

Punctate lesions on palmar creases: An enigma decoded

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Sir,

A 33-year-old male presented with complaints of lesions on the bilateral palmar creases. The lesions had been present for one year and were otherwise asymptomatic. There was no familial history of similar lesions nor a history of lesions elsewhere in the body. On cutaneous examination, numerous, tiny, hyperkeratotic, skin colored, 2–4 mm pits were found on the palmar creases of both hands. The lesions had a predilection for the transpalmar crease and the proximal interphalangeal joint crease of both hands (Fig. 1a). He was in good condition and had no other skin lesions. On dermoscopy, there was a central crust in all lesions on the palmar creases (Fig. 1b).

The results of a complete blood cell count and blood chemistry studies were normal. The above findings were consistent with keratosis punctata of the palmar creases (KPPC).

A microscopic examination of the punctate keratosis of the palm revealed orthokeratotic hyperkeratosis, hypergranulosis, and acanthosis. Hyperkeratosis forms a conical horn overlying a depression in the epidermis. No abnormalities were observed in the dermis. The patient was treated with retinoic acid and local keratolytics, which temporarily improved the condition.

KPPC is a hyperkeratotic benign dermatosis primarily found among people of African descent. They have hyperkeratotic plugs, which break off, leaving characteristic pits. The lesions begin in adolescence or early adulthood [1].

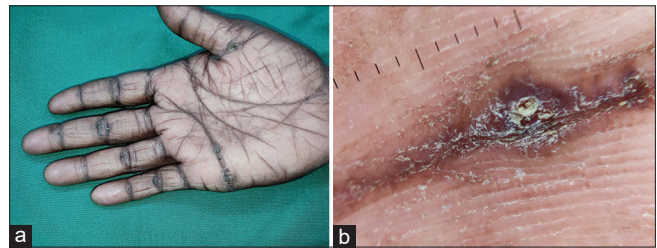


Figure 1: (a) Multiple tiny hyperkeratotic lesions on the palmar surface with a predilection on the creases. (b) Dermoscopy showing the prominent central crusting.

The cause of KPPC remains unknown. Several etiologic theories have been proposed. Although few cases have been reported with a history of arsenic exposure and latent syphilis, many others seem to be due to an abnormal hyperproliferative localized response in predisposed persons possibly induced by trauma. The relationship between the keratotic plug and the acrosyringium has been found in some cases. Yet, in our patient, the acrosyringium was normal. Additionally, KPPC has been reported to occur in association with Dupuytren's contractures, pterygium inversum unguis, dermatitis herpetiformis, psoriasis, and ichthyosis vulgaris [2].

This condition has to be differentiated from keratosis punctata palmoplantaris (KPPP), a rare condition with diffuse pitting of the palmoplantar surfaces, as opposed to its occurrence limited only to the palmar creases [3]. KPPC is a benign process while KPPP carries the associated risk of colorectal malignancy. Hence, it is very important to evaluate the patient and exclude the differentials.

Our case showed characteristic hyperkeratotic pits confined only to the palmar creases. In addition, the other differentials include basal cell nevus syndrome,

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arsenic exposure, palmoplantar porokeratosis, latent syphilis, verrucae vulgaris focal acral hyperkeratosis, and acrokeratoelastoidosis. Treatment with topical retinoids and emollients has been documented [4]. Surgical treatment has also been used for severe and localized disease.

Consent

The examination of the patient was conducted according to the principles of the Declaration of Helsinki.

The authors certify that they have obtained all appropriate patient consent forms, in which the patients gave their consent for images and other clinical information to be included in the journal. The patients understand that their names and initials will not be published and due effort will be made to conceal their identity, but that anonymity cannot be guaranteed.

REFERENCES

1. Kladney M, Johnson S. Keratosis punctata of the palmar creases. *J Gen Intern Med.* 2018;33:1582.
2. Mo HJ, Kim TY, Lee JY, Park CJ. A case of keratosis punctata of the palmar creases. *Ann Dermatol.* 2002;14:114-6.
3. Bonnez AK, Willeford W. Keratosis punctata of the palmar creases in a 68-year-old African-American man. *BMJ Case Rep.* 2016;2016:bcr2016216050.
4. Rustad OJ, Vance JC. Punctate keratoses of the palms and soles and keratotic pits of the palmar creases. *J Am Acad Dermatol.* 1990;22:468-76.

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