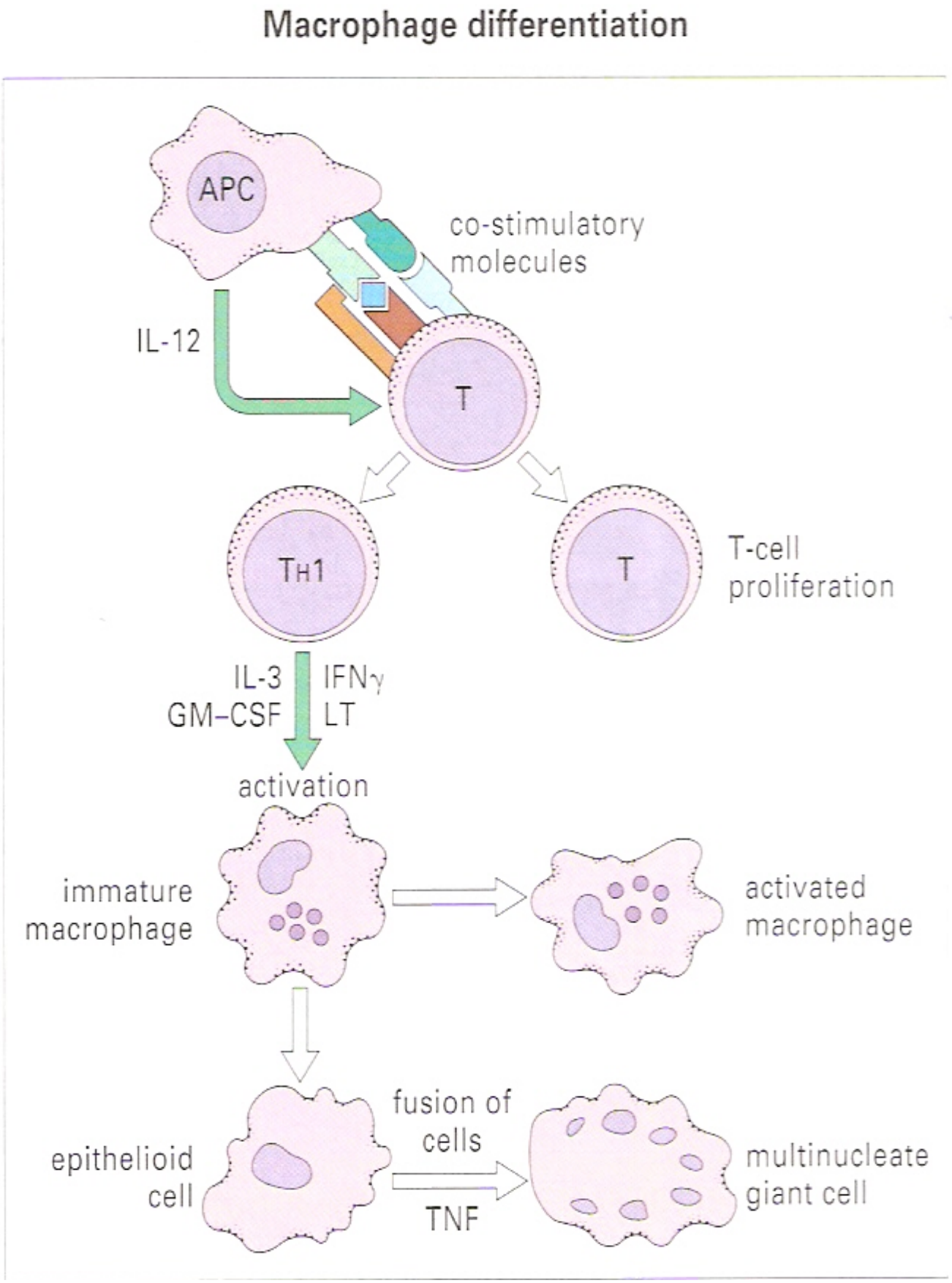

Figure-16 Bacterial products stimulate macrophages to secrete IL-12. An activated of T cells in the presence of IL-12 leads to the release of IFNγ and other cytokines, lymphotoxin (LT), IL-3, and GM-CSF. These cytokines activate macrophages to kill intracellular parasites. Failure to eradicate the antigenic stimulus causes persistent cytokine release and promotes differentiation of macrophages into epithelioid cells which secrete large amounts of TNFα. Some fuse to form multinuclear giant cells.

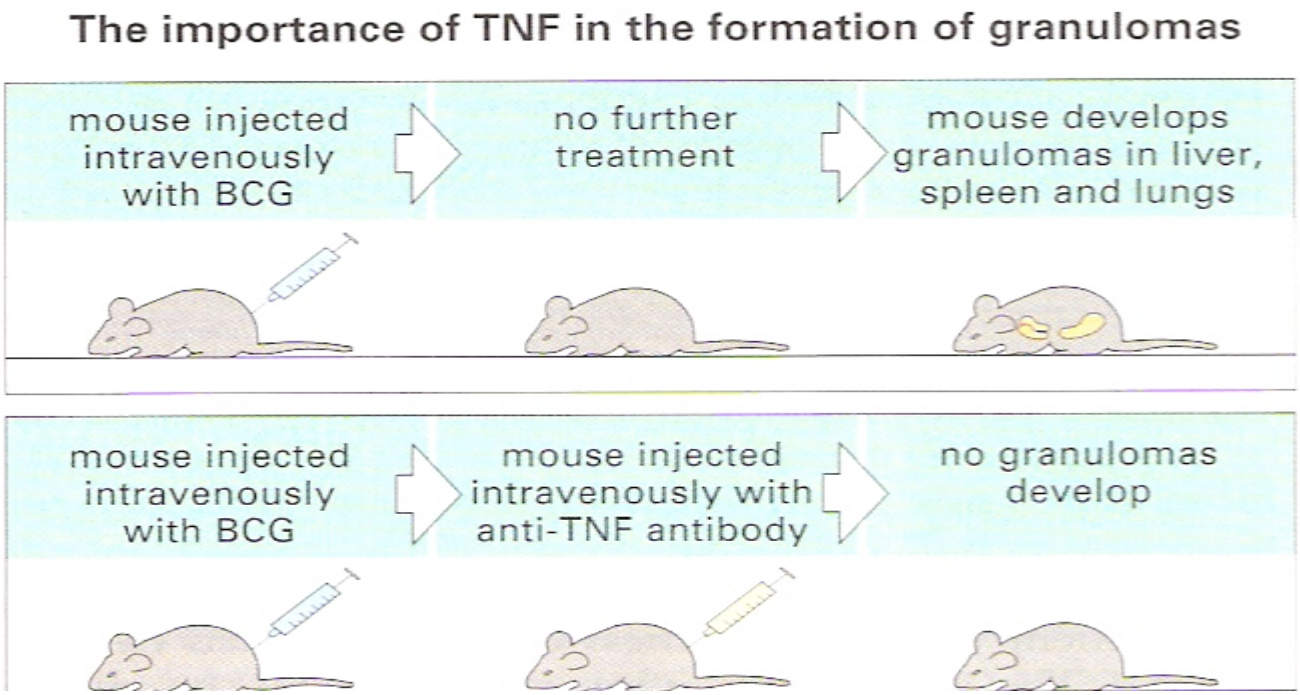

Figure-17 TNF is essential for the development of epithelioid cell granulomas. If BCG-injected mice are injected with anti-TNF-α antibodies, they do not develop granulomas.

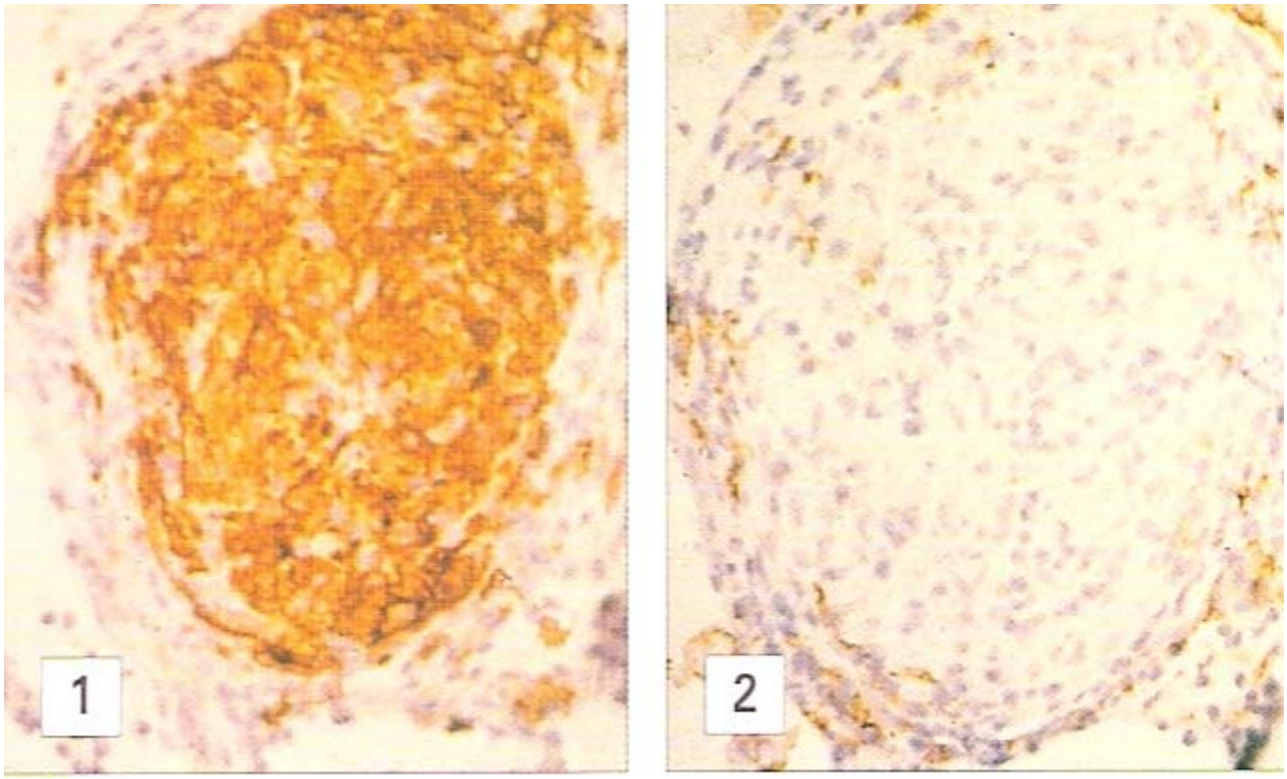

Figure-18 Epithelioid Cells in a granuloma from the lung of a patient with sarcoidosis. (1) The epithelioid cell and giant cells in the centre have been stained with the specific antibody RFD-9. (2) Mature tissue macrophages surrounding the granuloma are stained with the antibody RFD-7; the exact specificity of the antibody is not known.

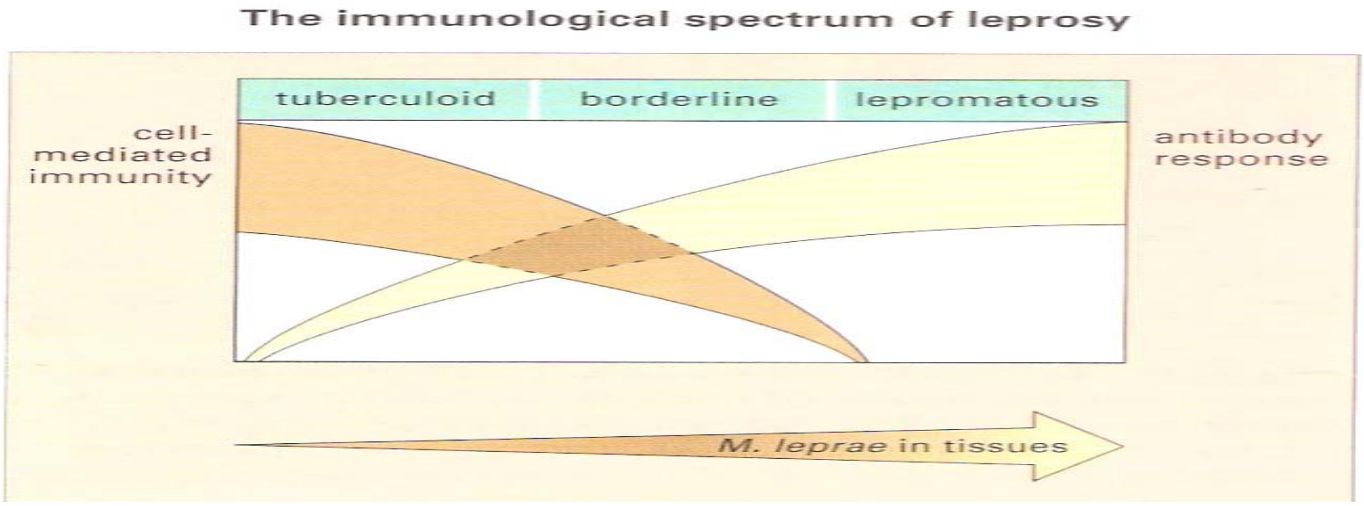

Figure-19 The clinical spectrum of leprosy ranges from tuberculoid disease, with few lesions and bacteria, to lepromatous leprosy, with multiple lesions and uncontrolled bacterial proliferation. This range reflects host immunity as measured by specific cellular and antibody responses to *M. leprae*, and the tissue expression of cytokines.

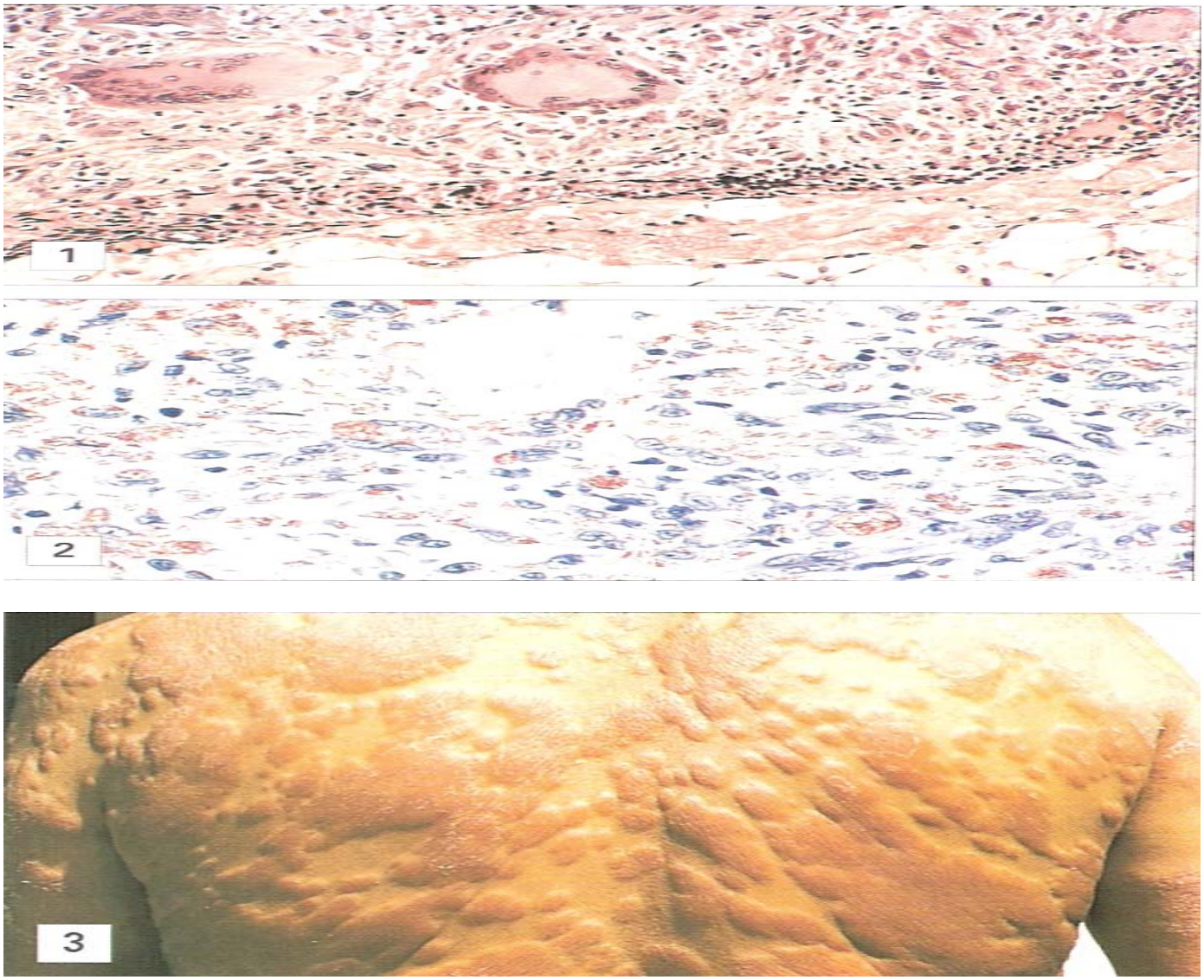

Figure-20 A borderline leprosy reactions. (1) This small nerve is almost completely replaced by the granulomatous infiltrate. (2) Lepromatous leprosy. Large numbers of bacilli are present. (3) Borderline lepromatous leprosy. There are gross infiltrated erythematous plaques with well-defined borders.

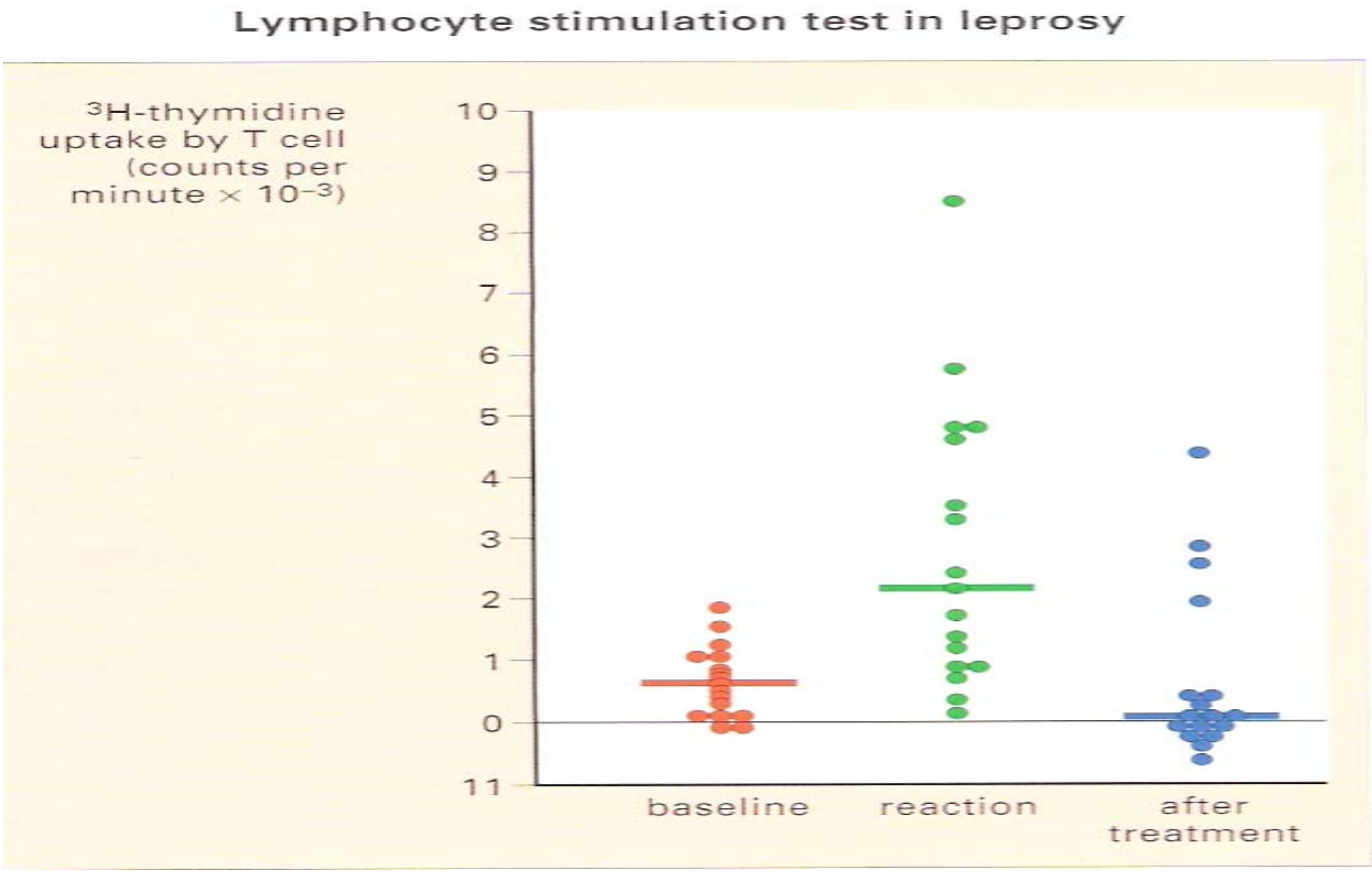

Figure-21 During a borderline leprosy reaction, the lymphocyte stimulation response to M. leprae rises. There is a fall in response when the reaction is treated successfully with corticosteroids. The lymphocyte stimulation responses to sonicated *M. leprae* (measured by uptake of ^{3}H-thymidine) are shown for 17 patients who developed such reactions: (a) before starting treatment with anti-leprosy drugs (baseline); (b) during the reaction; and (c) following successful treatment with steroids. Medians are indicated by horizontal bars.

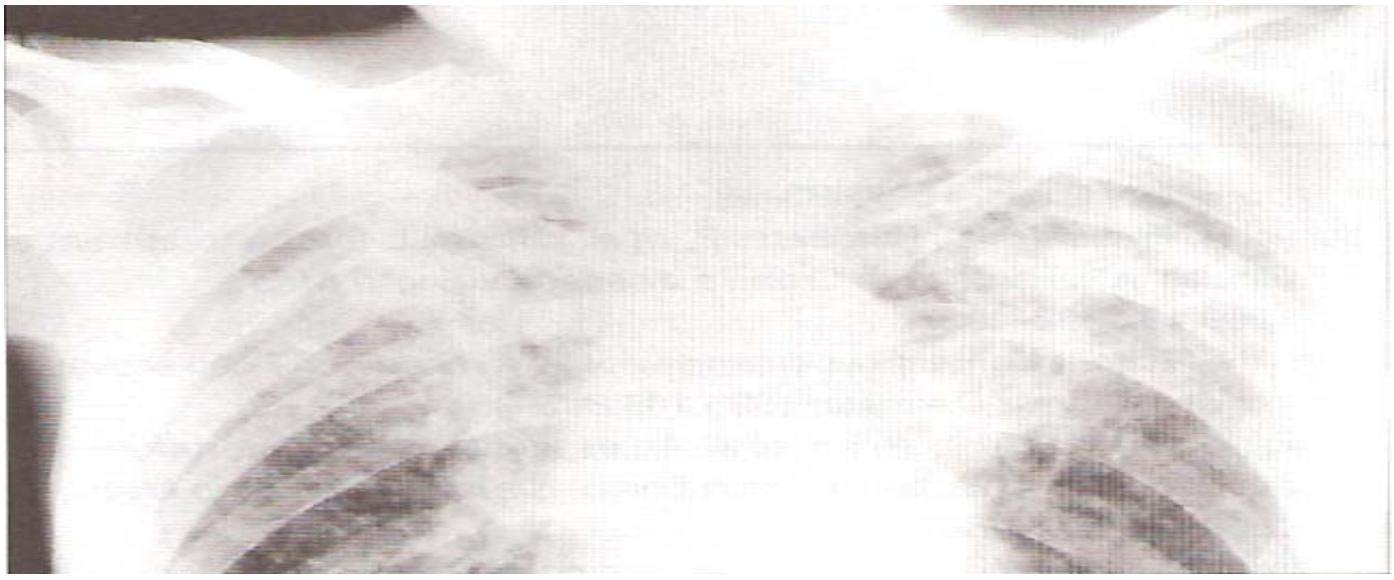

Figure-22 Chest radiograph of a patient with pulmonary tuberculosis. There is extensive parenchymal streaking, predominantly in the upper fields of the lungs. These changes are typical of chronic bilateral pulmonary tuberculosis. Some enlargement of the heart is also evident.

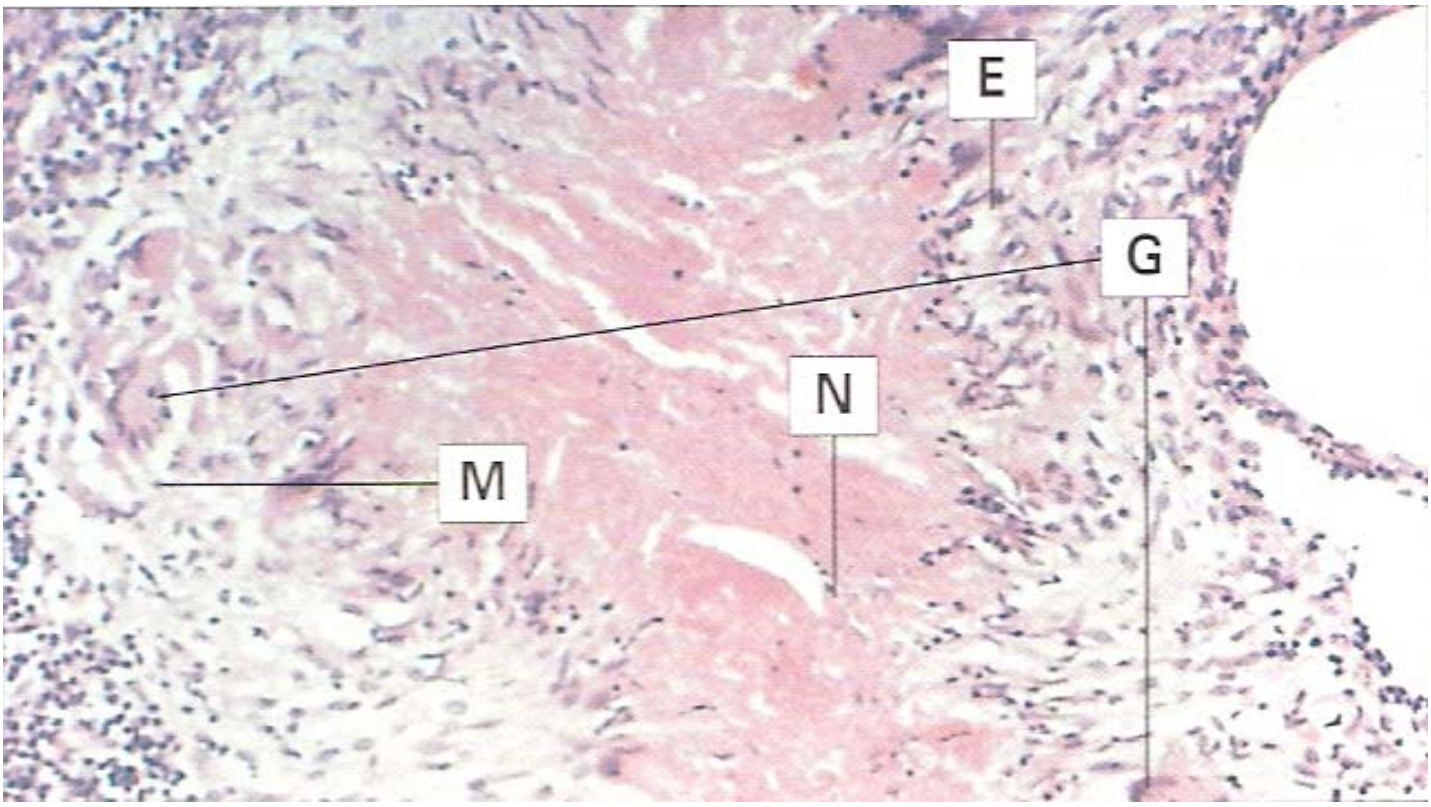

Figure-23 Histological appearance of a tuberculous section of lung This shows an epithelioid cell granuloma (E) with giant cells (G). Mononuclear cell infiltration can be seen (M). There is also marked caseation and necrosis (N) within the granuloma. H&E stain, x75.

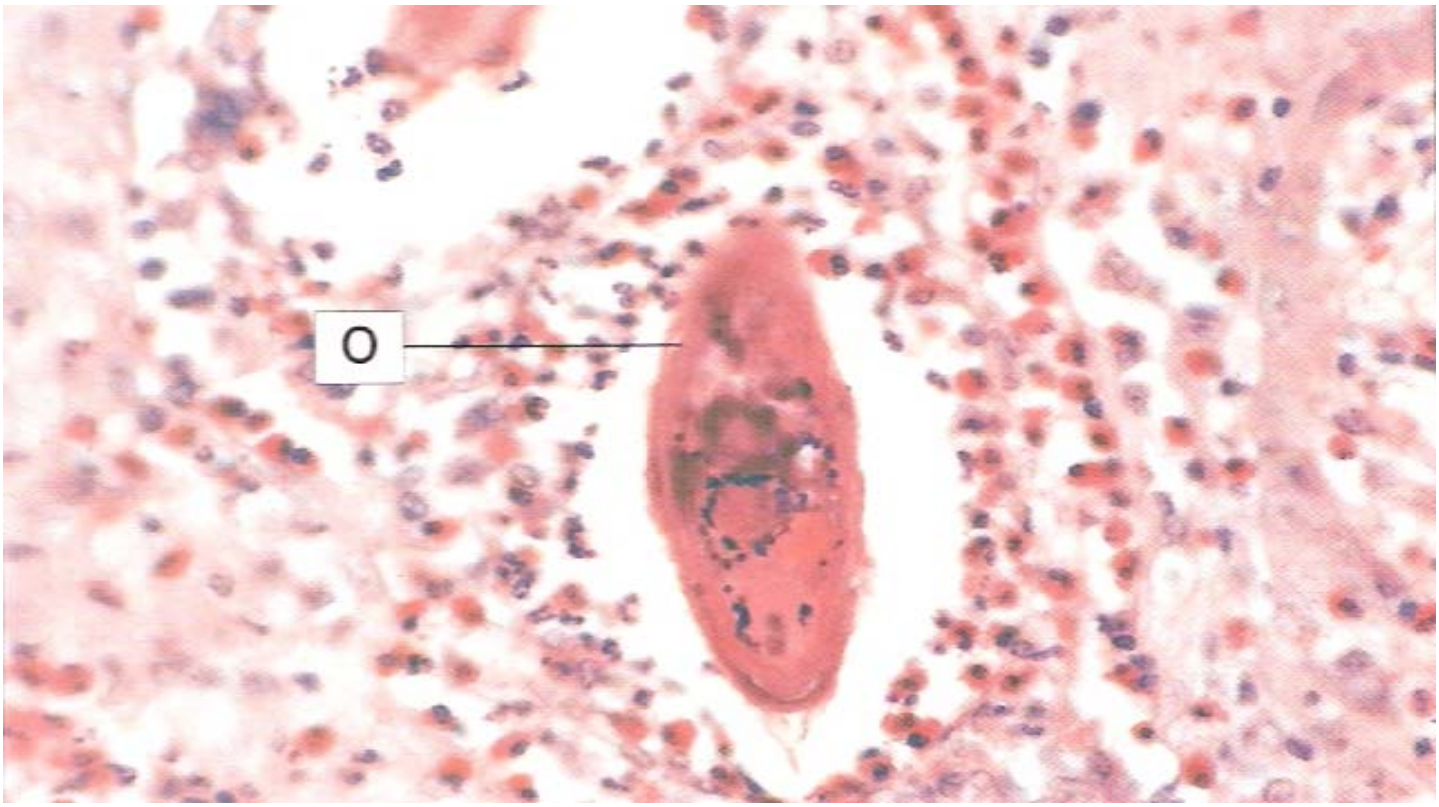

Figure-24 Histological appearance of the liver in schistosomiasis The epithelioid granuloma surrounds the schistosome ovum (O). H&E stain, x300.

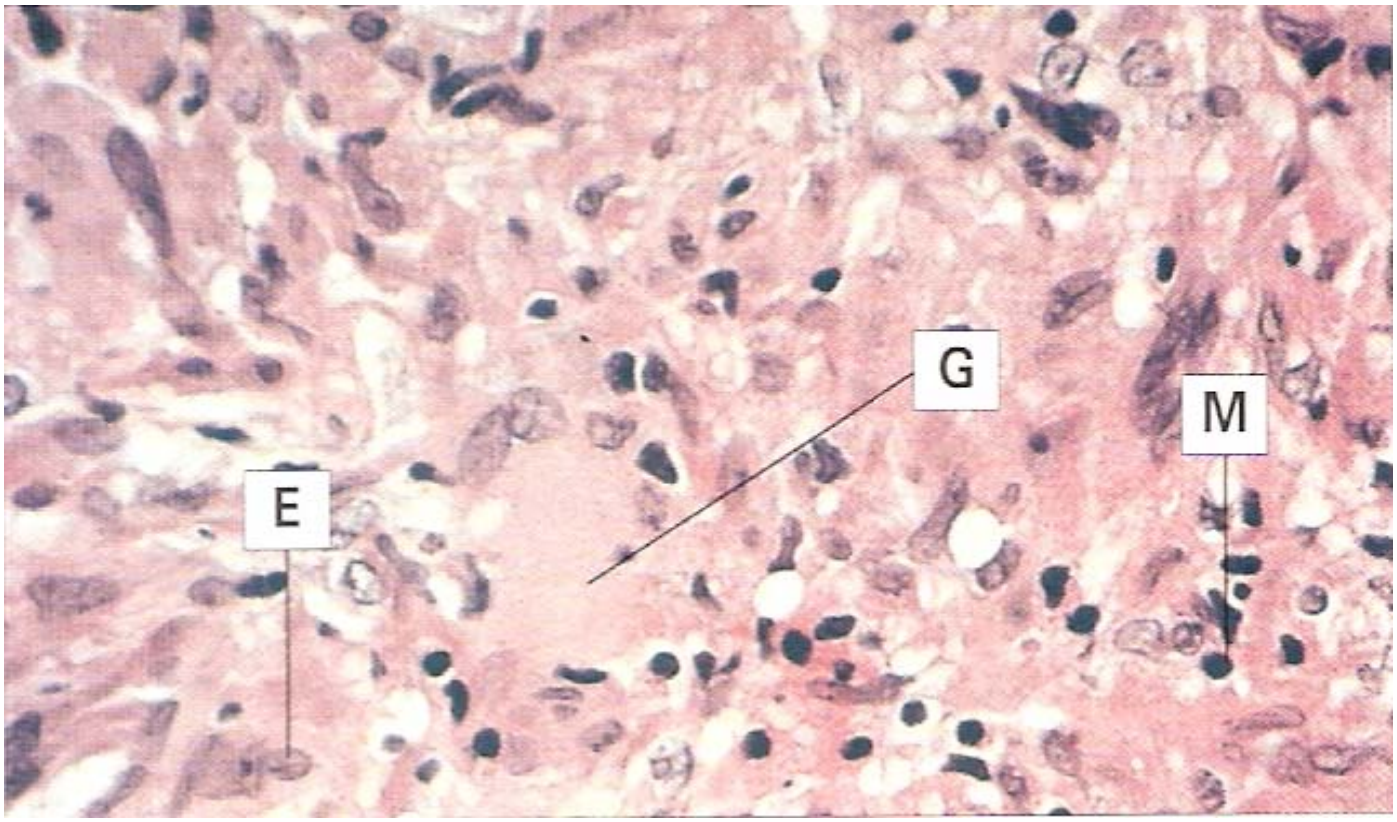

Figure-25 Histological appearance of sarcoidosis in a lymph node biopsy The granuloma of sarcoidosis is typically composed of epithelioid cells (E) and multinucleate giant cells (G), but without caseous necrosis. There is only a spare monocular cell infiltrate (M) evident at the periphery of the granuloma. H&E stain, x240.

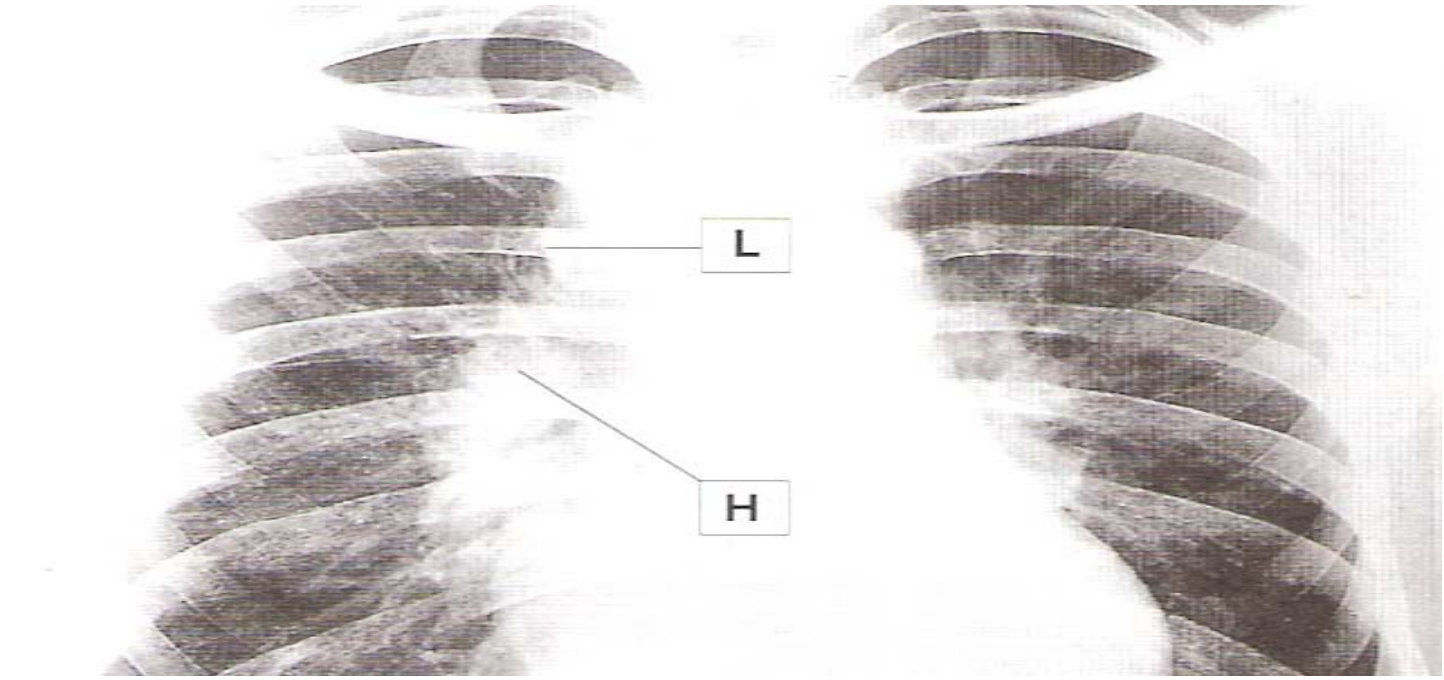

Figure-26 The chest radiograph of a patient with sarcoidosis there is enlargement of the lymph nodes adjacent to the hilar (H) and paratracheal (L) areas of the lungs, with diffuse pulmonary infiltration characteristics of disease.

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