



INFECTIOUS DISEASES (BACTERIAL, FUNGAL, VIRAL, PARASITIC, INFESTATIONS)

## **SINGLE LESION LEPROMATOUS LEPROSY IN A TEENAGER: AN UNEXPECTED SCENARIO**

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**Background:** Hansen's disease (HD) is a chronic granulomatous disease principally affecting the skin and peripheral nervous system caused by *Mycobacterium leprae*. The incubation period varies from months to more than 30 years. The tuberculoid form of HD usually presents with a single hypoesthetic patch and skin biopsy shows epithelioid granulomas with absence of bacilli on Fite-Faraco stain. In contradistinction, lepromatous leprosy usually presents with numerous papules, plaques and nodules with induration of the ears and nose. Biopsy shows foamy granulomas with presence of acid-fast bacilli on Fite-Faraco stain.

**Observation:** We present a case of a 13-year old female who presented with a 3-year history of a single hypoesthetic patch on the left knee. The initial clinical diagnosis was tuberculoid leprosy. However, histopathology revealed a Grenz zone, and a nodular granulomatous infiltrate consisting of epithelioid and foamy histiocytes with scattered lymphocytes. Fite-Faraco stain showed a bacillary index (BI) of 3+. Slit-skin smear revealed a BI of 4+. She was then started on multidrug therapy.

**Key Messages:** This case highlights the importance of slit-skin smear and biopsy as routine procedures in all new cases of suspected HD. These procedures will help differentiate multibacillary from paucibacillary forms of the disease which will influence decisions for treatment and prognostication. This case emphasizes that lepromatous leprosy may present with single lesions and may be misdiagnosed as paucibacillary leprosy if skin-slit smear and biopsy have not been done. This case further suggests that there are factors yet undetermined which play significant roles in determining the host response to *M. leprae* which are believed to influence morphology, configuration, number and distribution of skin lesions.

