Lepr Rev (1994) **65,** 282–285

Letters to the Editor

CONCOMITANT OCCURRENCE OF LEPROSY, CUTANEOUS TUBERCULOSIS AND PULMONARY TUBERCULOSIS—A CASE REPORT

Sir,

We report a leprosy patient also suffering from both cutaneous and pulmonary tuberculosis, a concomitant occurrence that has not previously been reported in the literature available to us. We report here a case of such rare combination. Though both the diseases are caused by mycobacteriae, no true antagonism exists to stop coexistence.

The concomitant occurrence of leprosy and pulmonary tuberculosis has been well documented in the literature,[1,2] but the association of leprosy and cutaneous tuberculosis has rarely been reported.[3,4,5]

A 23-year-old male presented complaining of an erythematous lesion around the left orbit that

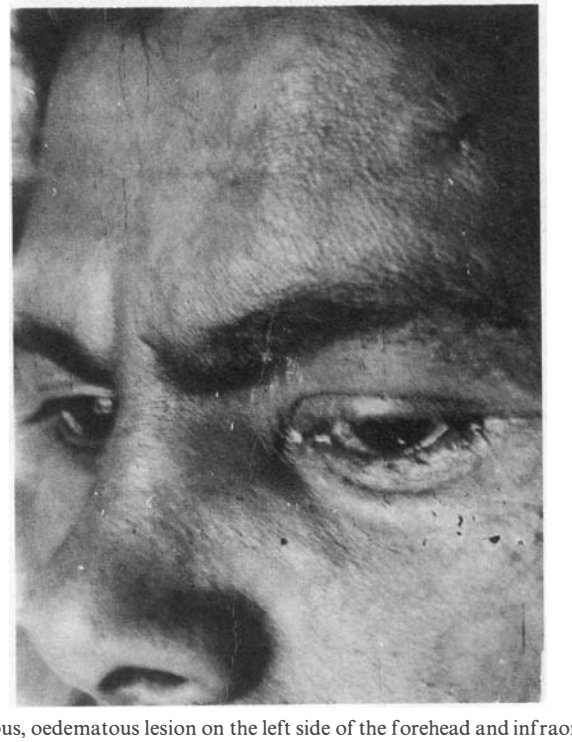

Figure 1. An erythematous, oedematous lesion on the left side of the forehead and infraorbital area, that almost encircles the orbit.

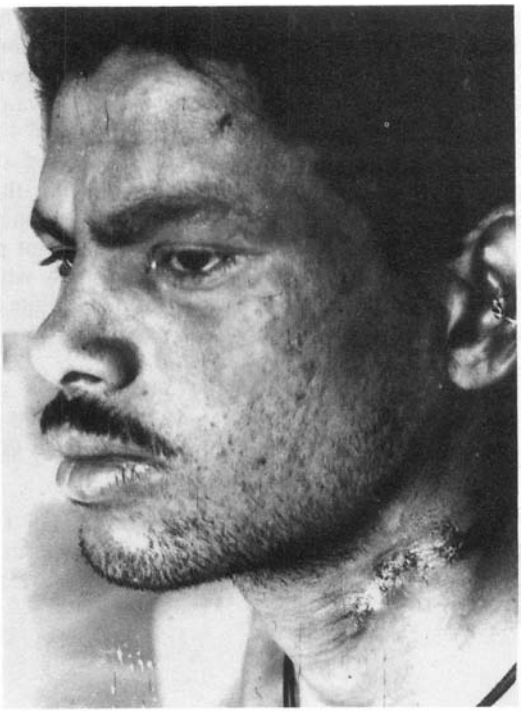

Figure 2. Multiple ulcers in linear fashion with undermined edges and marginal hyperpigmentation on the left side of the neck.

had continued for 1 month and multiple ulcerations with a discharge of pus on the left side of the neck for 15 days; ulcerations followed rupturing of the swelling in the neck. The swelling was of $1\frac{1}{2}$-months' duration, mildly painful and was gradually increasing in size.

There was a history of a rise of temperature each evening and of significant weight loss. He had not been treated for leprosy and/or tuberculosis.

Cutaneous examination revealed a well-defined erythematous plaque around the left orbit (Figure 1). There were multiple ulcers in linear fashion over the left side of the neck with undermined edges and hyperpigmented borders (Figure 2). There was no BCG scar on the left deltoid region.

A neurological examination revealed loss of touch and pain over the periorbital plaque. There was a weakness of the left orbicularis oculi muscle with epiphora suggestive of lagophthalmos due to involvement of the zygomatic branch of the facial nerve. No peripheral nerve thickening was observed. Respiratory system examination revealed crepitations in the right infraclavicular, axillary and interscapular regions. Mild hepatomegaly without splenomegaly was also detected.

Routine haematological and urine examinations were within normal limits except for raised ESR (40 mm/1st hour). Sputum smear was positive for *Mycobacterium tuberculosis* by ZN stain. A tuberculin test was negative. A chest X-ray revealed a cavity in the right apical region and miliary mottling in the midzones and basal zones on both sides of the lungs were suggestive of pulmonary miliary tuberculosis. Slit skin smears from both ear lobes and periorbital lesions were negative for AFB.

Clinically, we diagnosed the case as TT Hansen's disease in Type I reaction with scrofuloderma and miliary tuberculosis. Biopsy for HPE was done from the periorbital region and a lesion suspected as scrofuloderma from the neck. H&E stained sections confirmed our diagnosis of TT Hansen's disease in type I reaction from the periorbital lesion and scrofuloderma from the neck lesion.

The patient was treated with dapsone 100 mg per day, rifampicin 600 mg per day, INH 300 mg per day and pyrazinamide 750 mg twice daily. A topical application of steroid cream for periorbital lesion and administration of chloroquine reduced the severity of Type I lepra reaction.

The reported incidence of tuberculosis in leprosy patients in India varies from 2·5 to 7·7%.[6] A study in South Africa by Gatner[7] revealed pulmonary tuberculosis in 13·4% leprosy patients. Both Nigam[1] and Gatner[7] found that pulmonary tuberculosis occurred throughout the leprosy spectrum. This view was contested by Singh[6] who suggested that the association could be fortuitous or that it may actually reflect common environmental denominators.

The immunological defect in leprosy is quite specific and does not predispose to any other mycobacterial infection.[8] In this context, the association of leprosy with both pulmonary and cutaneous tuberculosis may be incidental as clinically there is no absolute antagonism between the two infections. Host resistance may be very poor thus paving the way for coexistence of dual mycobacterial diseases.

Management of the present case requires daily administration of rifampicin to avoid development of resistance to M. tuberculosis, and topical steroids and chloroquine to manage the type I lepra reaction, instead of oral/parenteral steroids, as they may exacerbate the pulmonary tuberculosis.

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