Dermatology Practical & Conceptual

Hereditary Papulotranslucent Acrokeratoderma: How Dermoscopy Can Aid in Diagnosis

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Introduction

Hereditary papulotranslucent acrokeratoderma (HPA) is characterized by the presence of persistent, asymptomatic, yellowish-white translucent papules and plaques on the palms and soles that become more prominent upon exposure to water [1].

Case Presentation

We present the case of an 18-year-old female who sought evaluation at the Dermatology Clinic due to asymptomatic, white, translucent papules on her palms. She observed a noticeable exacerbation of her palmar lesions following showers and physical activity. Our patient declined to undergo a cutaneous biopsy; however, her mother reported similar symptoms and consented to a biopsy, which histologically confirmed the diagnosis of HPA.

Upon dermatological examination, conducted following transient water exposure, approximately 2-mm papules and plaques were found distributed bilaterally on the palms. Over time, these lesions progressed into plaques, exhibiting additional features such as whitish edematous areas, thickening, and excessive wrinkling (Figure 1). The dermoscopic evaluation revealed white papules covered by scales over a reddish background, primarily localized in the skin furrows and present inside an edematous ballooning area (balloon-like; Figure 2). Based on the clinical presentation, which demonstrated asymptomatic papular lesions intensified by exposure to water and the family history, the patient was diagnosed with HPA.

Treatment involved the application of topical exfoliation agents such as topical salicylic acid 5% and retinoic acid ointment once a day, resulting in significant effectiveness.

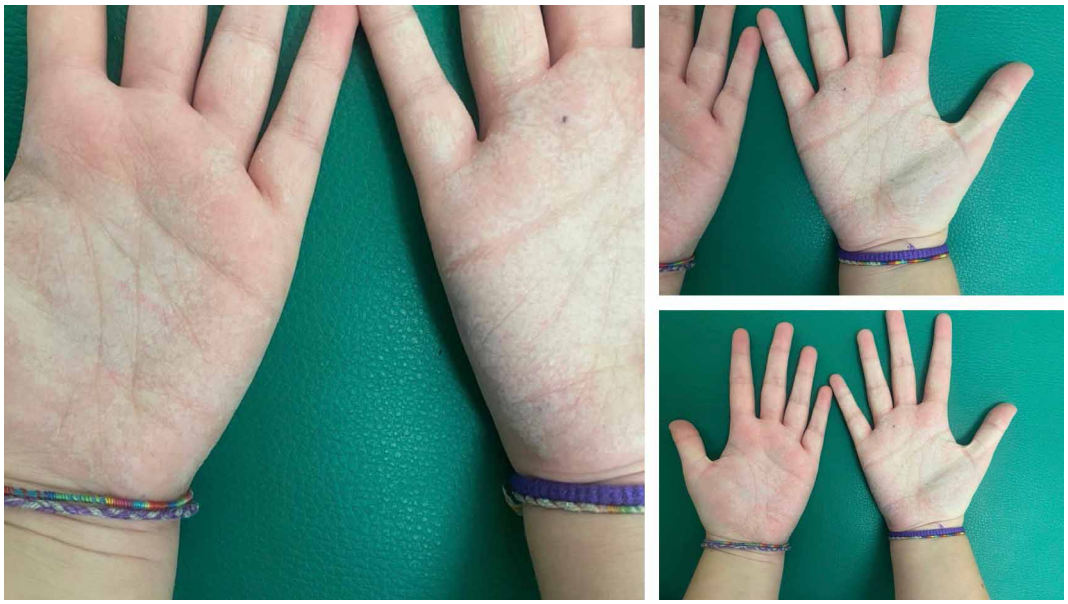

Figure 1. Clinical photographs: papules and plaques distributed bilaterally on the palms, along with whitish edematous areas, thickening, and excessive wrinkling.

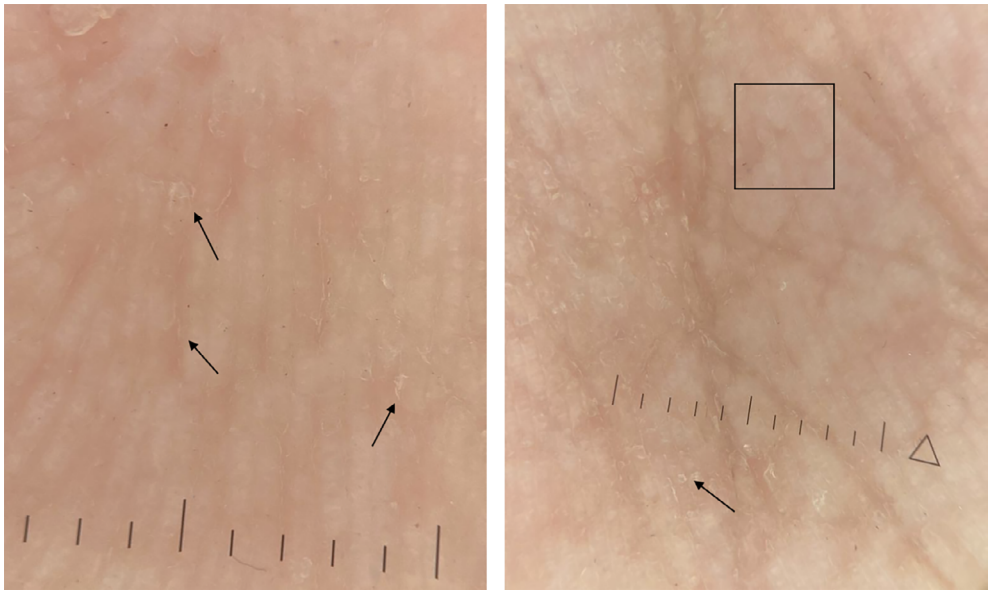

Figure 2. The dermoscopic images depict white papules covered by scales against a reddish background (arrows), in addition to the presence of ballooning (balloon-like) areas (square).

Conclusion

Two types of papulotranslucent acrokeratoderma have been reported in the medical literature: hereditary and transient reactive [1]. HPA is characterized by symmetrical, translucent, yellowish -white papules and plaques found mainly on the palms and soles. This condition of unknown etiology is usually worse when in contact with water and can occasionally extend to the soles. HPA typically affects females during puberty and is inherited in an autosomal dominant pattern [2]. Because the lesions occur primarily on the palms and soles, physical trauma may play a role in initiating this condition [2].

An important condition that needs to be ruled out is aquagenic palmar keratoderma, an acquired condition characterized by burning and edema limited to the hands after brief immersion in water. Dermoscopy of aquagenic palmar keratoderma shows large yellow well-defined globules not affecting dermatoglyphics or simply enlargement of the sweat duct pores when compared with a normal-looking palmar skin area [3]. However, in HPA, as illustrated in our description, it is possible to observe white scales against a reddish

background, primarily concentrated within the skin furrows. The presence of the ballooning (balloon-like) area in dermoscopy is a constant feature in this condition and represents the anatomopathological equivalent of acanthosis. The dermoscopic difference between palmoplantar aquagenic keratoderma and HPA can help distinguish these clinically similar conditions, eliminating the necessity for a skin biopsy, although it remains the gold standard for diagnosis.

Specific treatments for HPA are not usually necessary because the condition is generally asymptomatic. HPA treatment is mainly topical and often involves exfoliation agents, including topical urea, salicylic acid, and ammonium, which can be used combined with oral administration of acitretin [4]. Patients require further follow-up.

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