria, Shadan Institute of Medical Sciences, Hyderabad, Telangana

3. Intoxcarb Poisoning - A Rare Presentation as Methemoglobinemia
H Balasathryaraj, C Sridhar, Government Stanley Medical College Hospital, Chennai, Tamil Nadu

4. Salt Sucking Snake Bite
S Shree Balaji, M Raveendran, Coimbatore Medical College Hospital, Coimbatore, Tamil Nadu

5. Vasulotoxic Features In Cases Of Neurotoxic Snake Bite
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6. Neurotoxic Features in Cases of Vasculotoxin Snake Bite
Siladhath Srim Pattnaik, CBK Mohanthy, BM Mohapatra, AN Sahu, SCB, MCH, Cuttack, Orissa

7. An Unusual Bee Sting - A Rare Case Report
M Srikanth Goud, Shruthi B, Manoj Kumar BK, Adichunchanagiri Institute of Medical Sciences, Dist. BG Nagara, Karnataka

8. Profile of Poisoning in Elderly - A Cross Sectional Study
Devasena, Sukanya, Hariharan, Stanley Medical College, Chennai, Tamil Nadu

9. Occult Snake Bite
Samatha Mukamalal, MGM Medical College, Aurangabad, Maharashtra

10. Chronic Plumbism A “Neglected” Cause of Chronic Kidney Disease
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11. An Unusual Cause of Rhabdomyolysis
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12. Ischemic Stroke following Snake Bite (Bitten and Swaying) – Interesting Case Report
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13. Acute Pancreatitis after Scorpion Sting
Akshay Jain, Jayaprakash Appajigal, Vijay G Somannavar, KLES Jawaharl Nehru Medical College, Belagavi, Karnataka

14. Methemoglobinemia
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15. A Rare Case of Toxic Methemoglobinemia
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16. A Rare Case of Toxic Methaemoglobinemia
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17. A Study on Factors affecting the Severity of Acute Kidney Injury (AKI) in Russell's Viper Bite
Chacko Thkkehchalakk Thomas, JK Joseph, MP Jose, Little Flower Hospital and Research Centre, Angamaly, Kerala

18. Hypopituitarism: An Unusual Case Of Snake Envenomation
Hamsa BT, Sri Devraj Urs Medical College, Kolar, Karnataka

19. Study of Clinical Significance of Serum Amylase Level in Acute Organophosphorus Poisoning
Namita Walter, RJ Khare, Pt. JNMM College, Raipur, Chhattisgarh

20. A Weird and Deadly Plant – Gloriosa Superba
Ravuri Usha Rani, Kalyan U, Srinivasa Rao, PES Institute of Medical Sciences and Research, Kuppan, Andhra Pradesh

21. An Interesting Case of Acute Alopecia Areata
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22. A Snake Bite Induced Toxic Leucoencephalopathy
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23. A Snake Bite Induced Toxic Leucoencephalopathy
CWasiak Arapm, Nagarajan Natarajan, Srinivasa Rao, Pavan Kumar, PES Institute of Medical Sciences & Research, Kuppan, Andhra Pradesh

24. A Case of Yellow Phosphorus Induced Acute Hepatitis
Esha Roy, AP Thispensamy, PES Institute of Medical Sciences and Research, Kuppan, Andhra Pradesh

25. A Rare Neurotoxic Red Tailed Skink Bite
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26. The Phoebine ‘Singe’ed’ Heart - Fatal Cardio-Toxicity Due to Aluminium Phosphate Poisoning
Shilpa Thakre Deoke, PK Deshpande, Twinkle Chandrakar, Harshal Khobragade, NKP Salve Institute of Medical Sciences and LMH, Nagpur, Maharashtra

27. Nitrobenzene Poisoning presenting as Methemoglobinemia
Pradeep, BM Vishwanath Jagadguru Jayadeva Murugharajendra (JJM) Medical College, Davangere, Karnataka

28. Amodipine Poisoning: Experience with ECMO as a Life Saver
Vijaya Prakash, Vijay Anand, Kovai Medical Center and Hospital, Coimbatore, Tamil Nadu

29. Rare Complication of Snake Bite
Bharathi Sezhian AS, SR Subramanian, Sureshkkhan, Kalaisezhian, IRSath Government Mohan Kumaramangalam Medical College, Salem, Tamil Nadu

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Manju Rose Sebastian, Betsy Mathew, Alok Shetty, Jonita Fernandes, St. John's Medical College, Bangalore, Karnataka

2. Clinical Profile of Elderly Patients Presenting with Persistent Dizziness
S Kartikeyan, Medha Y Rao, Jolly Anil John, Sarada, Ramaiah Medical College, Bengaluru, Karnataka

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2. Acute Generalised Exanthematous Pustulosis
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3. Statin Induced Rhabdomyolysis with Co-Existing Hepatitis
Suguna L, SN Patil, SS Antin, Navodaya Medical College, Raichur, Karnataka

4. Vitamin B 12 Deficiency : A Rare Cause of Roth Spot
Manoj AG, Prabhakar K, Sri Devraj Urs Medical College and Research Institute, Kolar, Karnataka

5. Tamoxifen Induced Gingival Hyperplasia: A Rare Adverse Effect
CH Janardhana Naik, Krishna Naik P, ART Centre, Govt. General Hospital Kasaragod, Kerala

6. Prevalence of Depressive Symptoms in Medical Students – A Pilot Study
MS Madhuri, Natarajan S, Sridhar MS, Meenakshi Medical College Hospital and Research Institute, Enathur, Kanchipuram Tamil Nadu; Apollo Institute of Medical Sciences and Research, Murakambattu, Chittoor, Andhra Pradesh

7. A Case of Hypokalemia Paralysis in Hypothyroidism
Toopran Samatha, Osmania Medical College, Hyderabad, Telangana

Adnan Imam, Prashant ED, Khaja Bandanawaz Institute of Medical Sciences, Kalaburagi, Karnataka

9. A Case of Kasabach Merritt Syndrome
Subhadip Paul, Agartala Government Medical College, Agartala, Tripura

10. Study on Thrombocytopenia in Pregnancy in a Tertiary Care Centre
Akanksha Gautam, Jhalawar Medical College, Jhalawar, Rajasthan

11. Brachioradial Pruritis - A Neuropathic Itch
Divya Mandal, Amod Manocha, Max Super Specialty Hospital, Saket, Uttar Pradesh

12. Carbamazepine Induced Erythroderma
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