Acta Derm Venereol (Stockh) ; 78: 381–399

LETTERS TO THE EDITOR

Sporotrichoid Tuberculoid Leprosy

Sir,

Unique manifestations of leprosy are seen in places where it is endemic. We report one such patient with tuberculoid leprosy remarkably mimicking sporotrichosis.

CASE REPORT

A 58-year-old man from a rural area presented with nodular swellings on the right forearm of 8 months' duration. History revealed that he had had an asymptomatic, slowly progressing patch on the same forearm near the wrist one year previously. This was destroyed by a local healer by branding. Three months later he noticed nodular eruptions on the forearm which gradually increased in size and number. Family and personal history were not contributory.

On examination, a scarred patch (Fig. 1) was seen in the lower third of the extensor surface of the right forearm, at one end of which was a very small extension of the erythematous plaque that escaped destruction. A markedly thickened, linear, slightly tender cord extended from the patch to the elbow, interspersed with cystic nodular swellings, five in number. The swellings were of various sizes, nontender, the largest one situated at the junction of the lower lateral aspect of the right arm. The regional lymph nodes felt normal. Rest of the skin surface and other organ systems revealed no abnormalities. A complete haemogram, urine analysis, liver and renal function tests and X-ray of the chest were within normal limits. Giemsa and Ziehl-Neelsen stained smears and cultures of the thick aspirate from a cystic nodule were negative for bacteria and fungi. A 4 mm punch biopsy for histopathology was taken from the small erythematous plaque.

Low power examination of an H&E section revealed a thin epidermis. A granulomatous infiltrate of epithelioid cells surrounded by lymphocytes was seen to occupy the upper and mid-dermis. The dermal nerves were edematous and, on high power examination, intraneural epithelioid cell granulomas were seen with evidence of necrosis. There were occasional foreign body type giant cells and superficial nerve fibres were noted in the periphery limited by the perineurium. No acid fast bacilli (AFB) could be visualized in Ziehl-Neelsen stained sections. The impression was that of tuberculoid leprosy (TT).



Fig. 1. Scarred patch and thickened cord.

The Mitsuda response, read after 4 weeks at 0.1 ml of Lepromin A (GWL Hansen's Disease Center, Carville, USA), given intradermally on the volar surface of the left forearm, was 3+, showing an erythematous nodule 15 mm in diameter.

DISCUSSION

Multiple nerves can be affected in borderline leprosy, and in TT, where one nerve is usually involved, multiple abscesses along the nerve mimic a sporotrichoid pattern (1). Management of nerve abscess is giving (i) complete rest to the affected part, (ii) anti-inflammatory drugs and corticosteroids, and (iii) anti-leprosy therapy. When the abscess is large, surgical intervention may be required (2). Treatment of palsies requires expert care in a centre with adequate facilities. After completion of treatment the abscess(es) may persist as firm nodules for a long time or rarely may become calcified. Our patient had a scarred patch followed by a linear nodular eruption that involved the posterior cutaneous nerve of the forearm, a branch of the radial nerve given out in the radial groove. Being a purely sensory nerve there was no muscular wasting and deformity. A strong lepromin reaction and histopathological picture of epithelioid cell granulomas with giant cells and a prominent involvement of dermal nerve twigs support the diagnosis of TT leprosy. In contrast to other forms of leprosy, the acid fast bacilli are destroyed beyond recognition in TT. Had the patch been fully burnt, a nerve biopsy would have had to be performed. To date, *M. leprae* has not been successfully cultured in artificial media.

Branding the skin with a hot instrument is a practice prevalent in areas endemic for leprosy, similar to that employed in the pre-sulphone era when medications were injected intralesionally and topical acids were applied in the hope of "arresting a forest fire by burning a gap in the forest, across which the advancing flames cannot leap" (3). The relevant differential diagnoses in our patient include sporotrichosis and conditions causing lymphangitis.

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Accepted February 16, 1998.

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