Net Quiz

Punctate keratotic papules and plaques over palm

A 56-year-old male agriculturist presented with asymptomatic papules and plaques over bilateral palms of three months duration. These lesions were gradual in onset and progressive in nature. They started with keratotic papules and later coalesced to form plaques. There was no history of vesiculation or oozing or of similar lesions elsewhere in the body. Examination revealed multiple hyperpigmented, hyperkeratotic papules and plaques with pitting on the thenar and hypothenar eminences of bilateral palms [Figures 1 and 2]. No other skin lesions were seen on the body. Nails and oral mucosa were normal. Characteristic findings were seen on histopathological examination of skin biopsy from the plaque [Figures 3-5].

WHAT IS YOUR DIAGNOSIS?

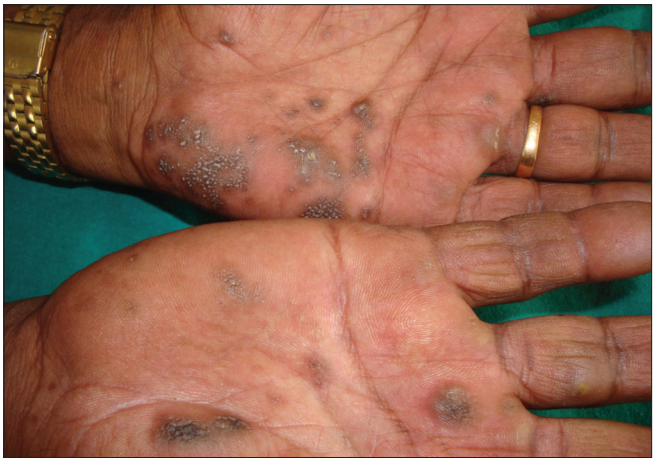

Figure 1: Punctate papules and plaques seen over both palms

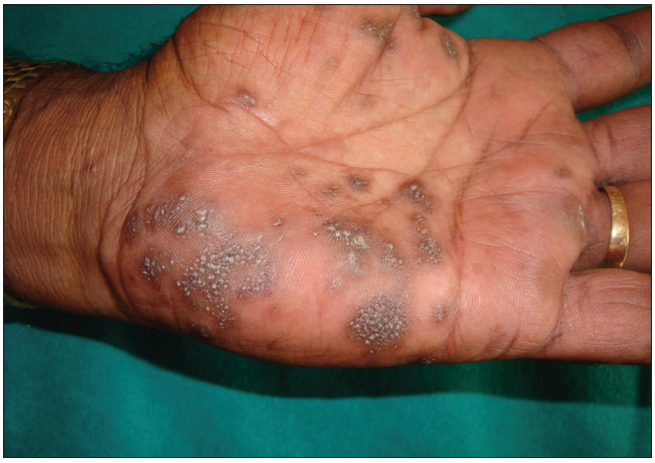

Figure 2: Close-up view of punctate keratotic papules and plaques

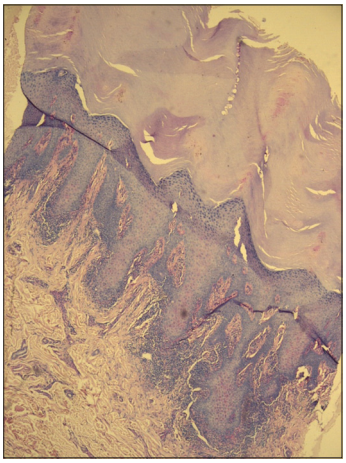

Figure 3: Compact orthokeratosis, hypergranulosis, irregular acanthosis, with vacuolar degeneration of basal layer of epidermis and band-like infiltrate of lymphocytes in papillary dermis. (H and E, ×10)

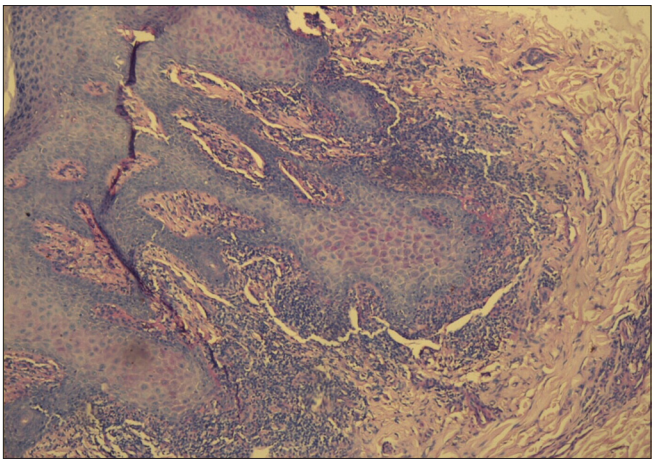

Figure 4: Closer view of vacuolar degeneration of basal cell layer and band-like infiltrate of lymphocytes in papillary dermis. (H and E, ×40)

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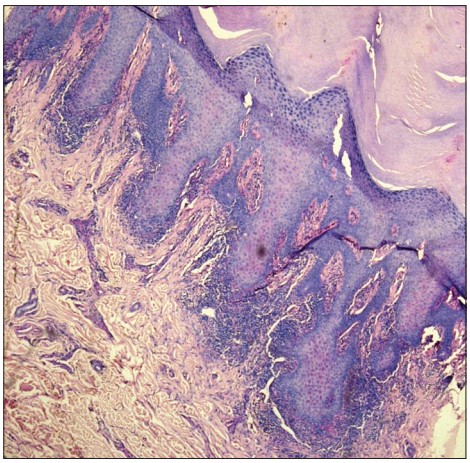

Figure 5: Band-like lymphocytic infiltrate and melanin incontinence is seen. (H and E, ×30)

Diagnosis: Hypertrophic lichen planus of palm

On histopathological examination epidermis showed compact orthokeratosis, hypergranulosis, irregular acanthosis with irregular downward proliferation of bulbous rete ridges with focal vacuolar alteration of basal layer with degeneration of basement membrane and scattered necrotic keratinocytes [Figure 3]. In papillary dermis, band-like dense lymphocytic infiltrate with congested capillaries and occasional melanophages was seen [Figure 4]. In our case, classic histopathology findings helped us in the final confirmatory diagnosis of hypertrophic lichen planus.

DISCUSSION

Keratotic papules and plaques with pitting over palms is always a diagnostic dilemma. The conditions to be considered for keratotic papules and plaques with pits over palms are punctate porokeratosis, and punctate palmoplantar keratoderma. Isolated pitting of palms is also seen in Pitted keratolysis, Darrier White disease, Gorlin (Basal cell nevus) syndrome, Zinsser Cole Engmann syndrome (Dyskeratosis Congenita), Cowden's syndrome and Aquagenic keratoderma. There is strong association of palmar pits with Dupuytren's contracture.

Punctate porokeratosis[1] (porokeratosis punctata palmaris et plantaris) appears during adolescence or adulthood. Multiple minute and discrete punctate, hyperkeratotic lesions surrounded by a thin raised margin are present over palm and soles. Lesions may be in linear arrangement or may aggregate to form plaques.

Punctate palmoplantar keratoderma[2] (keratosis punctata Palmaris et plantaris, Brauer-Buschke-Fischer Syndrome) is an autosomal dominant type of palmoplantar keratoderma. It develops between 12 to 30 years of age with variable penetrance. Clinically, it manifests with multiple, tiny, punctate keratoses over entire palmoplantar surfaces. Diffuse keratoses are seen over pressure points.

Chronic arsenic ingestion[3] can lead to arsenical keratoses, marked hyperpigmentation, and many types of skin cancer including basal cell carcinoma, squamous cell carcinoma and Merkel cell carcinoma. Arsenical keratoses are characterized by punctate, non-tender, yellowish, small 0.2–1-cm papules over sites of friction. Commonly, these papules are seen over the thenar and lateral borders of the palms, the base and lateral aspect of the digits, the soles and toes of the feet. Eventually, these papules may coalesce to form verrucous plaques with pits.

Lichen planus (Greek *leichen,* "tree moss"; Latin *planus,* "flat") is a common inflammatory papulosquamous disorder that affects the skin, mucous membrane, nail and hair. The prevalence of the disease is 1% of the general population. There are many reports of punctate keratoses of palms in lichen planus.[4, 5] Hypertrophic lichen planus (lichen planus verrucosus) usually occurs on extremities, especially the shins. It is the most pruritic variant of all lichen planus. Lesions are thick, elevated, purplish in color and hyperkeratotic. This variant usually heals with scar, hypo or hyperpigmentation. There are reports of metastatic squamous cell carcinoma (SCC) and keratoacanthoma arising from longstanding lesions of hypertrophic lichen planus.

Treatment of hypertrophic lichen planus is difficult. Topical potent corticosteroids can be used under occlusion. Intralesional injection of long-acting steroid (Triamcinolone acetonide) once in three to four weeks is effective. In case of resistant and extensive hypertrophic lichen planus, systemic immunosuppressives like mycophenolate moefetil, Cyclosporine can be used. There are many reports of good efficacy with systemic acitretin.

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