Pseudoepitheliomatous, keratotic, and micaceous balanitis with Koilocytes

Sir,

Pseudoepitheliomatous, keratotic, and micaceous balanitis (PKMB) of Civatte is a nonvenereal dermatosis occurring in uncircumcised elderly males. Invasive squamous cell carcinoma of low-grade malignant potential may arise from this condition. Herein, we report a case of PKMB in an elderly male patient, for its rarity and for the presence of koilocytes along with dysplastic changes on histopathological examination.

A 72-year-old male referred from the surgery department with a growth in the glans penis of 2-month duration. He had been referred after circumcision for a similar lesion in the prepuce of the same duration. The lesions were asymptomatic. There was no history suggestive of an anogenital wart or other venereal diseases in the past. The patient denied extramarital or premarital sexual contact. There was no history of any topical application over the lesion. On examination, the general condition of the patient was good, and the systemic examination was normal. Local examination revealed a verrucous plaque of size 2 cm × 2 cm over the coronal sulcus extending to the glans penis with adherent mica-like scale [Figure 1]. Diffuse depigmentation was noted on the glans. External urethral meatus and rest of the genital skin was normal. There was no regional lymphadenopathy. Complete hemogram and other blood biochemical investigations were within normal limits. Rapid plasma reagin test and enzyme-linked immunosorbent assay for HIV were nonreactive. Serotyping for human papillomavirus was not done because of nonavailability.

Histopathological examination of the verrucous plaque showed hyperkeratosis, parakeratosis, acanthosis, and elongation of rete ridges with dysplastic changes in the lower epidermis. Inflammatory infiltrate seen in the lower epidermis and upper dermis was predominantly of lymphocytes. Koilocytes were present in the full thickness of epidermis [Figure 2]. The serial sections studied did not show any evidence of squamous cell carcinoma. Fine-needle aspiration cytology was not done from the inguinal nodes as there was no inguinal adenopathy clinically.

Based on the clinical features and histopathological findings, the patient was diagnosed as a case of PKMB of Civatte. In view of the presence of dysplastic changes, the patient was referred to the surgery department for wide excision of the plaque and follow-up at regular intervals.

PKMB was first described by Lortat-Jacob and Civatte in 1961 as a focal thick hyperkeratotic mass in the glans penis.[1] Malignant change in this condition was first reported by Beljaards et al. in the year 1987, in two cases.[2] The exact etiology of this condition is not known.

Clinically, PKMB presents as slow-growing hyperkeratotic plaques with mica-like scaling on the glans penis. Usually, it is asymptomatic; sometimes, there may be mild itching or irritation. Thick hyperkeratotic mass may form a penile horn with chronicity. Extension of hyperkeratotic plaques to perimeatal skin has been described by Zawar et al. PKMB may progress to verrucous carcinoma or invasive squamous cell carcinoma.

This disease has four stages: (a) initial plaque stage, (b) late tumor stage, (c) verrucous carcinoma, and (d) transformation into squamous cell carcinoma and invasion.[3]

The differential diagnosis for this condition includes verrucous carcinoma, invasive squamous cell carcinoma, penile horn, genital wart, and Erythroplasia of Queyrat. The diagnosis is confirmed by histopathological examination. The classical histopathological findings are hyperkeratosis, parakeratosis, acanthosis, and elongation of rete ridges;

![Figure 1: Hyperkeratotic verrucous plaque with micaceous scale on the glans penis](image1)

![Figure 2: Hyperkeratosis, parakeratosis, acanthosis, elongation of rete ridges, dysplastic changes in lower epidermis, and mononuclear infiltrate in the lower epidermis and upper dermis along with koilocytes seen in the full thickness of epidermis (H and E, ×100)](image2)
sometimes dysplastic changes in the lower epidermis with inflammatory infiltrate consisting of lymphocytes and eosinophils in the lower epidermis and upper dermis.[4]

Treatment varies with the stage of the lesion. Initial plaque stage without any cytological atypia, can be treated with topical 5% 5 fluorouracil cream, cryotherapy, podophyllin resin, and steroid cream.[4] The response to topical treatment varies; recurrences and partial response to topical therapy have been reported in various case studies. Cases showing cytological atypia can be managed with local surgical excision. Adequate surgical excision with a wide margin is advised for cases with histological evidence of malignancy. Because of low-grade malignant potential, conservative surgical excision is enough for most cases.[8]

This case is reported for its rarity and for the presence of dysplastic changes and koilocytes on histology. Whether the presence of koilocytes is due to coexistent HPV infection in PKMB or due to chronicity is not certain. The dysplastic changes in our case would have occurred as a natural course of the disease or due to associated HPV infection in view of the presence of koilocytes seen throughout the epidermis. It is important to follow-up all cases of PKMB with dysplastic changes and more so in the presence of koilocytes because koilocytes are seen in HPV infections, and HPV infection due to certain serotypes has malignant potential.

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Conflicts of interest
There are no conflicts of interest.

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