Pyogenic granuloma: A diagnostic dilemma

Sir,

Pyogenic granuloma also known as lobular capillary hemangioma is an acquired vascular hyperplasia of the skin and mucous membranes. It has been seen to develop following minor trauma, chronic irritation, viral infections and hormonal variations.[1,2]

A 27-year-old woman presented with a 10 month history of an asymptomatic, thick, scaly lesion over the plantar aspect of left foot. It appeared during her third trimester of pregnancy. It was nonprogressive and not associated with bleeding. Physical examination revealed a well-defined, erythematous, hyperkeratotic partially blanchable, and a compressible plaque of size approximately 1 cm in diameter, covered with semi-adherent whitish coarse scales, present over plantar aspect of the left foot [Figure 1]. Dermoscopic examination revealed reddish homogeneous areas with white scales more marked at some places [Figure 2].

We kept the possibility of a vascular tumor and did an excisional biopsy. Histopathological examination revealed thickened stratum corneum and mild acanthosis. Dermis showed many capillary-sized vascular channels arranged in lobules along with mild chronic inflammatory infiltrate [Figures 3 and 4]. This confirmed the diagnosis of lobular capillary hemangioma.

This case was an atypical clinical presentation of pyogenic granuloma present at an unusual site. It was difficult to reach the diagnosis on clinical presentation alone and the dermoscopic picture was also not very typical of pyogenic granuloma. The most frequently occurring dermoscopic features of pyogenic granuloma are presence of reddish homogeneous areas (92%), white collarette (85%), “white rail” lines that intersect the lesion (31%), and ulceration (46%).[3]

The typical clinical presentation of cutaneous pyogenic granuloma is a painless, red, crusted or ulcerated papule on the skin surface, developing over several months and finally stabilizing to form a fibrotic angioma, mostly located on head and neck (62.5%), trunk (19.7%), and limbs (17.9%).[1,2] Oral mucosal nodules account for up to 70% of pyogenic granulomas in women.[2] Peak incidence is in the second decade of life, and they are often seen in children and young adults. Diagnosis of pyogenic granuloma is mostly made by history and clinical appearance, but in 38%, cases, clinical diagnosis proved to be wrong.[4] Misdiagnosis includes keratoacanthoma, inflamed seborrheic keratosis, melanocytic naevi, juvenile and malignant melanoma, warts, molluscum contagiosum, angiomia, glomus tumor, eccrine poroma, Kaposi’s sarcoma, and metastatic carcinoma.[5]

The pedunculated lesions are usually treated with cauterization or diathermy coagulation of the base, but recurrence rate is high after such treatment because the proliferating vessels at the base extend in a conical manner into the deeper dermis. According
to the literature, the recurrence rate is 16% if we excise deep, with an ellipse of skin beneath the lesion and close the wound with sutures. Other treatment modalities include imiquimod 5% cream, Nd: YAG laser, cryosurgery, intralesional steroids, flashlamp pulsed dye laser and injection of absolute ethanol.

Our case had an atypical presentation in the form of a small erythematous plaque without any history of bleeding, despite being present over trauma-prone area. Although pyogenic granuloma can be diagnosed clinically, atypical presentations can lead to a diagnostic dilemma and should be further investigated by biopsy to reach a final diagnosis and to rule out other serious conditions. Till date, the patient has not shown any recurrence at the site of surgery.

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Conflicts of interest
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