

## An Atypical Case of Pustular Psoriasis Presenting With Severe Subungual Abscesses Involving All Fingers

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### Introduction

Pustular psoriasis (PP) is a group of inflammatory skin conditions characterized by infiltration of neutrophil granulocytes in the epidermis, with clinically visible sterile pustules. Acrodermatitis continua of Hallopeau (ACH), which is now considered to be a variant of PP, is characterized by primary and persistent (>3 months) pustules affecting the nail bed/matrix [1]. Here we report a patient with PP manifesting itself with acute subungual abscesses involving all fingers.

### Case Presentation

A 51-year-old woman presented with rapidly developed yellow discoloration of fingernails, accompanied by severe throbbing pain. Dermatological examination revealed subungual abscesses involving all fingers, and periungual erythematous, edematous, and scaly changes extending to the proximal interphalangeal joint (Figure 1, A and B). Some fingernails showed distal onycholysis and oil spots, while distal subungual hyperkeratosis and thickening were evident on all toenails. Aerobic bacterial culture of the purulent specimen

yielded *Proteus* spp, which was sensitive to almost all conventional antibiotics. A 1-week course of amoxicillin-clavulanate 2 g/day and fusidic acid ointment was unsuccessful. Proximal shedding of nails started in some of the fingers (Figure 2A), while erythematous patches with superimposed grouped pustules developed on the legs (Figure 2B). Skin biopsy specimens showed parakeratosis, elongation of rete ridges, neutrophilic exocytosis, and intraepidermal pustules (Figure 3). Oral methotrexate 15 mg/week was started. In 2 weeks, a dramatic improvement was noted (Figure 4A). At the eighth week of treatment, periungual inflammation subsided and all fingernails started to regrow (Figure 4B).

### Conclusions

In ACH, pustular eruptions tend to remain restricted to 1 or 2 digits, most commonly the thumb, for months or years, and may extend slowly to the dorsum of hands and feet. There are very limited reports of ACH involving more than 2 digits. Longstanding lesions may lead to anonychia and destruction of the underlying bones [1,2].

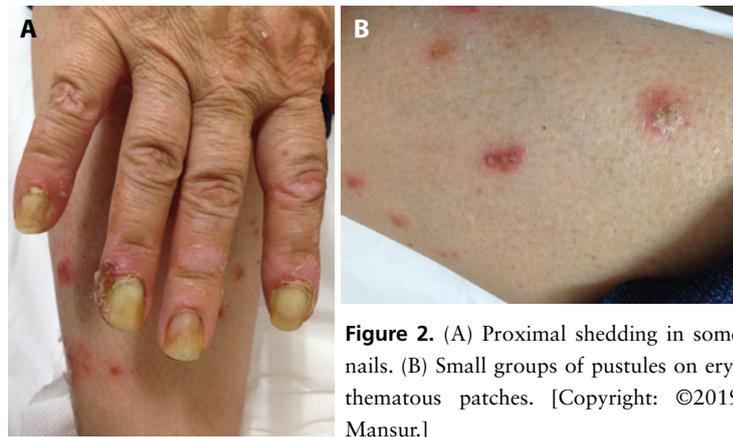


**Figure 1.** (A,B) Subungual abscesses on fingernails, with periungual erythema and scaling. [Copyright: ©2019 Mansur.]

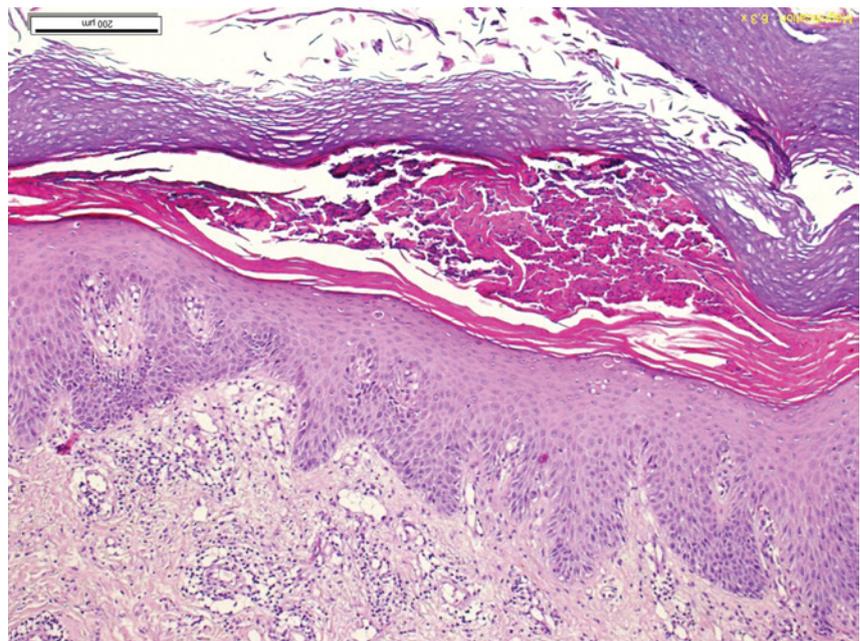
An acute, severe course involving almost all fingernails and causing rapid onychomadesis is unusual for ACH, and in this context, infectious paronychia may be considered. However, bacterial abscesses developing simultaneously beneath several nails, resistant to oral and topical antibiotic therapy, should be extremely rare. Therefore, we think that in our patient the culture result merely represents a contamination or secondary infection.

Very rarely ACH may evolve into generalized PP in 1-2 years, mostly in elderly patients [2]. In contrast, the presented patient showed a rapid development of pustular lesions in relatively remote areas. The widespread and intense involvement of nails in addition to rapid progression and generalization does not support considering this case a typical example of ACH.

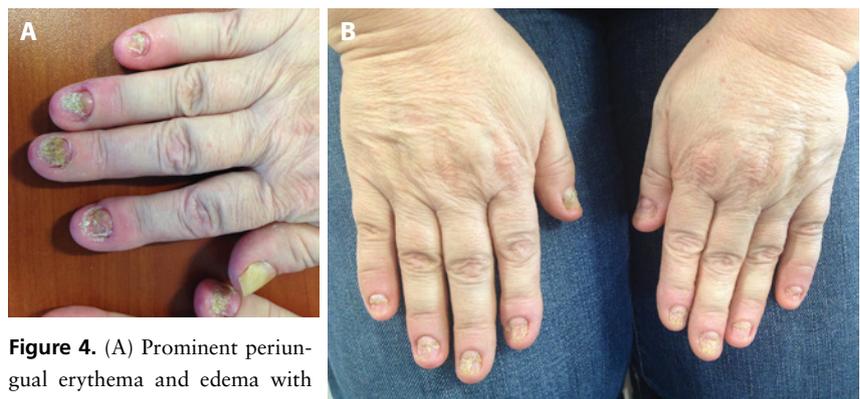
The phenotypes of PP are not well defined, and attempts to constitute a better classification of the subgroups are ongoing [1]. The number of digits



**Figure 2.** (A) Proximal shedding in some nails. (B) Small groups of pustules on erythematous patches. [Copyright: ©2019 Mansur.]



**Figure 3.** Histopathological features of the lesions (hematoxylin and eosin, ×100). [Copyright: ©2019 Mansur.]



**Figure 4.** (A) Prominent periungual erythema and edema with total loss of fingernails. (B) Regrowth of nails after total shedding. [Copyright: ©2019 Mansur.]

involved and the rate of progression that would ensure a precise diagnosis of ACH is not definite yet. Types of PP may not always be clearly sepa-

rated from each other, and at least some patients may represent an overlapping. Accurate diagnosis and treatment is imperative for PP to avoid its detri-

mental effects. In cases of subungual abscesses resistant to antibiotic therapy, PP involving nail apparatus should be considered.

### **Acknowledgment**

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