Indicators for Differentiating Atypical Discoid Lupus Erythematosus from Epifolliculitis with Dermoscopy

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To the Editor: Dermoscopy is a noninvasive and widely used tool to diagnose skin lesions. It enables the observation of morphological patterns that are not otherwise visible to the naked eyes.\(^1\) Given the wide variety of clinical features and uncommon clinical manifestations of dermatoses, sometimes incorrect diagnoses and subsequent improper treatments may be applied to patients erroneously. In such equivocal cases, dermoscopy can be an important tool for correctly diagnosing ailments.\(^2\) In this paper, we reported a case of discoid lupus erythematosus in a male patient. The discoid lupus erythematosus had atypical presentations, which was observed by dermoscopy and later confirmed by histopathological examination.

In the Department of Dermatovenereology, West China Hospital, a 38-year-old man was found to have rapidly progressing pimples, similar to epifolliculitis, which were located on the left forehead and caused minor pain for 2 months [Figure 1a]. The patient had been diagnosed as epifolliculitis and was treated with mupirocin cream before he came to our clinic. Unfortunately, the condition got worse with this treatment plan. A physical examination revealed that the patient’s skin had a distribution of dark red papule clusters, part of the surface was covered with a brown callus shell, and these lesions were limited to the left prefrontal area. The results of blood routine test and serum immunology test were normal, and the important examination related to this case including circulating immune complex, complement C3 and C4, antinuclear antibodies, double-stranded DNA antibody, SSA/Ro antibody, and SSB/La antibody showed no any significant finding. Dermoscopic evaluation of the lesions showed that a background erythema was interrupted by a prominent keratinization around the hair follicles and follicular keratotic plugging [Figure 1b]. As we used the dermoscopy-guided biopsy method described by Dr. Miteva and Tosti,\(^3\) the histopathological evaluation of the lesions revealed dilated follicular openings filled with cornified material, follicular plugging, a necrosed part of the stratum basale, and inflammatory cell infiltration of the perifollicular and shallow dermal layers, which indicated discoid lupus erythematosus [Figure 1c]. The man was cured after receiving more than 4 months of systemic treatment with hydroxychloroquine 200 mg/d, compound

**Figure 1:** (a) A 38-year-old male showed erythema, papules, callus shells, and plaques on the left prefrontal head. (b) Dermoscopic evaluation of the lesions showed an erythema that was interrupted by keratinization around the hair follicles (black arrow) and follicular keratotic plugging (black circle). (c) Histopathologic evaluation of the lesions revealed dilated follicular openings filled with cornified material (star symbol), follicular plugging (black circle), a necrosed part of the stratum basale (blue arrow), and inflammatory cell infiltration of the perifollicular and shallow dermal layers, which indicated discoid lupus erythematosus (H and E, original magnification ×40). (d) After more than 4 months of treatment, the condition had improved. (e) Dermoscopic evaluation of the lesions showed an erythema, a scar (blue arrow) instead of keratinization around the hair follicles, and follicular keratotic plugging.

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glycyrrhizin tablets three times a day, and topical treatment with 0.1% tacrolimus cream once a day [Figure 1d and 1e].

Physical examination and clinical features often allow an accurate diagnosis, but uncommon clinical manifestations may sometimes cause incorrect diagnosis and uncertain treatment. Here, we described a case of discoid lupus erythematosus with atypical presentations that was misdiagnosed as epifolliculitis initially. We observed lesions via dermoscopy that showed keratinization around hair follicles and follicular keratotic plugging. Follicular keratotic plugs are a marker of discoid lupus erythematosus and were originally described as a sign of early and active lesions.\(^4\) The dermoscopic technique allowed the visualization of these indicators for discoid lupus erythematosus. A dermoscopic-guided biopsy from the lesions showed keratinization around the hair follicles and follicular keratotic plugging. Through dermoscopy, we examined the dark red background, and our examination revealed that it had a potential association with a heavy dermatitis. Pathological biopsy assessment of the rash area revealed that the perifollicular and mid-dermal layers were infiltrated by the inflammatory cell. This was consistent with the findings observed by dermoscopy. Keratinization around hair follicles and follicular keratotic plugging observed by dermoscopy were validated in the pathological biopsy.

Dermoscopy is a widely used noninvasive tool for the diagnosis of skin lesions. Given these results, it appeared although some equivocal cases that cannot be accurately diagnosed by the naked eyes, dermoscopy could help to improve diagnosis accuracy.

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Conflicts of interest
There are no conflicts of interest.

References
1. Rubegni P, Burroni M, Andreassi A, Fimiani M. The role of dermoscopy and digital dermoscopy analysis in the diagnosis of pigmented skin lesions. Arch Dermatol 2005;141:1444-6.
2. Lallas A, Argenziano G, Apalla Z, Gourhant JV, Zaballos P, Di Lernia V, et al. Dermoscopic patterns of common facial inflammatory skin diseases. J Eur Acad Dermatol Venereol 2014;28:609-14. doi: 10.1111/jdv.12146.
3. Miteva M, Tosti A. Dermoscopy guided scalp biopsy in cicatricial alopecia. J Eur Acad Dermatol Venereol 2013;27:1299-303. doi: 10.1111/j.1468-3083.
4. Lopez T, Garcia H, Orozco T. Dermoscopy in active discoid lupus. Arch Dermatol 2009;145:358. doi: 10.1001/archdermatol.