Multiple Indurated Ulcers on Limbs and Buttocks

Chief Complaints
A 30-year-old morbidly obese housewife presented with one-year history of multiple ulcers and scars over limbs and buttocks [Figures 1-3].

History
Most of the ulcers started as mildly painful red raised areas that later ulcerated over the next few days. Few occasionally showed pus discharge. Only some lesions healed on their own with scarring, rest mostly persisted. The patient also revealed to be having multiple episodes of recurrent severe central chest pain for the last one and a half years. Extensive evaluation, including cardiological screening for the same, had been normal and she had minimal improvement in pain with prescribed medicines. She gave history of taking up to three daily intravenous and intramuscular painkiller injections administered by a local chemist who was a relative of the patient for one and half years. These provided temporary but good relief in pain. The patient also confessed to family discord and admitted that injections also helped her tide over the stress.

Examination
There was involvement of flexural aspect of upper limbs, including antecubital fossa, buttocks, lower thighs, shin, dorsal, and lateral foot in the form of multiple variable-sized well-defined round-to-oval superficial-to-deep ulcers with hyperpigmented indurated margins. Few had eschar and few had yellowish slough on the floor. Multiple depressed hyperpigmented scars were present interspersed between ulcers. Bilateral antecubital fossae had cord-like indurated veins on palpation. There was also difficulty in finding venous access during blood sampling.

Question: What is the diagnosis?
Answer: Pentazocine-induced ulcers

Discussion
Pentazocine (Fortwin) was first introduced in 1967 as a non-narcotic and non-addictive analgesic. Its addictive potential and ability to cause cutaneous ulcers were soon documented in 1971. To date, pentazocine-induced ulcers are often clinically confused with pyoderma gangrenosum, vasculitis, and infective causes of ulcers, and patients are subjected to unnecessary investigations, including...
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autoimmune workup, skin biopsies, and cultures, to rule out the same. Many even receive anti-tubercular drugs or steroids and immunosuppressants as a part of therapeutic trials. Diagnosis is challenging as most patients are not forthcoming with the history of drug use.[1]

The exact mechanism by which parenteral administration of pentazocine induces cutaneous and muscle changes is largely unknown, with some authors postulating that tissue precipitation of pentazocine incites an inflammatory response with the trauma of repeated injections adding to the same. The time interval from the start of pentazocine injection to cutaneous changes usually ranges from 2 weeks to 3 years.

Pentazocine abuse should be considered as a differential diagnosis in cases with non-healing ulcers, especially when asymmetrically distributed concomitant clean punched-out ulcers are seen.[2] A good clinical history and examination are indispensable to the diagnosis of pentazocine-induced ulcers.

A history of chronic painful medical or surgical conditions is an important diagnostic clue. Psychiatric illnesses or substance abuse are additional risk factors that should be taken into account. Easy access to pentazocine (e.g., from the profession) or chance finding of pentazocine ampoules with the patient should be noted. Pentazocine-induced ulcers are typically deep and punched-out with surrounding skin showing hyperpigmentation and woody induration, seen along the sites of venous access or at sites of intramuscular injections. Other associated features include fibrous myopathy and puffy-hand syndrome. Confirmation of the diagnosis requires a positive urine screening for pentazocine by thin-layer chromatography.[3]

Our patient presented with classical history and cutaneous findings such as typical indurated ulcers and cord-like indurated veins in cubital fossa on palpation, suggestive of venous thrombosis and fibrosis, with a lag period of 6 months between initiation of pentazocine use and the initial development of ulcers. No other differential diagnoses were kept in view of suggestive clinical findings and as the patient admitted to pentazocine use. The diagnosis was confirmed by a positive urine chromatography for pentazocine on three separate days. Biopsy was done from the edge of the most recent ulcer on the thigh and showed subcutaneous necrosis and mixed cell infiltrate without evidence of vasculitis being overall non-contributory. The patient showed improvement with daily dressing and debridement. She was attached to an opioid de-addiction clinic upon discharge.

Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent forms. In the form, the patient(s) has/have given his/her/their consent for his/her/their images and other clinical information to be reported in the journal. The patients understand that their names and initials will not
be published and due efforts will be made to conceal their identity, but anonymity cannot be guaranteed.

**Financial support and sponsorship**

Nil.

**Conflicts of interest**

There are no conflicts of interest.

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