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Tuberculous Osteomyelitis Mimicking Tumours and Tumour-Like Lesions of Bone: Clinico-Radiologic Study of 22 Patients

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Abstract : Context: Tuberculous osteomyelitis is a relatively uncommon condition that can present with various clinical and radiological features, often mimicking bone tumors or tumor-like lesions. In endemic countries like India, tuberculosis should be considered as a potential differential diagnosis for lytic bone lesions. This study aimed to highlight the different presentations of tuberculosis that can mimic tumors or tumor-like lesions in bone and emphasize the successful outcome of antitubercular therapy (ATT) in treating these cases. Research Aim: The main objective of this research was to explore the varied presentations of tuberculosis that mimic bone tumors or tumor-like lesions both clinically and radiologically, focusing on different bones. The study aimed to raise awareness among clinicians about this possibility and highlight the importance of histopathological confirmation before initiating treatment for lytic bone lesions. Methodology: This study utilized a retrospective review of 22 patients with suspected lytic bone lesions, who were subsequently diagnosed with tuberculous osteomyelitis through histopathological examination. The cases were collected over a period of ten years. Eleven cases required curettage for extensive lesions with sequestrations, while all 22 patients received 12 months of antitubercular therapy. Findings: The study included 14 male and 8 female patients, ranging in age from 3 to 61 years, with an average age of 22.05. The clinical and radiological presentations varied, with examples including bone cysts in the metaphyseal area of long bones, lesions resembling chondroblastomas, giant cell tumors, and osteoid osteoma, as well as multifocal lytic lesions resembling metastasis or multiple myeloma. One patient had lesions in both the clavicle and hand. Lesions mimicking chondromas were also observed in the phalanges of the hand and foot metatarsal. All patients showed resolution of the lesions and no residual disability following ATT. Theoretical Importance: This study highlights the importance of considering tuberculosis as a potential differential diagnosis for lytic bone lesions, particularly in endemic regions. It emphasizes the need for histopathological confirmation to accurately diagnose tuberculous osteomyelitis, as this is considered the gold standard. Data Collection and Analysis Procedures: Data for this study were collected retrospectively from medical records and radiological images of the 22 patients. The cases were analyzed based on clinical presentation, radiological findings, and histopathological confirmation. The outcomes of antitubercular therapy were also assessed. The data were summarized and presented descriptively. Question Addressed: This study aimed to address the question of how tuberculosis can mimic different bone tumors and tumor-like lesions clinically and radiologically. It also aimed to assess the successful outcome of antitubercular therapy in treating these cases. Conclusion: Tuberculous osteomyelitis can present with varied clinical and radiological features, often mimicking bone tumors or tumor-like lesions. Clinicians should consider tuberculosis as a potential diagnosis for lytic bone lesions, especially in endemic areas. Histopathological confirmation is essential for accurate diagnosis. Antitubercular therapy is an effective treatment for tuberculous osteomyelitis, leading to the resolution of the lesions with no residual disability.

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