

Transient Acantholytic Dermatitis: New Dermatoscopic Features

Ayşe T Mansur, Cuyan Demirkesen¹

From the Department of Dermatology, Academic Hospital, ¹Department of Pathology, Acibadem Mehmet Ali Aydınlar University School of Medicine, Istanbul, Turkey.

E-mail: tulinmansur@gmail.com

Indian J Dermatol 2021;66(6):683-5

Dear Sir,

Transient acantholytic dermatosis (TAD) is a nonfamilial and nonimmunological acantholytic disorder.^[1] Here, we present a case of TAD manifesting dermatoscopic findings not described before.

A 63-year-old male presented with a 3-month history of severely itchy skin lesions. Dermatologic examination revealed excoriated erythematous papules of 1-3 mm, with tiny hemorrhagic crusts, localized mainly on the upper back and chest [Figure 1a and b]. Dermatoscopy (DermLite DL IV, polarized, ×10) showed peripheral grayish-brown crusts, forming full or partial round, ovoid, or triangular-like borders. At some lesions, white scales were present over these crusts, which sometimes extended to or covered the central areas. There were whitish-pink or red homogenous areas surrounding the crusts, with a few dotted vessels [Figure 2a-f].

Two punch biopsies were performed. Both of them showed parakeratosis, dyskeratotic cells, small foci of acantholytic clefts, and mild perivascular inflammation in the upper dermis. One biopsy also showed a parakeratotic column overlying a suprabasal acantholytic cleft and spongiosis [Figure 3a and b].

Discussion

TAD is characterized histologically by suprabasal acantholysis, with or without dyskeratosis. Eczematous features and lymphohistiocytic perivascular infiltrate can also be observed. Four classic histopathologic patterns are recognized: darier like, pemphigus vulgaris like, Hailey-Hailey like, and spongiotic.^[1]

Till date, only a few reports have been published on the dermatoscopic features of TAD^[2-7] [Table 1].

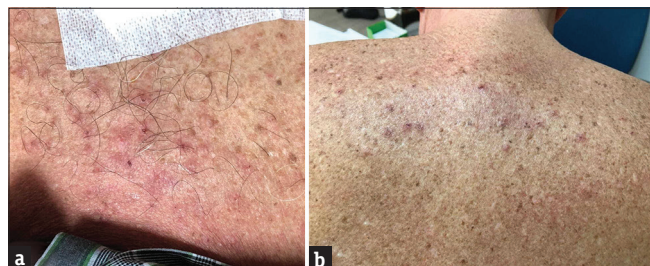


Figure 1: (a and b) Erythematous papules with small central crusts

A case reported by Sadayasu *et al.*^[2] showed irregular yellow to brown crypts edged with white band-like areas, surrounded by an erythematous halo, and whitish scaly areas in the brown crypts. The authors suggested that the star-like pattern corresponds to parakeratosis, while the white bands correspond to ortho-hyperkeratosis.

In another case report, while Darier-like subtype manifested a central star-like or roundish-oval brownish area surrounded by a whitish halo, spongiotic subtype displayed whitish scales over a reddish-yellowish background.^[3] However, as different subtypes of TAD may be seen in combination in a given lesion,^[1] the correlation of dermatoscopic pattern with histopathologic subtype may not be strict.

Our first biopsy was consistent with Hailey-Hailey, and the second with Darier subtype. Though our patient displayed roundish-oval shapes, there was no star-like structure. We also saw white scales on brownish-pinkish

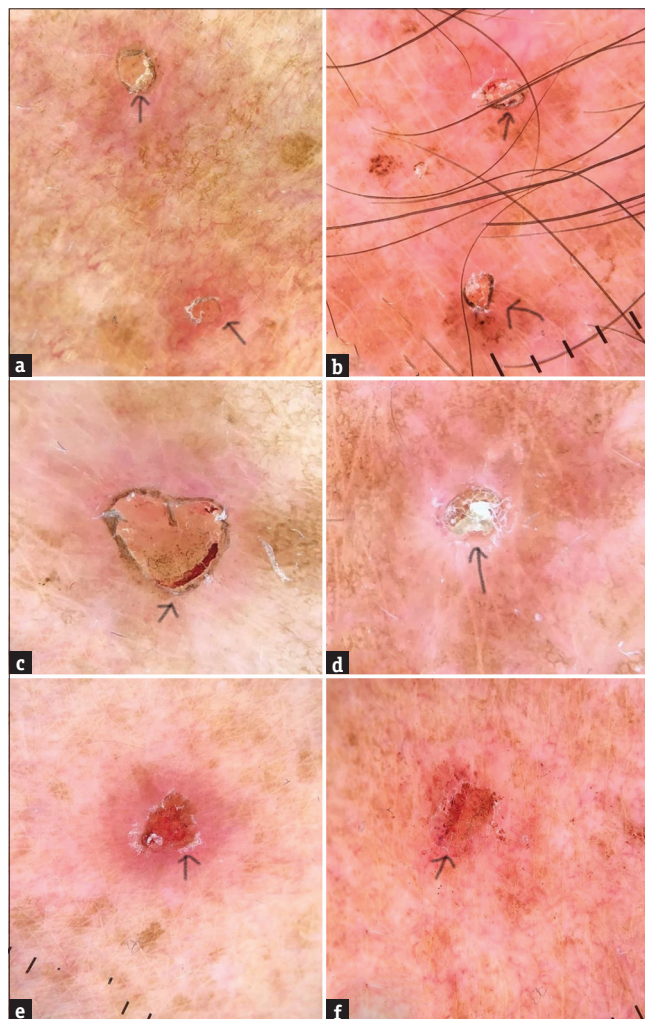


Figure 2: (a and b) Grayish-brown crusts forming full or partial circles with superimposed white scales. (c) Peripheral crust presenting a triangular shape. (d) White scales occluding the circle. (e and f) Whitish-pink/red homogenous areas surrounding crusts, with a few dotted vessels

Table 1: Reports on the dermatoscopic features of TAD

Reference	Number of cases	Dermatoscopic Features	Histopathologic variant
Giacomet <i>et al.</i> ^[6]	1	Micro-fissures and scales forming tan/brown star-like shape Fine hairpin vessels with white halos on a pinkish background	Darier like
Sadayasu <i>et al.</i> ^[2]	1	Irregular yellow-brown crypts edged with white band-like areas	Darier like
Erichetti <i>et al.</i> ^[3]	7	Central branched, polygonal, or round-brownish areas surrounded by whitish halo Whitish scales over a reddish-yellow background Subtle dotted and telangiectatic vessels	3 Darier like 4 Spongiotic
Fink <i>et al.</i> ^[5]	2	Central yellowish-brown erosion with a stellar, polygonal, or round shape, surrounded by whitish-pink area with dotted linear vessels	Darier like
de Abreu <i>et al.</i> ^[4]	1	Early lesion: pinkish-white background, central glomerular, peripheral linear, and hairpin vessels Late lesion: central yellowish to brown star-like pattern, white radiating halo	Darier-like
Lacarrubba <i>et al.</i> ^[7]	1	Polygonal, star-like yellowish/brownish areas, surrounded by white thin halos	Darier like

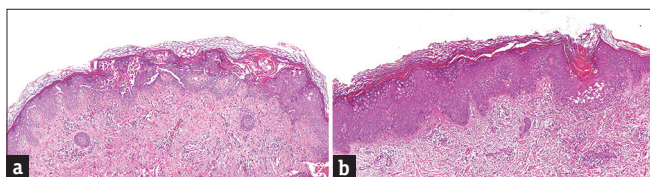


Figure 3: (a) Hailey-Hailey subtype: parakeratosis, dyskeratotic cells, suprabasal clefts, and perivascular mild inflammation (HE, $\times 100$). (b) Darier subtype: parakeratotic column, suprabasal cleft, dyskeratotic cells, spongiosis, and upper dermal inflammation (HE, $\times 100$)

ground, but they were mainly superimposed on peripheral brownish-gray, crusty borders.

de Abreu *et al.*^[4] described the dermatoscopic features of early vs late lesions of TAD. Early lesions, defined as erythematous papules, displayed pinkish-white background and central glomerular, peripheral linear/hairpin vessels. Late lesions, defined as crusted papules, showed a central yellowish-brown, star-like pattern surrounded by a white radiating halo, with hairpin and linear vessels. However, as the lesions of TAD can easily be excoriated due to intense itching, crusts may not always indicate lesion age.

The most striking feature of our patient was brownish-gray, prominent border with scale crusts. The dermatoscopic differential diagnosis of macules with peripheral scale crusts includes prokeratosis and pityriasis rosea. Prokeratosis shows an annular structure with a central whitish to hyperpigmented area and a peripheral yellowish-white, often double-margined border, defined as "white track." Brownish dots, globules, and open pores with plugs, in addition to dotted and hairpin vessels are other described features.^[8] In our patient, the lesions showed peripheral grayish-brown scales without double border phenomenon. The central area was not hypo- or hyperpigmented and no brown

globules or dots were present. On the other hand, pityriasis rosea shows peripheral white scales and yellowish-orange background.^[9] In our patient, the lesions were mainly rimmed by dark scale crusts, and white scale was a component that was partially present over or inside of the border. We think that besides dyskeratosis, parakeratosis may be responsible for this manifestation; nevertheless, the underlying factors are not totally clear yet.

In conclusion, the dermatoscopic features may not show the previously described features for TAD in every case, and dermatologists should preserve the suspicion of TAD if clinical features suggest so and should confirm the diagnosis by histopathologic examination. We underline that even though grayish-brown crusty frame-like borders with superimposed white scales, as seen in the present case, may be considered as nonspecific, they may support the diagnosis of TAD if clinical features are compatible.

Financial support and sponsorship

Nil.

Conflicts of interest

There are no conflicts of interest.

References

1. Fernández-Figueras MT, Puig L, Cannata P, Cuatrecasas M, Quer A, Ferrándiz C, *et al.* Grover disease: A reappraisal of histopathological diagnostic criteria in 120 cases. *Am J Dermatopathol* 2010;32:541-9.
2. Sadayasu A, Maumi Y, Hayashi Y, Dekio I, Ishizaki S, Fujibayashi M, *et al.* Dermoscopic features of a case of transient acantholytic dermatosis. *Australas J Dermatol* 2017;58:50-2.
3. Errichetti E, De Francesco V, Pegolo E, Stinco G. Dermoscopy of Grover's disease: Variability according to histological

- subtype. *J Dermatol* 2016;43:937-9.
4. de Abreu L, Guimarães Cordeiro NG, Buçard AM, Quintella DC, Argenziano G. Dermoscopy of Grover disease. *J Am Acad Dermatol* 2017;76:S60-3.
 5. Fink C, Toberer F, Haenssle HA. Dermoscopic characteristics of transient acantholytic dermatosis (Grover's disease). *Eur J Dermatol* 2017;27:648-50.
 6. Giacomel J, Zalaudek I, Argenziano G. Dermoscopy of Grover's disease and solitary acantholytic dyskeratoma shows a brown, star-like pattern. *Australas J Dermatol* 2012;53:315-6.
 7. Lacarrubba F, Boscaglia S, Nasca MR, Caltabiano R, Micali G. Grover's disease: Dermoscopy, reflectance confocal microscopy and histopathological correlation. *Dermatol Pract Concept* 2017;7:51-4.
 8. Nicola A, Magliano J. Dermoscopy of disseminated superficial actinic porokeratosis. *Actas Dermosifiliogr* 2017;108:e33-7.
 9. Bilgic SA, Cicek D, Demir B. Dermoscopy in differential diagnosis of inflammatory dermatoses and mycosis fungoides. *Int J Dermatol* 2020;59:843-50.

This is an open access journal, and articles are distributed under the terms of the Creative Commons Attribution-NonCommercial-ShareAlike 4.0 License, which allows others to remix, tweak, and build upon the work non-commercially, as long as appropriate credit is given and the new creations are licensed under the identical terms.

Access this article online

Quick Response Code: 	Website: www.e-ijd.org
	DOI: 10.4103/ijd.ijd_901_20

How to cite this article: Mansur AT, Demirkesen C. Transient acantholytic dermatosis: New dermoscopic features. *Indian J Dermatol* 2021;66:683-5.

Received: May, 2021. **Accepted:** October, 2021.