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Original article

Buschke-Fischer-Brauer Keratosis Punctata of the Palmar Creases in A 45-Year-Old Libyan Female: A Case Report

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Abstract
Keratosis punctata of the palmar creases (KPPC) is a benign skin condition on the palms that manifests as small, thickened spots in the lines of the palms. We report a 45-year-old Libyan woman whose lesions began at age 12, with a positive family history and a 20-year history of treatment for presumed viral warts and other differential diagnoses. Early recognition of KPPC's characteristic features can prevent unnecessary destructive treatments.
Keywords. *Keratosis Punctata, Palmar Creases, Punctate Keratoderma.*

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Introduction

Buschke–Fischer–Brauer keratosis punctata type 1, also known as keratosis punctata of the palmar creases (KPPC), presents as 1–4 mm hyperkeratotic pits strictly confined to palmar and digital crease lines [1, 2]. Lesions usually appear in adolescence or early adulthood [1, 3]. "Although many cases are sporadic, familial clusters have been documented in North Africa and the Mediterranean [2, 4]. A Tunisian series of 18 families supports an autosomal-dominant inheritance with variable penetrance [4, 5]. Genetic analyses implicate mutations in AAGAB and COL14A1, genes involved in epidermal proliferation and keratinization [6, 7]. KPPC is often misdiagnosed as verruca vulgaris or porokeratosis, leading to repeated cryotherapy or excision without durable benefit [3,8]. Recognition of KPPC's clinical morphology, dermoscopic (central keratotic plug without hemorrhagic dots), and histopathologic findings is essential to avoid unnecessary interventions [9,10].

Case Presentation

A 45-year-old Libyan woman was referred from the obstetrics and gynecology clinic following routine investigations. Viral screening, including HIV serologies and VDRL testing, as well as complete blood count and hepatic and renal panels, were all within normal limits. The patient reported the onset of asymptomatic skin-colored to slightly hyperpigmented depressions on the palms at the age of 12. These lesions, measuring approximately 1–3 mm in diameter, were confined to the transverse and digital palmar creases [Fig. 1, 2].

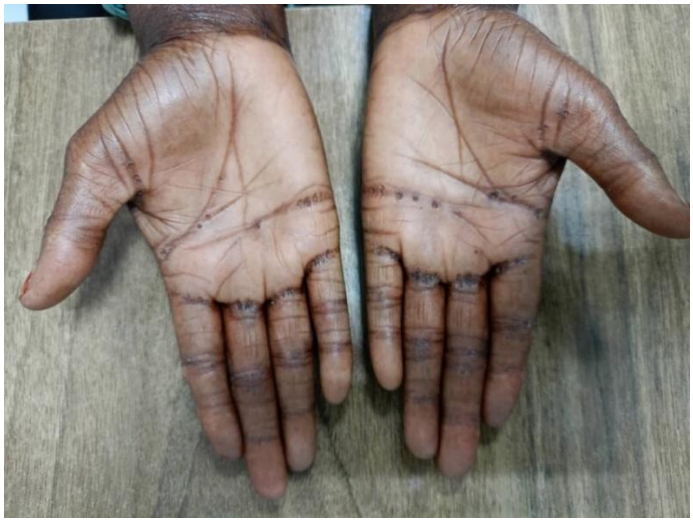

Figure 1. Multiple skin-colored, hyperkeratotic pits confined to the transverse palmar creases.

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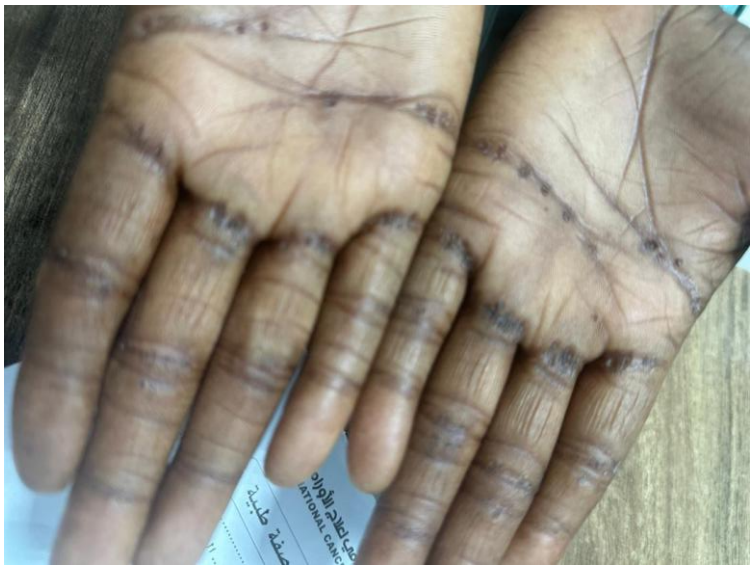

Figure 2. Close-up of the proximal interphalangeal joint creases on both hands, with hyperkeratotic pits.

Over the past 20 years, she underwent multiple sessions of cryotherapy under the clinical impression of viral warts, with only transient improvement and frequent recurrences. Her maternal first cousin had similar lesions since adolescence. Clinical examination revealed numerous skin-colored, 2–3 mm hyperkeratotic pits localized to the palmar creases. The lesions showed a predilection for the transverse palmar crease and the proximal interphalangeal joint creases of both hands [Fig. 3].

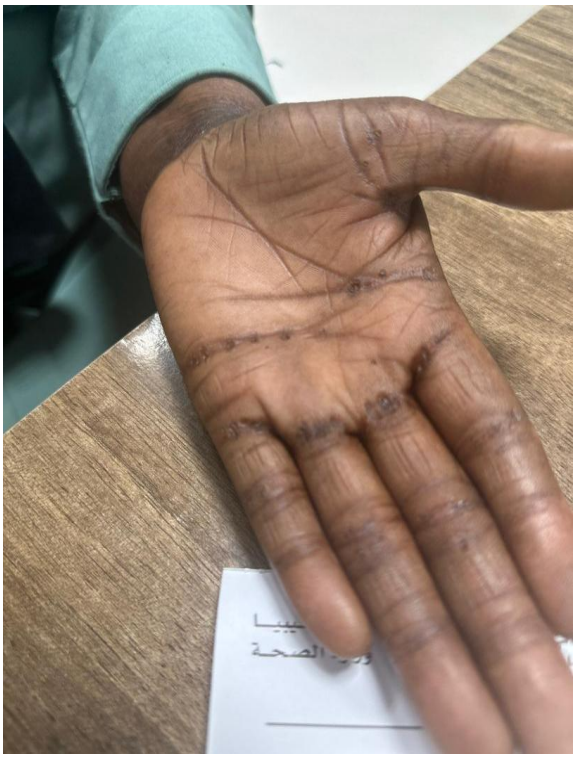

Figure 3: left palm demonstrating similar 1–3 mm punctate depressions along the digital creases.

The lesions were non-tender, discrete, and confined to the palmar creases; they did not bleed upon paring. There was no involvement of the plantar surfaces, nail units, or dorsal aspects of the hands. Dermoscopy revealed central keratotic plugs within shallow epidermal depressions, devoid of vascular puncta or hemorrhagic inclusions [Fig. 4]. Based on clinical and dermoscopic findings, a diagnosis of keratosis punctata of the palmar creases (KPPC) was considered. The patient was initiated on a regimen consisting of 6% salicylic acid ointment applied under occlusion, accompanied by gentle manual paring of the superficial plugs. Additionally, a topical retinoid was introduced.

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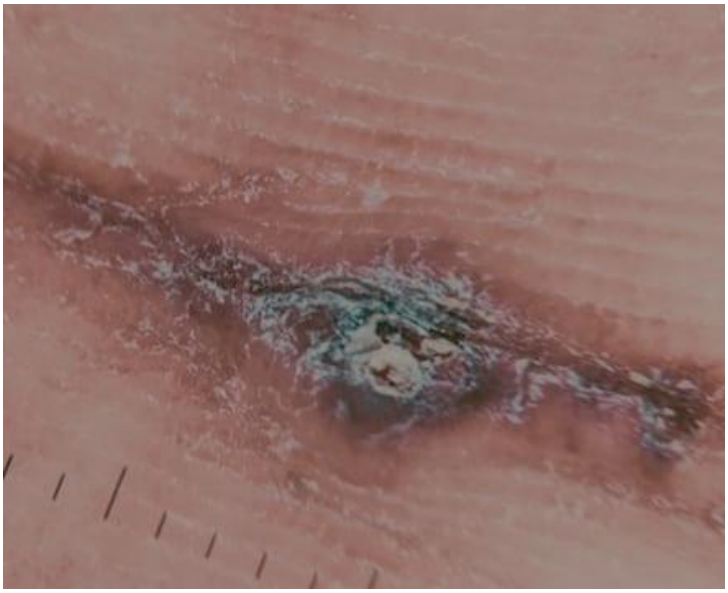

Figure 4. Dermoscopic view (×10 magnification) revealing central keratotic plugs within shallow epidermal depressions, without vascular puncta or hemorrhagic inclusions.

Discussion

KPPC is a benign dermatosis that may present sporadically or in familial clusters, particularly in North African and Mediterranean populations [4, 5]. Its hallmark is hyperkeratotic plugging and subsequent pitting confined to palmar creases [1, 2]. Familial cases follow an autosomal dominant pattern linked to AAGAB and COL14A1 mutations [6, 7].

This condition must be distinguished 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 [11]. 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 [6].

Differential diagnoses include basal cell nevus syndrome, latent syphilis, punctate porokeratosis (cornoid lamella), spiny keratoderma (filiform spicules), arsenical keratoses, lichen nitidus, focal acral hyperkeratosis, and acrokeratoelastoidosis. and viral warts, each distinguished by distinct clinical, dermoscopic, and histologic features [3, 10, 13]. Dermoscopically, KPPC lacks vascular puncta and peripheral white rims seen in warts and porokeratosis, respectively [9]. Histopathology confirms the diagnosis by demonstrating compact orthokeratosis overlying an epidermal invagination, without parakeratosis or cornoid lamella [5].

Management is symptomatic. First-line therapies include topical keratolytics (salicylic acid, urea) and emollients; topical retinoids may provide additional benefit in selected cases [8, 12, 13]. Systemic retinoids are reserved for extensive or refractory disease, with monitoring for adverse effects [12,13]. Unlike some keratodermas, KPPC has no association with malignancy, supporting conservative management [6].

Conclusion

Recognition of KPPC's epidemiologic trends, clinical presentation, dermoscopic signature, and histopathologic hallmarks, especially in early-onset and familial cases, enables accurate diagnosis and prevention of unnecessary destructive treatments. Conservative management with keratolytics and emollients remains the mainstay of care.

Conflict of interest. Nil

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