



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

OCCURRENCE OF TUBERCULOSIS IN LEPROSY PATIENTS: A RETROSPECTIVE STUDY IN ANANDABAN HOSPITAL OF NEPAL

M Shah Shudi⁽¹⁾ - P Maharjan⁽²⁾ - P Parajuli⁽²⁾ - D Hagge⁽³⁾

The Leprosy Mission Nepal, Anandaban Hospital, Leprology, Venerology And Dermatology, Kathmandu, Nepal⁽¹⁾ - The Leprosy Mission Nepal, Mycobacterial Research Laboratories, Research, Kathmandu, Nepal⁽²⁾ - The Leprosy Mission Nepal, Research, Kathmandu, Nepal⁽³⁾

Introduction: Leprosy and tuberculosis are the most common mycobacterial diseases in the world, and both are endemic in Nepal. While not uncommon to clinical practice, studies or individual cases involving both are rarely reported.

Objectives: To investigate factors associated with coincidence of leprosy and tuberculosis infection.

Materials and Methods: Patients diagnosed with tuberculosis concurrent to or after leprosy diagnosis were retrospectively reviewed from medical charts from 2004 through 2018 at Anandaban Hospital- a leprosy referral hospital in Nepal.

Results: Of 2831 total leprosy patients registered during 2004 to 2018, 17 leprosy patients developed tuberculosis during (41%) or after (59%) anti-leprosy treatment. Most were male (70%) and averaged 40 years old (ranged 18-84 years). Sixty-five percent developed extra-pulmonary TB, including: bone and joint, skin, glandular and meningeal. The majority of TB developed in borderline lepromatous (BL, 12%) and lepromatous cases (LL, 59%), of which 67% BL-LL and 47% of total cases were under prednisolone treatment for leprosy reaction at the time of TB diagnosis.

Conclusions: Despite partial cross immunity, leprosy and tuberculosis infections in the same patient do occur in leprosy endemic populations, more frequently developing in BL/LL forms. Patients taking prednisolone and other immunosuppressive drugs for leprosy reaction management may have increased susceptibility to tuberculosis disease development in these patients. If a tuberculosis infection is undetected in leprosy patients, then Rifampicin therapy once monthly during multi-drug therapy MDT used for leprosy treatment may contribute to development of acquired drug resistance and delay in effective anti-TB treatment. Therefore, early screening for tuberculosis is imperative at leprosy or leprosy reaction diagnosis before initiating treatment with MDT and/or prednisolone, respectively, so that





proper therapeutic measures may be taken to avoid rifampicin monotherapy of Mycobacterium tuberculosis or development of tuberculosis.

