Idiopathic Palmoplantar Hidradenitis: Report of Two Cases

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Case 1: An 8-year-old healthy boy presented with foot pain lasting 5 days. He reported having worn tight footwear in the preceding days. Physical examination revealed poorly defined erythematous-edematous plaques on the lateral and plantar surfaces of the feet (Fig. 1).

Case 2: A 10-year-old boy with no medical history presented with foot pain lasting one week. He reported having engaged in intense physical activity in the preceding days. Physical examination revealed well-demarcated erythematous-edematous plaques on the anterior half of the plantar surfaces of the feet (Fig. 2).

With a diagnostic suspicion of idiopathic palmoplantar hidradenitis, both cases were treated with analgesics and rest, resulting in complete resolution within 3 and 4 weeks, respectively. Neither patient experienced recurrences during the 5-year follow-up.

Idiopathic palmoplantar hidradenitis (IPPH) is a rare neutrophilic dermatosis first described by Stahr et al. in 1994. It affects the soles –and less frequently, the palms– of otherwise healthy patients aged 1 to 15 years without a history of systemic medication use. It is a benign, self-limited condition but can be recurrent in up to 50% of cases, which is why it is also called recurrent palmoplantar hidradenitis of childhood.[1-5]

Although its pathogenesis remains unclear, it occurs more frequently during the warmer months. Researchers theorize that immature sweat glands in pediatric patients are more susceptible to mechanical or thermal trauma, and their rupture could lead to the release of glandular secretion into the surrounding tissue, triggering an inflammatory process with neutrophil chemotaxis.[1-5] Other proposed triggers include recent vaccination, hypersensitivity reactions, pseudomonas infections, etc.[5]

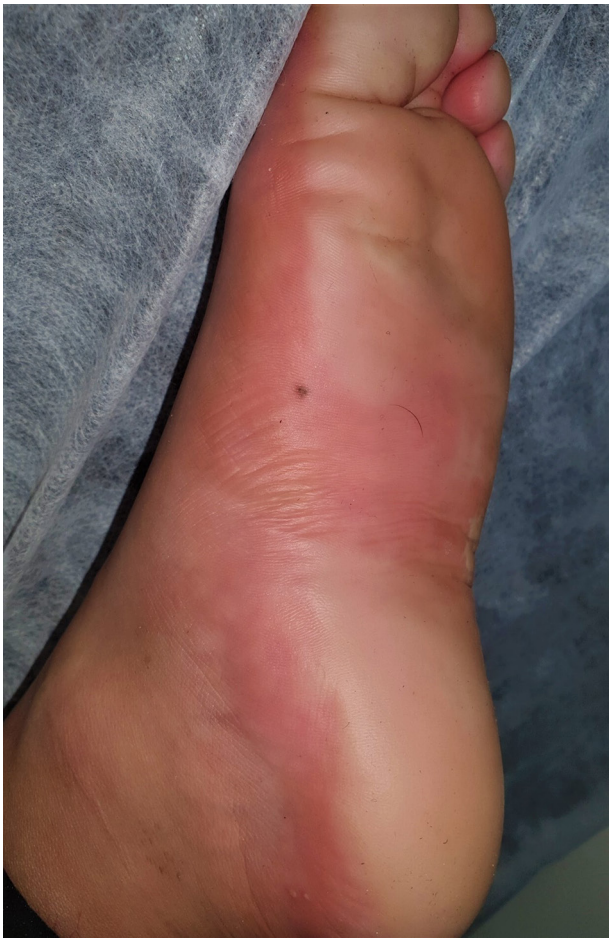

Figure 1. Plantar medial region and lateral aspect of the left foot with erythematous edematous plaques of poorly defined limits.

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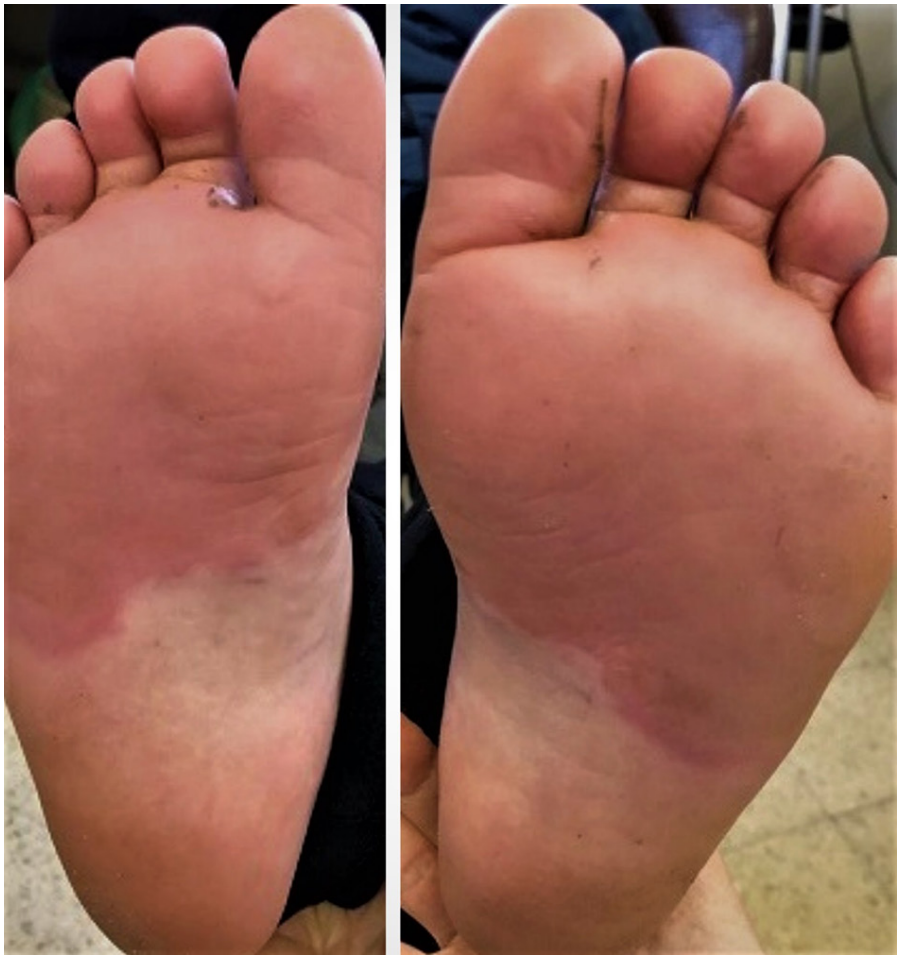

Figure 2. Well-demarcated erythematous edematous plaques in the plantar region of both forefoot.

Clinically, it presents as painful with papules, plaques, or bilateral or unilateral nodules of abrupt onset, located on the soles of the feet and/or palms of the hands, with no other associated signs or symptoms.[1-5]

With rest and analgesics, it is usually self-resolving after 3-4 weeks, and no further studies are required to reach a diagnosis. However, close follow-up is vital to detect possible recurrences.[1-5] In cases of atypical clinical presentations, diagnostic uncertainty, or poor response to treatment, a skin biopsy is indicated to confirm the diagnosis.

Histological examination reveals the presence of a neutrophilic inflammatory infiltrate around the eccrine glands, both in the coil and the excretory duct, along with neutrophilic abscesses in the glandular coil. Unlike neutrophilic eccrine hidradenitis, there is no evidence of squamous syringometaplasia.[1-5]

Among the key differential diagnoses are erythema multiforme, vasculitis, infectious cellulitis, and erythema nodosum. Histological analysis helps differentiate these conditions: erythema multiforme shows a lichenoid cytotoxic pattern, vasculitis exhibits endothelial cell necrosis, fibrinoid degeneration, and leukocytoclasia, while erythema nodosum displays septal panniculitis without vasculitis-findings absent in IPPH.[1-5]

We present two new cases of this rare condition to highlight its characteristic clinical manifestations and avoid the use of invasive diagnostic procedures, which increase morbidity, given that this is a benign, self-limiting condition affecting healthy children.[1-5] Notably, unlike what has been reported in the literature, none of our patients have experienced recurrences until now.

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