

## HISTOPATHOLOGICAL STUDY OF LIVER IN LEPROSY

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### Summary

Fifty patients with lepromatous leprosy were studied. Involvement of liver was observed in 90 per cent of the cases. Fatty degeneration was seen in two cases only. Amyloid deposit was not seen in any of them.

Involvement of liver in patients with leprosy is well recognised. Most commonly observed lesion is the granuloma. Danielssen and Boeck described the pathology of leprosy and since then many reports have appeared in the literature regarding hepatic involvement in leprosy<sup>1,2,3,4</sup>. In some of the cases, lesions closely simulated cirrhosis of liver<sup>5</sup>.

Some observations on histopathological changes in liver in the present study are being reported.

### Material and Method

Fifty patients in the age group of 15-45 years with lepromatous leprosy constituted the material for this study. All patients except six were males. The duration of illness ranged from 6 months to 10 years.

On physical examination, none of the patients revealed any enlargement of liver, ascitis, jaundice or enlargement of abdominal veins. There was

no history of any alcohol intake in any of these patients.

Besides routine investigations, all the patients were subjected to liver function tests and liver biopsy examination. Histological sections of liver were stained with H & E stain, congo red for amyloid and Ziehl Neelson's stain for acid fast bacilli.

### Results

Five out of 50 patients with lepromatous leprosy showed no histopathological changes.

Foam cell granuloma were present in 27 (54%) out of 50 patients with lepromatous leprosy (Fig 1. Page No. 117). 8 of which had associated fibrosis. The granulomatous lesions were mainly restricted to the periportal areas. However, granulomas were also seen in liver parenchyma. These granulomata were characterised by collection of histiocytes, with and without vacuolated foamy cells containing lepra bacilli. Fibrosis was mainly present as portal scarring.

Cellular infiltration consisting of mono-nuclear inflammatory cells with few histiocytes were observed in 16 (32%) out of 50 patients with lepromatous leprosy, 6 of whom also had associated fibrosis. Fatty degeneration

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was seen in two cases only. Amyloid change in the liver was not detected in any of them.

Lepra bacilli were detected in liver biopsy specimen of only 7 out of 50 patients studied. Liver function tests and serum transaminase did not show any abnormality.

### Discussion

The results of present study show 90 per cent incidence of pathological changes in liver in lepromatous leprosy. This figure is consistent with those in other reports which give incidence of 80 to 100 per cent<sup>3,4,5,6</sup>. The changes were either those of granuloma in the liver or of infiltrations by mononuclear inflammatory cells with or without fibrosis.

Opinion regarding development of fibrosis in leprosy is divided. Some workers consider fibrous extension of the portal tract in leprosy as the end result of the disease itself<sup>3</sup>, while others regard it as a nonspecific change in response to drug therapy<sup>7</sup>.

Fatty degeneration was observed in two cases only. Similar changes have also been reported by other workers<sup>3,6</sup>. Lepra bacilli were present

in only 7 out of 50 liver biopsy specimens. Presence of lepra bacilli in the liver of patients with lepromatous leprosy has consistently been reported by various workers<sup>3,4,5</sup>.

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### Announcements...

Hind Kush Nivaran Sangh has just added 2 new posters to the existing health education material under the guidance of Dr. Dharmendra.

These are :

1. Agricultural rehabilitation - leprosy patients can be rehabilitated through agriculture.
2. Rehabilitate leprosy patients through agriculture - sowing seeds for better tomorrow.

The Sangh has also just reprinted 'Six questions about leprosy' in English and 'preventive rehabilitation of leprosy patients' in English.

These posters and publications can be obtained direct from the store - office, Hind kush Nivaran Sangh, 1, Red Cross Road, New Delhi 110001

Cost of the posters is Rs. 1.15 per copy or Rs. 110/- per 100 copies.