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Arthus-like Phenomenon and Lepromin A—a Case Report

TO THE EDITOR:

We would like to report a case of hyperactive reaction to lepromin A in a polar tuberculoid (TT) leprosy patient.

A female patient reported to our clinic with an erythematous, anesthetic, well-defined patch on the left maxillary area, 2 × 2 cm in size. Skin smears were taken from four sites: right elbow, left elbow, forehead, and patch. The bacterial index (BI) was negative. A biopsy was not done because of the location of the lesion. On clinical and bacteriological evidence the patient was classified as TT. A lepromin test was performed on the left forearm 5 cm distal to the cubital fossa. Lepromin (kindly supplied by Dr. R. C. Hastings, GWL Hansen's Disease Center, Carville, Louisiana, U.S.A.) was injected with a Dermo-O-Jet standardized to inject 0.1 ml with every shot. Fourteen days later the patient reported to our clinic with

a) an ulcer covering the whole of the original erythematous patch on the left maxillary area and extending 1 cm beyond the original margin (Fig. 1), and b) a large ulcer over the left forearm (Fig. 2). The ulcer was shaped like a doughnut of variable width whose internal margin had a radius of 5 cm; the



FIG. 1. Ulceration of tuberculoid lesion of the face.



FIG. 2. Ulcer at site of lepromin A injection with Dermo-O-Jet.

center of the internal ring appeared to be the original site of the lepromin injection. Both internal and external borders of the ulcer were irregular, elevated, and perpendicular to the base; both ulcers were covered with an eschar. No systemic symptoms or signs were noted. The supratroclear lymph node was enlarged and tender; the axillary nodes were just palpable. The patient was treated with broad-spectrum antibiotics and care of the wound. After 7 days most of the eschar had fallen off (photographs were taken at this time), and the lesion healed with minimal scarring in about 3 weeks. (Figures are self-explanatory.)

Such a hyperactive reaction to lepromin A, to our knowledge, has not been reported and, in any case, such extensive ulcerations following a lepromin injection are not very

common. The patient refused to undergo biopsy of the ulcer or any blood test.

It is interesting to note that ulcers developed—one on an area previously occupied by a TT patch and the other 5 cm away from the site of the lepromin injection. A few hundred patients have been injected with the same Dermo-O-Jet but only this patient reported with a hyperactive reaction. We report the case for its peculiar features.

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Skin Smears and Bacterial Index in Multiple Drug Therapy

TO THE EDITOR:

The letter by Drs. Georgiev and McDougall on skin smears and the bacterial index (BI) (IJL 56:101–104, 1988) gives an opportunity to share with them some of our feelings. Our comments in this often discussed but neglected subject are as follows.

OBSERVATIONS

Laboratory infrastructure. Although high level groups of experts have commented on the inadequacy of smear laboratories, in reality the matter has not moved from theoretical discussion to practice. Most laboratory technicians take a smear reporting job as a last resort. They find it unrewarding compared to the monotonous and strain-some job they do. As per the report of the independent evaluation of NLEP in India, "only 40.5% of the 823 sanctioned posts are filled of which about 10% are untrained." (1) Many peripheral laboratories are under-equipped. There is a lack of standardization in every step of the smear technique. The few guidelines prepared do not reach the peripheral labs.

Smear reporting as a diagnostic aid. All types of fully evolved leprosy cases can be

diagnosed by clinical features alone, and a smear report is mostly limited to early BL and LL cases and those paucibacillary (PB) cases which eventually evolve to the multibacillary (MB) form of the disease, due to irregular therapy.

Smear reporting as an aid to classification. A large number of cases can be grouped in the MB and PB groups by their clinical presentations. In these cases the smear report is confirmatory. A clinician generally depends on the smear report to classify the following cases: a) most of the borderline cases; b) rare BL and LL cases presenting with a single or a few lesions; and c) dapsone-resistant cases which sometimes have atypical presentations.

BI and MI as indicators of effective chemotherapy. Granular bacilli persist in dermal granulomas long after the cessation of clinical activity. Reports to the effect that nonsolid bacilli grow in the mouse foot pad are scanty, and this important aspect needs further study. It is a common observation that in the majority of cases the morphological index (MI) falls appreciably, following chemotherapy, more so if the initial MI is high.