Dermatology Practical & Conceptual

Purpuric Plaques on Extremities - a Unique Presentation of Mycosis Fungoides Palmaris et Plantaris

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Case Presentation

A 61-year-old female presented with a 3-year history of a rash with purpuric involvement in the plantar and palmar areas without any involvement of the dorsum of the foot or hands (Figure 1). Medical history was significant for Crohn disease and breast cancer. Patient was not taking anti-coagulants. Previous treatments included topical steroids with little improvement. She denied constitutional symptoms. Dermoscopy revealed multiple red brown streaks with parallel furrow pattern as well as multiple linear vessels, admixed with white lines at the periungual area (Figure 1). Biopsies of the right palm and toe revealed an epidermotropic T-cell lymphoma most consistent with CD8+ mycosis fungoides palmaris et plantaris (MFPP) (Figure 1). Extravasated erythrocytes were found in the superficial dermis, epidermis and cornified layer.

Teaching Point

For MFPP, CD4+ is usually predominant and CD8+ is rare [1,2]. Other variants of cutaneous T-cell lymphoma (CTCL) have been reported to have CD8 involvement, including pagetoid reticulosis (PR), Ketron-Goodman disease, Hypopigmented mycosis fungoides (MF), and Woringer-Kolopp disease [2].

Histology proved to be a major distinguishing factor for this patient; MFPP is known for its atypical dermal infiltrate [1,2]. Atypical cells are rarely seen within the dermis in PR, but were present in this patient in a band-like distribution in the superficial dermis in this patient [2]. Topical steroids have been proven to be effective in early stages of MFPP and radiation therapy has been proven to be successful in other cases of refractory MFPP [1]. Although slightly different than the traditional CD4+ MFPP described in these cases, this patient cleared her lesions with four sittings of low dose radiation.

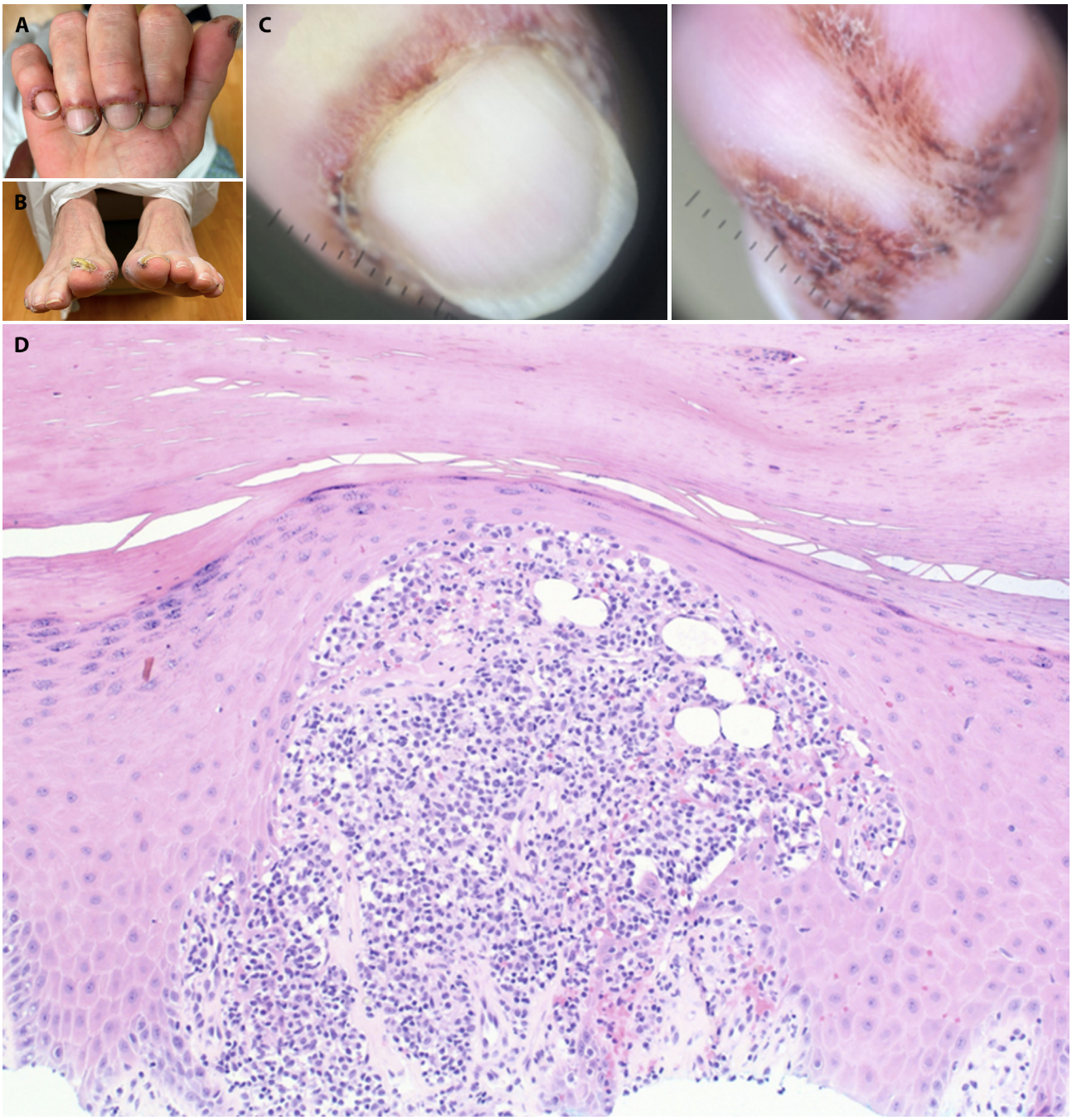

Figure 1. Clinical presentation, dermoscopy and histology. (A) Well circumscribed, scaly, mildly eroded purpuric plaques were noted on her distal fingertips and lateral fingers. There was subungual erythema and swelling with some peeling of the skin.(B) Well circumscribed, scaly, mildly eroded purpuric plaques were noted on her lateral toes and tips of her toes. On the right medial toe, there was a 2 cm red-brown, hyperkeratotic plaque with scale. (C) Involving the proximal nailfold, cuticle and lateral nailfolds, there are multiple red brown streaks with parallel furrow pattern as well as multiple ill-defined linear vessels, admixed with white lines at the periungual area.(D) Shave biopsy shows an atypical lymphoid infiltrate filling the papillary dermis and extend into the basilar epidermis as individual cells and small collections (original magnification X100).

References

1. Nakai N, Hagura A, Yamazato S, Katoh N. Mycosis fungoides palmaris et plantaris successfully treated with radiotherapy: case report and mini-review of the published work. *J Dermatol*. 2014;41(1):63-67. DOI: 10.1111/1346-8138.12308. PMID: 24438146.
2. McNiff JM, Schechner JS, Crotty PL, Glusac EJ. Mycosis fungoides palmaris et plantaris or acral pagetoid reticulosis? *Am J Dermatopathol*. 1998;20(3):271-275. DOI: 10.1097/00000372-199806000-00009. PMID: 9650701.