CORRESPONDENCE

Disseminated Enterococcus Infection: A Rare Cause of Lumbosacral Radiculopathy

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Sir,

Enterococcus, normal inhabitants of the large intestine of humans, have potential to cause varied infections, including infections of the urinary tract and central nervous system.

A 50-year-old, nondiabetic male presented with fever and low back pain radiating to both legs for 10 days, which increased with standing and forward bending, and was accompanied by numbness on the lateral parts of both legs, and had not undergone urethral instrumentation.

On examination, he was febrile with mild splenomegaly. Central nervous system examination revealed decreased power on flexion and extension in the left knee joint and ankle joint dorsiflexion (grade 4/5). Touch, pain, and temperature sensations were decreased on the lateral part of the legs and feet bilaterally. The rest of the examination was normal, and tenderness was present on the L5 vertebra.

Hemoglobin was 10.1 gm/dL, total leukocyte count 12,200/mm³, platelets 92,800, ESR 70, and gCRP was 94.2 mg/L. Biochemical investigations were unremarkable. Urine microscopy showed 10-15 pus cells/ HPF. Ultrasound of the abdomen and echocardiography were normal. Other investigations for tropical causes of fever were negative. Urine culture grew Enterococcus spp.

The magnetic resonance imaging (MRI) spine revealed a heterogeneously enhancing soft tissue in the anterior part of the spinal canal from L4 to S1 level, erosion and enhancement of the posterior body of the L5 vertebra (Figs 1A to F). The analysis of cerebrospinal fluid (CSF) showed protein 100 mg/dL, glucose 55 mg/dL, and a few Grampositive cocci were seen. In CSF workup for tuberculosis, malignant cells were negative; however, CSF culture reported growth of Enterococcus faecalis. Echocardiography was normal. He was treated with inj. vancomycin for 2 weeks, and on discharge, linezolid was given for 3 more weeks. On follow-up after 1 month and 3 months after discharge, he was afebrile, back pain-free, jaundice disappeared, and weakness was fully recovered but with numbness on the dorsal part of the third to fifth toes of the left foot.

The meningitis due to Enterococcus remains an uncommon entity and involves patients with head trauma, shunt devices, or CSF leakage; however, occurrence as "spontaneous," secondary to enterococcal infections from endocarditis or pyelonephritis, has also been reported.¹

The hematogenous route from a distant source or iatrogenic inoculation is the commonest route of spinal infection. The spondylodiscitis due to Enterococcus is infrequent.² A case of an anterior epidural inflammatory mass and lumbosacral involvement secondary to an infection of urinary origin due to Enterococcus was treated with antibiotic treatment.³ The medical treatment with antibiotics in pyogenic spondylodiscitis is recommended, however, surgical intervention with antibiotics remains another option.4

REFERENCES

- 1. Pintado V, Cabellos C, Moreno S, et al. Enterococcal meningitis: a clinical study of 39 cases and review of the literature. Medicine (Baltimore) 2003;82(5):346-364.
- Orfanu A, Leustean A, Orfanu R, et al. Enterococcus faecalis: an unusual etiology of lumbar spondylodiscitis in a patient with chronic kidney disease (undergoing hemodialysis) and sigmoid diverticulosis. Neurol India 2017;65(6):1393-1395.
- García F, Fernández-Solà A, Quintana AMG, et al. Espondilodiscitis por enterococo: una entidad inusual [spondylodiscitis caused by Enterococcus: an unusual entity]. Enferm Infecc Microbiol Clin 1995;13(8):473-476.
- Skaf GS, Domloj NT, Fehlings MG, et al. Pyogenic spondylodiscitis: an overview. J Infect Public Health 2010:3(1):5-16.



Figs 1A to F: On contrast-enhanced MRI of the lumbosacral spine (A and B), sagittal and axial T2WI show an ill-defined, heterogeneously hyperintense signal intensity in lumbar epidural and pre/ paravertebral soft tissue (A and B: solids arrows and asterisks, respectively), elucidating heterogeneous enhancement on postcontrast images suggestive of inflammatory changes (phlegmon) with necrotic areas (C and D: pre- and, E and F: postcontrast T1WI, solid arrows). Mildly enhancing heterogeneous T2 hyperintense signal is seen involving the L5 vertebra—more on posterior inferior aspect (C and E: pre- and postcontrast T1WI, open arrows) with T2 hyperintense but nonenhancing L5-S1 IVD, features suggestive of infective etiology with a possibility of atypical spondylitis