

Bullous Erythema Nodosum Leprosum Through the Dermoscope

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Introduction

Erythema nodosum leprosum (ENL) forms a part of type 2 leprosy reaction characterized by crops of tender evanescent erythematous nodules that appear on extensors accompanied by systemic symptoms like fever and arthritis. Bullous ENL is a rare variant of the type 2 reaction characterized by multiple vesicles and flaccid bullae at sites of classic ENL with severe systemic symptoms. Other atypical variants include necrotic, hemorrhagic, purpuric, Sweet syndrome-like and erythema multiforme-like ENL.

Nowadays, dermoscopy is routinely employed in the diagnosis of leprosy, and it shows features akin to granulomatous dermatoses, explicitly, yellow-orange background reminiscent of underlying granulomas and few specific features. Specific features in the tuberculoid pole include loss of appendages and in the lepromatous pole xerosis, scaling, and hypopigmentation. Leprosy reactions are characterized by vascular changes in the form of arborizing blood vessels in ENL and diffuse erythema in type 1 reaction [1].

We report dermoscopic findings of bullous ENL lesions in a patient, findings that revealed both typical and atypical features.

Case Presentation

A 37-year-old male, with a known case of Hansen disease (borderline lepromatous leprosy) and on multidrug therapy consisting of rifampicin 600 mg monthly, dapsone 100 mg and clofazimine 50 mg daily for 1 year, presented with multiple red raised, painful, erythematous nodules distributed symmetrically over the face, back, and upper limbs. Vesicles and bullae containing clear fluid were superimposed on most lesions (Figure 1, A and B). There was associated redness of the eyes, a high-grade fever, and joint pains. Mucosal surfaces, palms and soles were not involved, and Nikolsky sign was negative.

Tzanck smear showed neutrophils, and acantholytic cells were absent. A slit-skin smear test for acid-fast bacilli (*Mycobacterium leprae*) from 8 different sites, including



Figure 1. (A) Two ruptured bullae containing clear fluid located on both the forearms. (B) Solitary larger ruptured bullae over the right pinna.

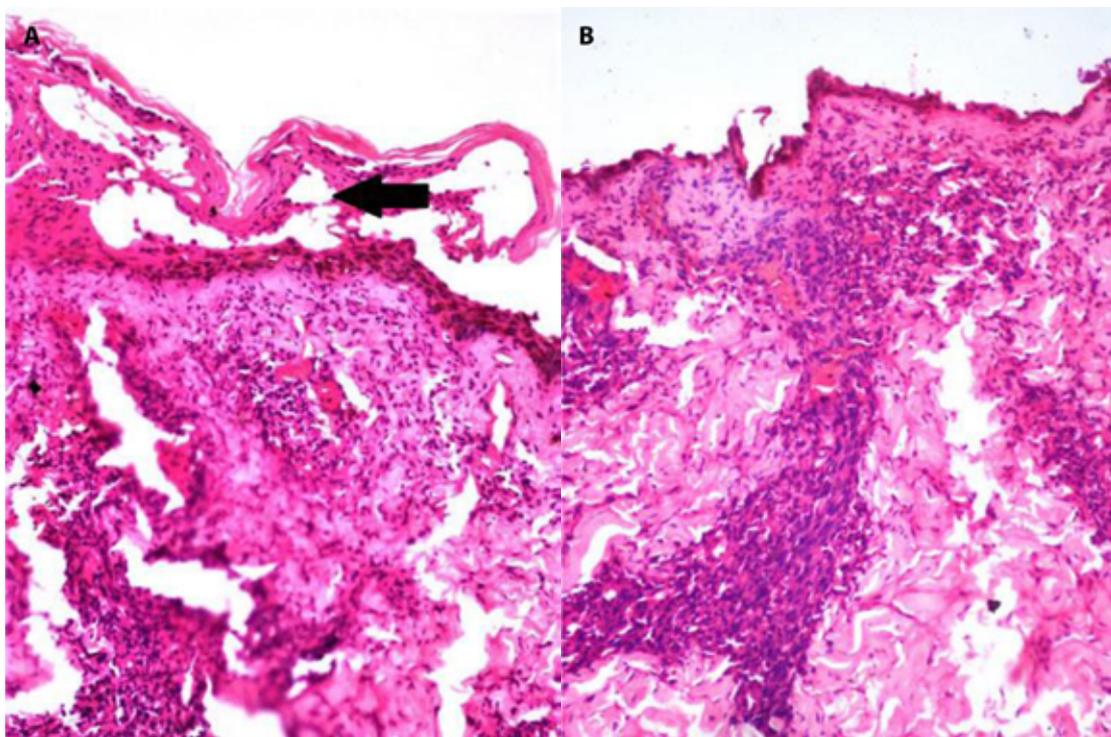


Figure 2. Histopathologic examination. (A) An intraepidermal split with spongiosis and neutrophils ($\times 40$) (black arrow). (B) Multiple ill-formed granulomas comprised of epithelioid cells and lymphocytes, and foamy histiocytes were noted surrounding the dermal nerves and appendages.

lesions, showed an average bacteriological index of 4+. Histopathology of the involved skin showed an intraepidermal separation, spongiosis, and neutrophilic infiltrate. Multiple ill-formed granulomas comprising of epithelioid cells, lymphocytes, and foamy histiocytes were noted surrounding the dermal nerves and appendages (Figure 2, A and B). Dermoscopy was performed using handheld DermLite DL4 dermatoscope, and images were captured with a Samsung phone. It showed a homogeneous white-pink area with an irregular border and surrounding erythema, similar to findings mentioned in the literature [2]. A closer view showed a few atypical and novel features in the form of a crumpled

fabric appearance of white-pink areas and brown-gray dots and globules at the periphery (Figure 3, A and B).

The patient was managed as a type 2 leprosy reaction (bullous ENL) with prednisolone 40 mg/day and thalidomide 100 mg 4 times a day. He responded to treatment and is currently on tapering doses of steroids and thalidomide

Conclusions

Leprosy has always eluded dermatologists with its varied presentations, and bullous ENL is an excellent example. With the growing popularity of dermoscopy in the diagnosis of

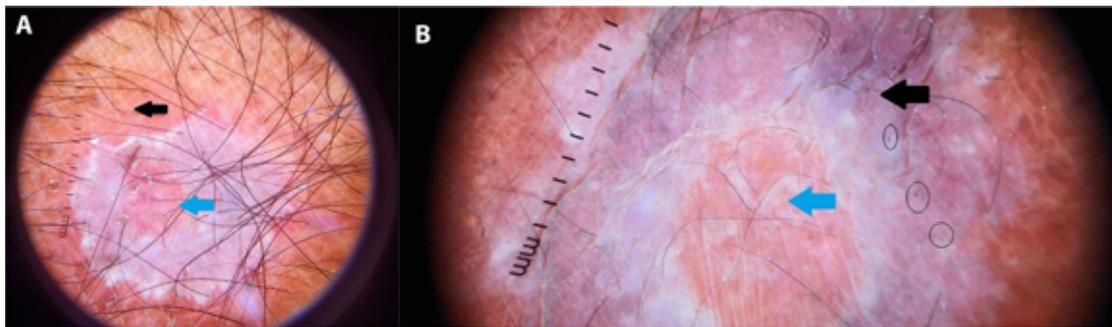


Figure 3. Dermoscopy. (A) A homogeneous white-pink area with irregular borders (blue arrow) and surrounding erythema (black arrow). (B) A closer view showed a few atypical and novel features in the form of a crumpled fabric appearance of white-pink areas (blue arrow) and brown-gray dots and globules at the periphery (black arrow and circles).

leprosy, we tried to analyze dermoscopic findings of bullous ENL lesions. The novelty of this case lies in intriguing clinical aspects and newer perspectives through the dermoscope.

Informed consent: Written informed consent for publication of clinical details and clinical images was obtained from the patient.

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