



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

ARTHRITIS IN BORDERLINE LEPROMATOUS LEPROSY WITH BOUTONNIERE DEFORMITY

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Background : The most common manifestations of leprosy are cutaneous and neuritic. Arthritis is another common rheumatological manifestation in leprosy. Arthritis in leprosy may cause joint destruction which eventually leads to swan neck and Boutonniere deformity which is rarely reported. Thus we report this case of arthritis in leprosy with Boutonniere deformity.

Observation : A 29 years old man presented with hypopigmented patches and joint stiffness on the thumb and index finger. Based on present illness history, physical examination, skin-slit smear, laboratory examination and histopathological findings, we diagnose the patient with borderline lepromatous leprosy. Hand x-ray demonstrated erosion, narrowing and flexion of the proximal interphalangeal (PIP) joints with hyperextension of the distal interphalangeal (DIP) joints of thumb and index finger. Therefore this patient was also diagnose with arthritis in leprosy with Boutonniere deformity. We treated the patient with multi drug therapy (MDT) for multibacillary (MB) type in 12 months.

Key message : Arthritis in leprosy may be caused by an immunological process which activates T lymphocyte to release cytokine such as interleukin-1 (IL-1), IL-6 and tumor necrosis factor alpha (TNF- α) triggering B lymphocyte to produce agalactocyl immunoglobulin which can induce chronic arthritis. Chronic infection of *M.leprae* extending to bone through the Haversian canal disrupts the cortical absorption and leads to bone atrophy and joints destruction. In the hands and feet bones, the process occurs mainly in the proximal and/or medial phalang area. This on going process results Boutonniere deformity. World Health Organization recommend MDT for MB and be given for 12-18 months.

