Dermatology Practical & Conceptual

Dermoscopy Reveals Pseudopitting of the Nail in Psoriasis

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Introduction

Nail involvement in psoriasis is very common, with a reported lifetime incidence of up to 90% in all psoriatic [1]. Despite their high frequencies, nail alterations are usually neglected in psoriasis [2]. However, findings of nail psoriasis (NP) are usually specific, which allows a clinical diagnosis of psoriasis even if cutaneous lesions are absent [3]. Di Chiacchio et al described a unique manifestation of NP, which they called pseudopitting. They presented a patient with psoriasis, in whom pits were seen only above salmon patches (SP) [2]. Herein, cases of 3 patients with dermoscopic images of pseudopitting and a description of other features related to pseudopitting are presented.

Case Presentation

Some descriptive epidemiologic features were observed among the patients, including male predominance and a high frequency of accompanying arthritis (Table 1). One patient (case #2), without arthritis, had a shorter duration of psoriasis. The psoriasis area and severity index scores of the patients were >10, except for one patient (case #4). Three patients had severe NP with a nail psoriasis severity index (NAPSI) score >50, whereas one patient had moderate NP with an NAPSI score >25. Figures 1 and 2 show dermoscopic images of the patients.

Conclusions

Nail bed-related findings are the characterizing features of NP because a significant component of the pathogenesis of psoriasis is driven through inflammatory angiogenesis [4]. Cases presented here share a similar clinical appearance, in which various nail bed-related findings are accompanied by pseudopitting or pitting. The image of case #4 does not demonstrate pseudopitting but gives an idea about the evolution of pseudopitting. Several pits with salmon-colored centers are located on the distal nail, which implies that these pits and SP represent different stages of a spectrum of the same pathological process, having different presentations based on their location (Figure 2B). SP is the counterpart of a psoriatic plaque in the nail bed, which results from focal nail bed parakeratosis. SP is a pathognomonic sign, whereas

Table 1. Demographic and clinical profile of the patients

Characteristics	Case #1	Case #2	Case #3	Case #4
Age (years)	37	61	25	36
Sex	M	M	M	F
Family history	P	A	A	P
Psoriasis duration (years)	20	1	20	30
Accompanying arthritis	P	A	P	P
Previous treatments	Mtx, PhT	PhT	Mtx, PhT	Mtx, biologics
PASI	14.7	11.6	15	5.1
Total number of affected nails (F/T)[a]	8/6	10/6	8/5	10/4
NAPSI	51	66	35	63
Nail findings	DO, SP, RSL, LE, pitting	DO, DHC, DBC, LE, SP, MWD, pitting	SH, SP, nail bed red spots, DBC, LE, pitting	DO, SP, SH, LE, DBC, nail bed red spots, pitting
Current treatment	Mtx	PhT	Mtx	Biologic

A = absent; DBC = dilated nail bed capillaries; DHC = dilated hyponychial capillaries; DO = distal onycholysis; [a]F/T =fingernail/toenail; LE = longitudinal erythema of the nail bed; Mtx = methotrexate; MWD =multiple white dots; PASI = Psoriasis Area and Severity Index; PhT = Phototherapy; NAPSI = Nail Psoriasis Severity Index; RSL = red spot lunula; SH = splinter hemorrhages; SP = salmon patches.

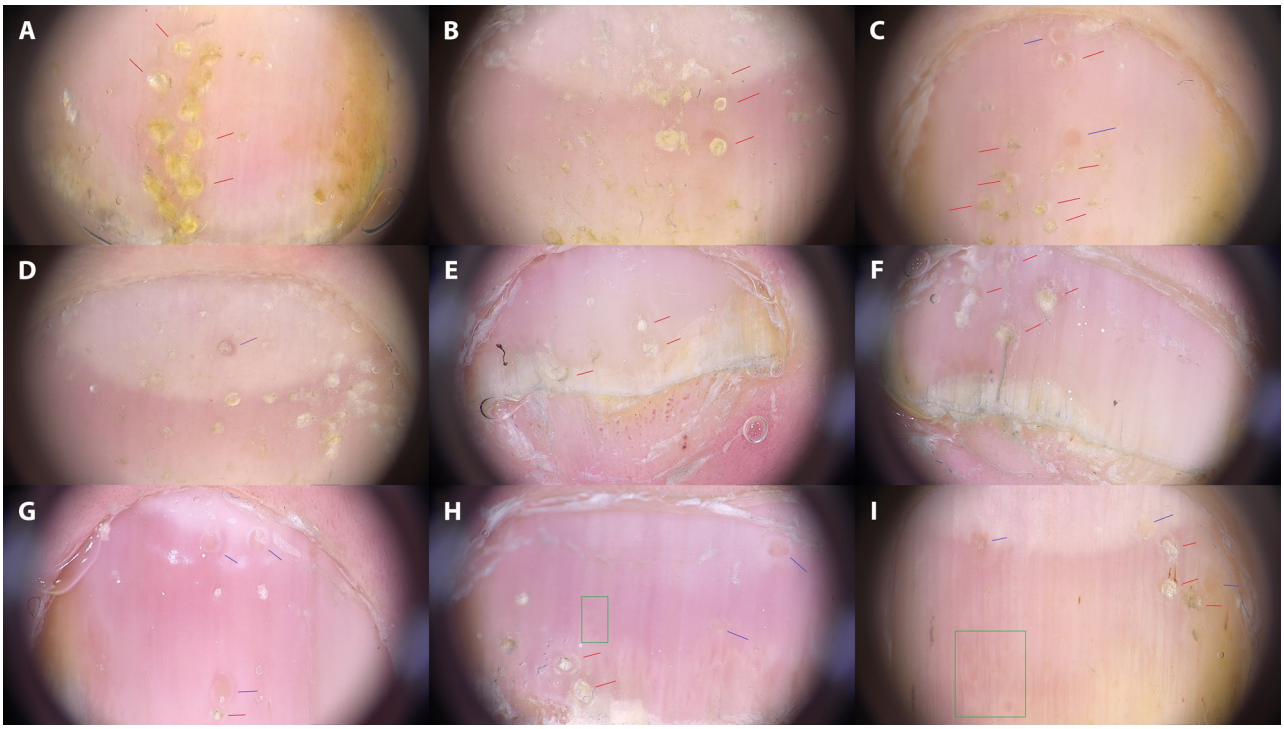

Figure 1. (A-I) Pits over SP (red lines), note peripheral white halos around some of the pits (A,C,E,F,H,I), SP with peripheral white halo (blue lines); nail bed red spots (green rectangles). (D) A pit over a RSL (purple line). (G): Note three zones of colors in SP (orange in the center, white in the middle and red in the outermost) (A-D, case #1; E-H, case #2, I, case #3).

pitting, which occurs due to the foci of parakeratosis in the nail matrix, is a very characteristic but not a specific sign of NP [1].

Di Chiacchio et al demonstrated full-thickness parakeratosis of the nail plate over the nail bed in their patient. They suggested that pseudopitting shares similar pathogenesis with pitting except for the defect of the location, which causes nail plate depression [2]. Not only the underlying causes but also the implications of pseudopitting are being questioned. Does the presence of pseudopitting signify other

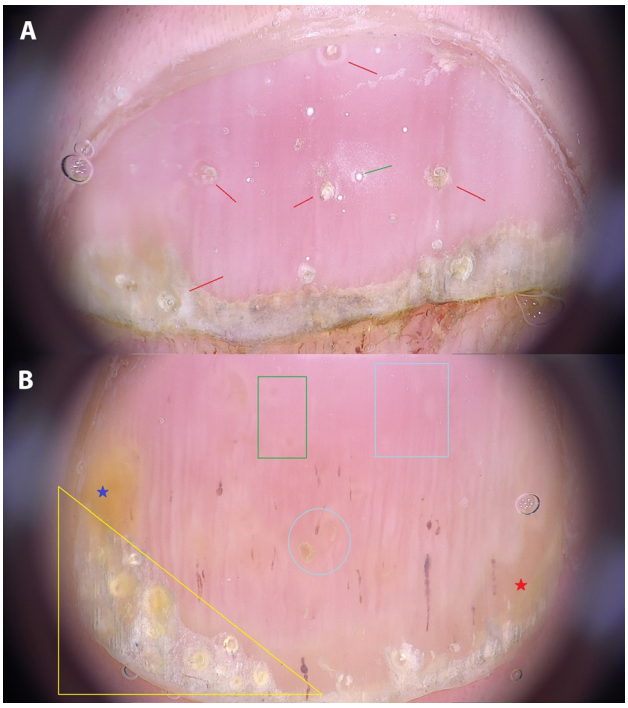

Figure 2. (A) Case #2: pits over SP (red lines); a white dot with a peripheral white halo (green line); (B) Case#4: multiple pits on onycholytic nail plate, note central salmon color and surrounding white rims (yellow triangle); SP (blue line); a wide SP on the lateral region of the nail plate (blue star); DO with peripheral erythema (red star); nail bed red spots with peripheral white halos (green rectangle); white patchy areas without central erythema (turquoise rectangle), note the lesions, which embody the characteristics of both a pit and a SP (turquoise circle).

meanings, such as having a more severe NP? Why did the patient of Di Chiacchio et al only manifest with pits over SP and not elsewhere on the nail plate? Why patients do present herein manifest with both pitting and pseudopitting? Do we fail to notice pseudopitting in everyday practice? These questions are unanswered yet; however, pseudopitting is obviously a pathognomonic finding of NP, which we should look for.

References

1. Haneke E. Nail psoriasis: clinical features, pathogenesis, differential diagnoses, and management. *Psoriasis (Auckl)*. 2017;7:51-63. DOI: 10.2147/PTT.S126281. PMID: 29387608. PMCID: PMC5774607.
2. Di Chiacchio N, André J, Haneke E, Di Chiacchio NG, Fonseca Noriega L, Ocampo-Garza J. Pseudo-pitting of the nail in psoriasis. *J Eur Acad Dermatol Venereol*. 2017;31(7):e347-e348. DOI: 10.1111/jdv.14141. Epub 2017 Mar 1. PMID: 28129473.
3. Yorulmaz A. Dermoscopy: the ultimate tool for diagnosis of nail psoriasis? A review of the diagnostic utility of dermoscopy in nail psoriasis. *Acta Dermatovenerol Alp Pannonica Adriat*. 2023;32(1):11-15. PMID: 36945761.
4. Yorulmaz A, Aksoy GG. Dermoscopic Features of Nail Psoriasis: Revisited. *Skin Appendage Disord*. 2022;8(5):389-398. DOI: 10.1159/000524109. PMID: 36161089. PMCID: PMC9485950.