Podagra

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A 43-year-old male presented with painful swelling over the right great toe since one week [Figure 1]. It started as a small, asymptomatic swelling one month ago that gradually increased in size and became painful. No similar lesion was present elsewhere on the body. He denied history of any drug intake prior, morning stiffness or major joint pain, major illness, or family history of similar complaints.

Cutaneous examination showed firm, skin coloured to yellowish, tender nodule 3 × 3 cm in size over the right great toe. Similar small nodule was present on the adjacent toe. Hematological examination showed increased serum uric acid levels (11.7 mg/dL), while other investigations including liver and renal function tests, serum electrolytes, total blood count, and coagulation profile were all within normal limits. Fine needle aspiration cytology showed multiple needle-shaped crystals with negative birefringence under polarized microscope [Figure 2]. Histopathology showed an amorphous material formed by aggregates of urate crystals in the upper and mid dermis with a surrounding inflammatory infiltrate, confirming our diagnosis [Figure 3].

The name "gout" is derived from the Latin word "gutta" means "drop". Ancient Greeks first noticed the predilection for the deposition of the crystals at the base of great toe and they referred it as podagra which means "foot-grabber". They thought that podagra occurs as a result of the bodily humors falling to the affected body part as suggested by humoral theory of Hippocrates.[1]

Gout is a metabolic disease of purine metabolism in which crystals of monosodium urate are deposited in various tissues and joints initiating an inflammatory process and subsequent destruction. Monoarticular joint involvement is most common especially involving the base of the great toe, the metatarsophalangeal joint (50%). This joint is involved because of local anatomical characteristic of lower temperature and repetitive

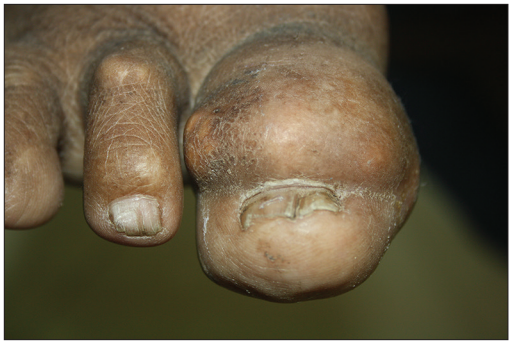

Figure 1: Firm, yellowish tender nodule measuring 3 × 3 cm over right great toe

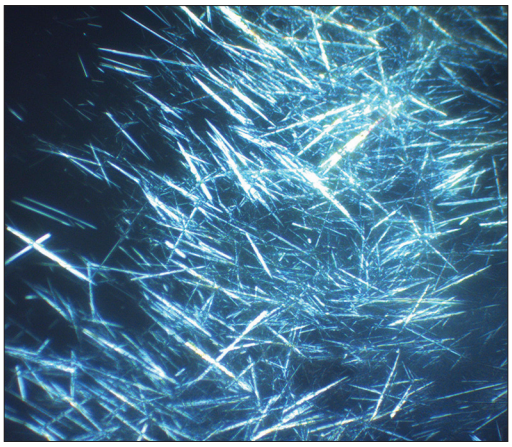

Figure 2: Polarized microscopy showing characteristic needle-shaped negative birefringence urate crystals

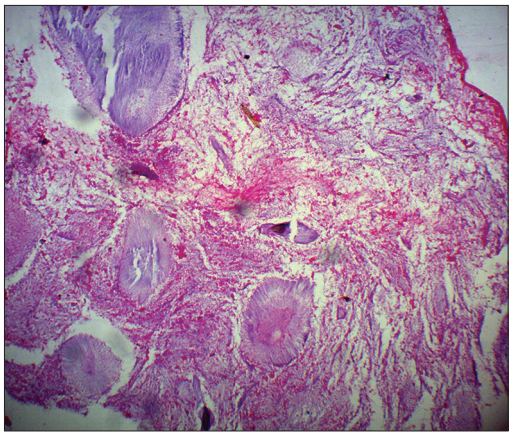

Figure 3: Multiple deposits of an amorphous material formed by aggregates of urate crystals in the upper and mid dermis (H and E, ×40)

physical trauma, which makes it an ideal site for crystal deposition. An attack of gouty arthritis starts abruptly and reaches peak intensity within a few hours.[1]

The differential diagnoses would be rheumatoid arthritis, pseudogout, and calcinosis cutis. Treatment is multipronged in the form of relieving the inflammatorty pain of acute attacks, the lowering uric acid levels, and prevention of urate crystal deposition.[2]

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