Leprosy Mimicking Common Rheumatologic Entities – A Case Report

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INTRODUCTION

Leprosy or Hansen's disease, caused by *Mycobacterium leprae*, primarily affects the skin and peripheral nerves. However, it can also involve visceral organs and the musculoskeletal system, including joints.

The clinical manifestations of leprosy are complex and variable, often mimicking other conditions, which contributes to frequent misdiagnosis and misinterpretation.

Among these, rheumatological manifestations such as arthritis, tenosynovitis, and myositis are common but frequently under-recognized, particularly in early or atypical presentations.

CASE PRESENTATION

A 36-year-old Sabahan man presented to the dermatology clinic with four months history of hypopigmented, hypoaesthetic skin patches over his upper limbs, thickened ear lobes, madarosis, and bilateral limb numbness. All cardinal signs of leprosy were present. A slit-skin smear confirmed lepromatous leprosy, and treatment with multidrug therapy was initiated.

Two months into therapy, he developed painful swelling in multiple fingers. Referred for suspected dactylitis, rheumatologic evaluation found bony-hard swelling in the proximal interphalangeal joints. Blood tests showed normochromic normocytic anaemia (Hb 11.5 g/dL), elevated ESR (35 mm/hr) and CRP (62 mg/L) with normal renal, hepatic, and autoimmune panels.

Hand radiographs revealed acro-osteolysis and periosteal reactions, with lytic lesions which is not consistent with rheumatoid arthritis or malignancy.

DISCUSSION

Musculoskeletal involvement in leprosy can mimic inflammatory arthritis, causing diagnostic confusion. In this case, the radiographic and clinical findings, along with the patient's leprosy diagnosis, pointed to joint damage due to chronic infection and neuropathy rather than autoimmune disease. Negative autoimmune markers supported this. Acro-osteolysis and symmetrical periosteal reaction are known complications of advanced lepromatous disease.

CONCLUSION

Leprosy can present with joint symptoms resembling autoimmune diseases. A high index of suspicion is essential, especially in endemic areas. Effective multidisciplinary collaboration is essential to ensure accurate diagnosis and appropriate management, thereby preventing irreversible complications.