was: polymorphs 71%, lymphocytes 26%, eosinophils 0%, monocytes 3%, T and B lymphocytes were 77% and 23%, CD4+ and CD8+ were 40% and 37%, respectively. The ENL histology was consistent with ENL (The Figure).

The patient was started on the World Health Organization multibacillary regimen with dapsone, rifampin and clofazimine along with prednisolone 1 mg/kg/day. Within 48 hr there was symptomatic improvement and the ENL lesions disappeared.

Why patients with histoid leprosy are relatively immune to the ENL reaction is not known exactly, but it is believed to be because histoid leprosy is an immunologically relatively stable form in the multibacillary spectrum of leprosy ([6]).

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Necrotic Erythema Nodosum Leprosum; A Presenting Manifestation of Lepromatous Leprosy

To the Editor:

Usually lepromatous leprosy presents with multiple hypopigmented macules, papules, nodules or plaques, symmetrically distributed over the face, trunk and extremities ([3]). Sometimes the presentation is unusual, in the form of a single nodule, spontaneous ulceration, histoid nodule or Lucio leprosy ([1, 2, 4, 5]). But, to the best of our knowledge, lepromatous leprosy presenting as necrotic erythema nodosum leprosum (NENL) lesions has not been reported in the literature so far.

We report here a patient with lepromatous leprosy who presented with necrotic and pustular lesions. Demonstration of acid-fast bacilli (AFB) from skin and pus smears by Ziehl-Neelsen staining and histopathology confirmed the diagnosis of lepromatous leprosy with ENL.

A 48-year-old male presented with painful, tender nodules and pustules with necrotic ulcers on the extremities of 2 weeks' duration. Some of the initial lesions were nodules which had turned into pustules in 2–3 days' time; other lesions were first noticed as pustules. The pustules had been covered with crusts after ulceration. There were neither any constitutional symptoms, such as fever and joint pain, nor any evidence of iridocyclitis, conjunctivitis, neuritis or orchitis. He had two similar episodes; one in January 1989 and one in August 1990, each lasting for about 2 months and subsiding with oral antibiotics and corticosteroids. In each episode multiple nodulo-pustular lesions appeared in crops. These episodes were associated with fever without any history suggestive of systemic involvement. There was neither a history nor clinical evidence of hypopigmented, hypoesthetic skin patch(es), paresthesia, glove-and-stocking anesthesia or motor weakness. A cutaneous examination revealed multiple,

erythematous, 1–2 cm, firm, tender, subcutaneous nodules and pustules present predominantly on the extensor aspects of the arms and legs, and a few crusted punched-out ulcers discharging seropurulent material. There was neither thickening nor tenderness of any of the peripheral cutaneous nerves. No significant lymphadenopathy was present, and a systemic examination was within normal limits.

Ziehl-Neelsen staining of a pus smear revealed AFB in clumps, and a slit-skin smear examination from the earlobes and eyebrows showed a bacterial index (BI) of 5+. The morphological index (MI) from the pus and slit-skin smear was 5% and 25%, respectively. Hematological investigations revealed a normal hemogram with a raised ESR (64 mm in first hr, Westergren). His renal and liver function tests were within normal limits, and examinations of urine and stool showed no abnormalities.

A skin biopsy showed a foamy macrophage granuloma throughout the dermis with neutrophilic, leukocytoclastic vasculitis. Ziehl-Neelsen staining of tissue for AFB showed fragmented and granular bacilli. The patient was treated with oral cephalexin 2 g, prednisolone 20 mg, rifampin 600 mg, clofazimine 300 mg, and dapsone 100 mg daily. All of the pustular lesions subsided within 1 week, and all of the nodular lesions flattened by more than 80% in 2 weeks. After 2 weeks, the cephalexin was stopped and the prednisolone reduced to 10 mg daily, but he continued on other antileprosy drugs in the same dosages. The patient had a similar episode within an interval of 1 month, while he was still on the same treatment. This time he was treated with prednisolone 30 mg, rifampin 600 mg, clofazimine 300 mg, and dapsone 100 mg daily. Pustular lesions subsided within a week, at which time he was put on thalidomide 300 mg daily. The prednisolone was tapered off slowly over the next 2 weeks, and the thalidomide was withdrawn completely within the next 2 subsequent weeks. The patient is now on the World Health Organization's regimen for multibacillary leprosy, and has not had any episodes of ENL in the last 1½ years.

The purpose of this report is to highlight an unusual presentation of lepromatous leprosy, presenting as pustular erythema nodosum leprosum.

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Attempts to Grow *Mycobacterium leprae* in a Medium with Palmitic Acid as the Substrate

To the Editor:

To use a multifactorial medium under microaerophilic conditions has been proposed by Kato ([4]) in cultivation trials for *Mycobacterium leprae.* Recently, Ishaque ([3]) investigated the effects of various known gas mixtures on the growth of *M. leprae.* An optimal growth, although limited, on both solid and liquid media was obtained when the cultures were incubated under a gas mix-