Yellowish Papules on the Palms After Water Immersion

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A 30-year-old man reporting a 2-month history of asymptomatic, yellowish papules with central punctate depressions on the palms (Figure 1) was referred to our Dermatology Unit. These papules appeared a few minutes after the patient's palms were exposed to water and resolved minutes to hours after drying. Hyperhidrosis, hair and nail disorders, or sole involvement was absent and there was no family history of similar lesions. On examination, well-defined, yellowish globules with an appearance of large solid pavement on the palms were observed under polarized light dermoscopy (Dermlite DL3) (Figure 2). These structures resembled dermatoglyphics and were evident 5 minutes after the patient's palms were immersed in hot water and disappeared without scarring 2 hours later.

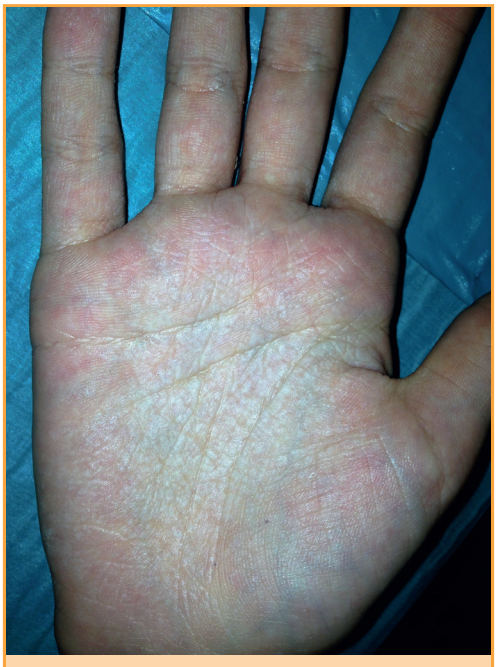

FIGURE 1. Yellowish papules on the palms after immersion in warm water.

FIGURE 2. Dermoscopic image (DermLite II ProHR, 3Gen LLC). Large yellow well-defined globules resembled dermatoglyphics.

Aquagenic syringeal acrokeratoderma (ASA), also called aquagenic palmar keratoderma, is a frequently misdiagnosed noninherited transient acquired keratoderma. Diagnostic criteria for ASA have not yet been proposed, but the "hand-in the bucket sign" (papules appear after immersion of hands into warm or cold water for 3-5 minutes) is considered a pathognomonic sign. Most cases are sporadic and acquired, but familial cases have also

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been reported with a slight female dominance.[1] ASA has been linked to cystic fibrosis (CF) related to a heterozygous mutation in the *CFTR* gene. Family history of CF in our patient was ruled out. Other associations are atopy, palmar hyperhidrosis (50% of cases), and intake of certain drugs, including aspirin and inhibitors of cyclooxygenase.[2] Although pathophysiology remains unclear, it has been hypothesized that enlargement of the sweat duct puncta is caused by abnormal cell membrane channels such as aquaporin 3 or 5 inducing weakness of eccrine duct walls.[3] A 15% to 20% topical aluminium hydroxide is the most frequently prescribed treatment with variable results. The use of botulinum toxin has demonstrated moderate effectiveness when hyperhidrosis causes marked disability.[4]

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