

Erythema nodosum leprosum

A 25-year-old previously healthy Indian man presented to the authors' hospital with a 1-week history of fever and rash. Examination showed a crusted erythematous infiltrated plaque over the right cheek (*Figure 1a*) and multiple tender erythematous nodules over the limbs (*Figure 1b*). His right ulnar nerve was thickened and tender.

Punch biopsy of a right forearm nodule was performed. Low magnification view showed perivascular and periadnexal inflammatory cellular infiltrate (*Figure 2a*). A higher magnification view (*Figure 2b*) showed mixed inflammatory infiltrate including foamy histiocytes, some containing intracytoplasmic clumps (globi) of bacteria (arrows). Special stains with Fite's acid-fast stain showed foamy histiocytes containing clumps of acid-fast bacilli (arrows, *Figure 2c*).

The clinicopathological features were consistent with a diagnosis of erythema nodosum leprosum. This patient was managed with high dose oral prednisolone on a weaning regimen. Two weeks later in clinic the nodulosis had improved dramatically, and he was commenced on rifampicin and dapsone under directly observed therapy.

Erythema nodosum leprosum is an inflammatory presentation of lepromatous

or borderline lepromatous leprosy, and is important to recognize to prevent neurological disability. Patients present with painful erythematous nodules and systemic features of fever, malaise, arthritis, neuritis and lymphadenopathy. Erythema nodosum leprosum is differentiated from erythema nodosum of other causes by distribution of lesions beyond the lower limbs and burden

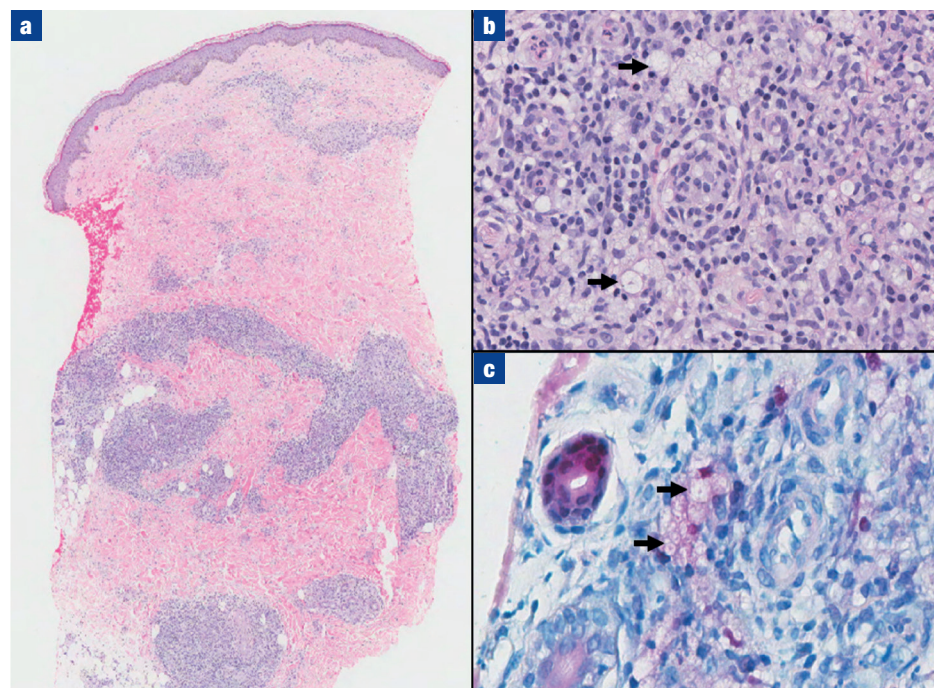
of nodules. Erythema nodosum leprosum is driven by both immune complex deposition and cell-mediated immune responses (Kahawita and Lockwood, 2008). **BJHM**

Kahawita IP, Lockwood DNJ (2008) Towards understanding the pathology of erythema nodosum leprosum. *Trans R Soc Trop Med Hyg* **102**(4): 329–337. <https://doi.org/10.1016/j.trstmh.2008.01.004>

Figure 1. a. Plaque over right cheek and (b) multiple nodules on left arm.



Figure 2. a. Magnification x10. Haematoxylin and eosin-stained section showing mid and deep dermal inflammatory perivascular and periadnexal inflammatory cellular infiltrate. b. Magnification x200 showing mixed inflammatory infiltrate comprising lymphocytes, plasma cells, neutrophils and foamy histiocytes. Arrows indicate foamy histiocytes containing intracytoplasmic globi of bacteria. c. Magnification x400. Special stains with Fite's acid-fast stain showed foamy histiocytes containing acid-fast bacilli.



Dr Damian Bruce-Hickman, Medical Officer, Department of Medicine, National University Hospital, Singapore, S119074

Dr Adeline MY Yong, Medical Officer, Department of Medicine, National University Hospital, Singapore

Dr Derrick AC Wee, Senior Consultant, Department of General Medicine, Alexandra Hospital, Sengkang Health, Singapore

Dr Nares Smitasin, Associate Consultant, Department of Infectious Diseases, National University Hospital, Singapore

Professor Tan Kong Bin, Professor, Department of Pathology, National University Health System, Singapore

Correspondence to: Dr D Bruce-Hickman (dbruce-hickman@doctors.org.uk)