

## SYPHILITIC OSTEOMYELITIS OF MULTIPLE BONES (A case report)

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### Summary

A case of syphilitic osteomyelitis of multiple bones is presented with a short review of literature.

Sexual 'Revolution' has sparked off world-wide increase in sexually transmitted diseases<sup>1</sup>.

There has been recently a resurgence of syphilitic infection both congenital and acquired. Though thought rare, osseous syphilis is an interesting problem. The bones may be affected in both the secondary and tertiary stages of acquired syphilis. With improvement in the treatment of syphilis, its manifestations in the bones are no longer common. This paper is intended to present a case of Multiple bone affections due to syphilis.

### Case report

38 years old male patient complained of swelling of antero-medial aspect of both legs and postero-medial aspect of both forearms and a mild deep-seated pain at all the above sites for about two and a half months. He did not complain of fever or prior trauma. He gave history of sore on the penis few years back, for which he did not take any treatment. General examination was found to be within normal limits. On local exami-

nation (Fig. 1 Page No. 227) revealed irregular thickening of the tibia, fibula and ulna about the midshafts bilaterally. They were slightly warm and tender on percussion. His haemogram was within normal limits, E. S. R. 36 mm in 1st hour and V. D. R. L. test reactive in 32 dilutions.

X-ray examination of the involved bones revealed areas of osteoporosis and marked sclerosis in the mid-shaft regions, with an abrupt change to normal architecture at the margin of the lesions (Figs. 2 & 3 Page No. 227). Radiographs of the skull did not show any abnormality.

A biopsy from the left tibia showed chronic non-inflammatory changes. In view of a past history of contact, positive V. D. R. L. test and radiological findings, a diagnosis of Syphilitic osteomyelitis of multiple bones was made. Patient was put on penicillin therapy. Within a week after the treatment he had remarkable regression of the symptoms and tenderness on percussion practically disappeared.

### Discussion

Though first discovered and described by Farrot in 1872 the 'Finger Prints' of syphilis over bones have been recorded for posterity by the skeletons of the ancients. Osseous manifestations of untreated acquired syphilis

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are seen in less than 5% of cases<sup>2</sup>. On the skull usual sites of involvement are the frontal, parietal and nasopalatine bones. Among the long bones tibia, femur, and forearm bones are affected in that order of frequency. The diaphyses of the long bones is usually involved. The lesions appear from one to two years after initial infection. The infection usually starts in the fibrous layer of periosteum. It is characterized by infiltration of small lymphocytes, plasma cells, epithelioid cells and occasional giant cells. The infiltration is particularly concentrated around the small blood vessels, which ultimately undergo obliterative endarteritis. Fibroblasts appear in large numbers in the areas of infiltration. The inflammatory process stimulates the osteoblastic activity in the adjacent osteogenic layer of the periosteum. This results in new bone formation on the surface of the cortex under the periosteum. The new bone is deposited in irregular fashion, resulting ultimately in thickening, roughening and irregularity on the surface. The new bone is more sclerotic than the normal and lacks its usual pattern. Usually, only one part of the bone is involved, and the transition from healthy to diseased bone is abrupt. Continuation of the process may result in either gumma or dense thickened 'ivory' bone.

Bone formation, bone destruction or both may be encountered at the same time. Since this pathological activity spreads very slowly sequestration is rare in long bones.

Occasionally the pathological process starts in the medullary cavity of long bones and erodes the cortex from within. This has been often called 'Syphilitic osteomyelitis'; bone syphilis of endosteal form.

That these lesions respond well to penicillin treatment is observed<sup>2,3</sup>.

In our case clinical, radiological and the therapeutic response strongly suggests this to be a case of syphilitic osteomyelitis of multiple bones.

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