

Stasis Ulcer and Its Possible Etiologies

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Received: 02 September 2024; Accepted: 08 July 2025



A 62-year-old female, a known case of hypothyroidism, diabetes mellitus, and varicose veins, presented with a complaint of swelling of both lower limbs and ulceration on the left leg for 2 months. She also complained of dyspnea on exertion. As per the history, ulcer began as a pea-sized blackish discoloration on the left lower limb just above the ankle joint on medial aspect (Fig. 1) and increased to 6 × 8 cm, with irregular and raised margins (Fig. 2). The base of ulcer had whitish-yellow exudate with no healthy granulation tissue. The surrounding



Fig. 1: Pea-sized blackish discoloration on the left lower limb just above the ankle joint on medial aspect



Fig. 2: Ulcer progressively increased in size with irregular and raised margins

skin revealed hyperpigmentation. On examination, she had bilateral lower limb pitting edema—grade IV (Fig. 3), extending from above ankle to mid-calf region. The skin appeared to be shiny. Investigations revealed microcytic hypochromic anemia and high fructosamine levels. There was no history of trauma. Anti-HIV was negative. A biopsy was taken, thus revealing it to be a stasis ulcer. Our initial assessment for the causes of this ulcer included anemia resulting in poor perfusion, venous insufficiency exacerbated by varicose veins, and hypothyroidism or diabetes mellitus contributing to poor wound healing.

In such cases of nonhealing ulcer, the differential diagnosis can include various conditions such as:

- Venous ulcers due to chronic venous insufficiency—typically seen on medial aspect of lower leg just above the ankle.
- Arterial ulcer due to underlying peripheral arterial disease—preferentially seen on lateral aspect of lower leg.
- Neuropathic ulcers—generally seen on plantar surface of foot, metatarsal heads, tip of the toes, and usually painless.



Fig. 3: Lower limb showing grade IV pitting pedal edema

- Decubitus ulcers—typically seen in bedridden patients over bony prominences such as sacrum, heels, and ankles.

Other causes may also include pyoderma gangrenosum, chronic infection, trauma, and skin cancers (squamous cell carcinoma or melanoma).

Severe anemia, specifically microcytic hypochromic anemia, impairs wound healing due to poor tissue perfusion and oxygenation.¹ Hypothyroidism is also an important factor in delaying wound healing by affecting skin integrity and overall metabolism. It may contribute to peripheral edema as well, thereby complicating venous insufficiency and ulceration.² Diabetes mellitus is also known for its notorious role in causing delay in wound healing. The combination of hypothyroidism, diabetes mellitus, varicose veins, and severe anemia creates a challenging environment in such a situation.

The patient was advised for oral iron therapy, leg elevation, compression stockings, adequate sugar control, and thyroid hormone replacement on discharge. She is currently doing well on follow-up.

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How to cite this article: Soni V, Batra T, Kakar A. Stasis Ulcer and Its Possible Etiologies. *J Assoc Physicians India* 2025;73(8):100–100.