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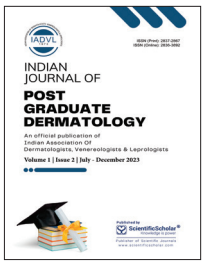

Correspondence

The Dual Keratoderma – Marginal Papular Acrokeratoderma with Punctate Keratoderma of Palmar Creases in a Young Female

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Dear Editor,

Palmoplantar keratoderma (PPK) comprises a heterogeneous group of disorders characterised by hyperkeratosis of the palms and soles.[1] Several modes of inheritance have been described, including autosomal dominant, recessive, X-linked and acquired.

Herein, we report a case with two different variants of PPK in the same patient.

A female patient in her 24th year complained of 4-5 year old painless lesions on her hands and feet. On examination, multiple superficial crateriform and keratotic papules were present mainly on the medial and lateral margins of soles and a few on the plantar surfaces of both feet. Small, round and keratotic pittings were present at the medial parts of distal palmar creases [Figure 1]. Hair, nails and mucosal surfaces were not involved. Her parents were not blood relatives. Family members had no history of similar complaints, any systemic involvement, chronic weight loss, drug or food allergy, recurrent rhinitis, itching or dry skin. Routine investigations, blood biochemistry, X-ray chest and ultrasound abdomen were normal. Venereal disease research laboratory test and test for human deficiency virus were non reactive. Histopathology of the intact lesion from the left sole revealed a sparse superficial perivascular lymphocytic infiltrate with mild epidermal hyperplasia. The papillary dermis was thickened, showing thick collagen bundles arranged in a vertical array. The granular layer was thickened and the stratum corneum showed marked compact orthokeratosis [Figure 2]. Genetic studies were not performed due to a lack of adequate facilities.

Based on the above findings, the clinical diagnosis of marginal papular acrokeratoderma and punctate keratoderma of the palmar creases was straightforwardly made and the patient was started on 40% of urea and emollients.

Acquired PPKs are commonly caused by inflammatory dermatoses but can also be associated with systemic or infectious diseases, induced by chemicals or drugs or be a sign of internal malignancy.[2] Hereditary PPKs are characterised by thickening of the stratum corneum, usually distinguishable by the mode of inheritance and associated cutaneous and extracutaneous clinical findings.[3,4] Clinically, three distinct patterns of PPKs are seen: [5]

1. Diffuse PPKs (even, thick and symmetrical hyperkeratosis all over the palms or soles)
2. Focal PPKs (large compact masses of keratin at the site of friction)
3. Punctuate PPKs (multiple, small and "raindrop-type" keratoses over the palmoplantar surface).

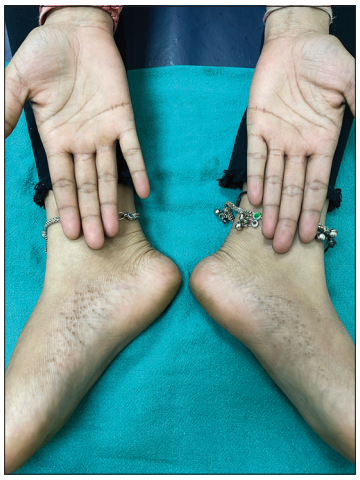

Figure 1: Marginal papular acrokeratoderma lesions in feet along with punctate keratoderma of the palmar creases in distal palmar creases.

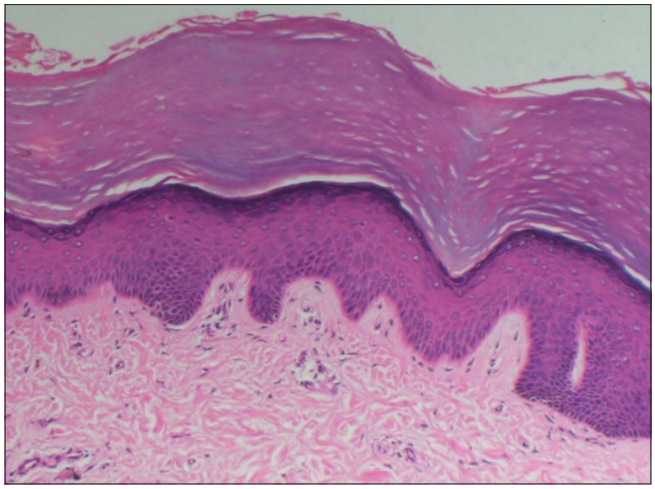

Figure 2: Histopathological examination showing marked compact orthokeratosis in stratum corneum, thickened granular layer and collagen arranged in vertical array in the papillary dermis (×40).

Punctate PPK is a rare subtype of PPK. These can have rarely associated features such as cystic eyelids, hypotrichosis, hypodontia (Schopf–Schulz–Passarge syndrome), ankylosing spondylitis, facial sebaceous hyperplasia, spastic paralysis and lipomata. Punctate PPK without associated features is classified as –

(1) Buschke fisher disease, (2) punctate keratoderma of palmar creases and (3) marginal papular acrokeratoderma.

The differential diagnosis includes arsenic keratosis, porokeratosis, verruca vulgaris, secondary syphilis and acquired immunodeficiency syndrome-associated keratoderma. The negative history of exposure to arsenic helped us rule out arsenic keratosis. Porokeratosis can be distinguished clinically and verruca vulgaris can bleed or show punctate thrombosed vessels on dermoscopy, whereas punctate PPK does not. Treatment options for this condition range from topical keratolytics in mild disease to occasionally systemic retinoids for severe cases and emollients.

This case is being reported in view of clinical rarity and unique presentation of *de novo* appearance of two autosomal dominant diseases in the same individual without any parent being affected.

Declaration of patient consent

Patient's consent not required as patient's identity is not disclosed or compromised.

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Nil.

Conflicts of interest

There are no conflicts of interest.

Use of artificial intelligence (AI)-assisted technology for manuscript preparation

The author(s) confirms that there was no use of artificial intelligence (AI)-assisted technology for assisting in the writing or editing of the manuscript and no images were manipulated using AI.

REFERENCES

1. Metze D, Oji V. Palmoplantar keratodermas. In: Bolognia JL, Schaffer JV, Cerroni L, editors. Dermatology. 4th ed. Philadelphia, PA: Elsevier Health Sciences; 2018. p. 924-43.
2. Patel S, Zirwas M, English JC 3rd. Acquired Palmoplantar keratoderma. Am J Clin Dermatol 2007;8:1-11.
3. Pai VV, Rao SS, Naveen KN. Sybert's keratoderma in three siblings. Indian J Dermatol 2010;55:297-9.
4. Has C, Technau-Hafsi K. Palmoplantar keratodermas: Clinical and genetic aspects. J Dtsch Dermatol Ges 2016;14:123-39, quiz 140.
5. Stevens HP, Kelsell DP, Bryant SP, Bishop DT, Spurr NK, Weissenbach J, *et al*. Linkage of an American pedigree with Palmoplantar keratoderma and malignancy. (Palmoplantar ectodermal dysplasia Type III) to 17q24: Literary survey and proposed updated classification of Palmoplantar keratodermas. Arch Dermatol 1996;132:640-51.

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