

CASES FOR DIAGNOSIS

Erythematous-violaceous Lesions on the Palms

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Clinical History

The patient was a 6-year-old girl with no past history of interest. She was seen for asymptomatic skin lesions that had appeared 2 weeks earlier on the palms of the hands.

The history revealed that the lesions first appeared 15 days after the start of the summer holidays, coinciding with the beginning of prolonged, daily leisure activities in a family swimming pool.

The girl had not had any previous similar episodes, and the parents did not report any family history of similar disorders.

Physical Examination

These were erythematous-violaceous lesions that were not infiltrated, had a smooth and a very shiny surface, and were situated symmetrically on the palms of both hands, principally on the pulps of the fingers and on the palmar eminences (Figure). The rest of the dermatological examination, including the soles of the feet, was normal.



Figure 1.

What Was the Diagnosis?

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Diagnosis

Pool palms.

Clinical Course

The lesions disappeared spontaneously within a few days of reducing activities in the pool.

Discussion

Pool palms, a disorder also known as juvenile palmar dermatitis of swimming pools, is a rare, benign, self-limiting skin condition that has been reported almost exclusively in children and is related to prolonged, daily activity in swimming pools.¹⁻⁶

This pediatric dermatosis of mechanical origin is related to the frequent and repeated friction of the hands against the hard and rough surfaces of the border of the swimming pool.^{1,2}

It is characterized by shiny and intensely erythematous lesions with a symmetrical distribution on the convex areas of the palms of the hands and pulps of the fingers. The characteristic topography of the lesions is related to the areas of the hands subjected to greatest friction against the border of the swimming pool.

Its presentation in childhood appears to be due to greater skin fragility, and its frequent appearance in the summer period is due to the fact that children have long periods of leisure activities in swimming pools, during which time they frequently grasp the border of the pool with wet hands. Hyperhydration of the corneal layer due to prolonged bathing appears to be the main factor that favors the onset of this disorder.² Although some authors have suggested that certain chemical irritants, such as disinfectants, could also be involved in the onset of the

lesions, this fact appears to be less relevant in view of the absence of lesions in areas not subjected to friction.^{3,5}

As occurs with other dermatoses of mechanical origin, such as sandbox dermatitis or frictional lichenoid dermatosis, the children often have a history of atopic dermatitis or psoriasis.

The main differential diagnosis must be established with hidradenitis, although the lesions in hidradenitis usually have a greater edematous component and are more infiltrated.⁶

The interruption of activities in water has led to disappearance of the lesions within a few days in all reported cases.¹⁻⁶

In conclusion, pool palms is a mechanical dermatosis of the hands, of frictional origin, in which humidity acts as the predisposing factor. The diagnosis is clinical and obvious and does not require additional tests. Treatment is not required in view of its tendency to disappear within a matter of days.

Conflicts of Interest

The authors declare no conflicts of interest.

References

1. Blauvelt A, Duarte AM, Schachner LA. Pool palms. *J Am Acad Dermatol.* 1992;27:111.
2. Lacour JP. Dermatite palmaire juvenile des piscinas. *Ann Dermatol Venereol.* 1995;122:695-6.
3. Sassolas B. La dermatite palmaire juvenile des piscines. *Ann Dermatol Venereol.* 1996;123:519.
4. Wong LC, Rogers M. Pool palms. *Pediatr Dermatol.* 2007; 24:95-6.
5. Mandojana RM. Pool palms. *J Am Acad Dermatol.* 1993; 28:280-1.
6. Azaña Defez JM, Rodríguez Vázquez M. Palmas de piscina. *Piel.* 2008;23:7-8.