ejpmr, 2021,8(5), 575-576

SJIF Impact Factor 6.222

EUROPEAN JOURNAL OF PHARMACEUTICAL AND MEDICAL RESEARCH

www.ejpmr.com

Case Study

ISSN 2394-3211

EJPMR

TUBERCULAR OSTEOMYELITIS –A RARE PRESENTATION AS BONE TUMOUR ON CONVENTIONAL RADIOGRAPH

Dr. Hitesh Kumar[1*], Dr. Esha Singh[2] and Dr. Anupam Jhobta[3]

[1]MD Radio-diagnosis, Civil Hospital Sunni, H.P. India.
[2]Department of Microbiology, IGMC Shimla, H.P. India.
[3]Professor and Head, Department of Radio-diagnosis, IGMC Shimla, H.P. India.

***Corresponding Author: Dr. Hitesh Kumar**
MD Radio-diagnosis, Civil Hospital Sunni, H.P. India.

Article Received on 15/03/2021 **Article Revised on 05/04/2021** **Article Accepted on 25/04/2021**

ABSTRACT
Although rare, tuberculosis of bone is an important cause of lytic bone lesions. The diagnosis may be easily missed or miss-interpreted as bone tumour, leading to inadequate and disadvantageous treatments. Further imaging and histopathogical confirmation is absolutely mandatory in such cases.

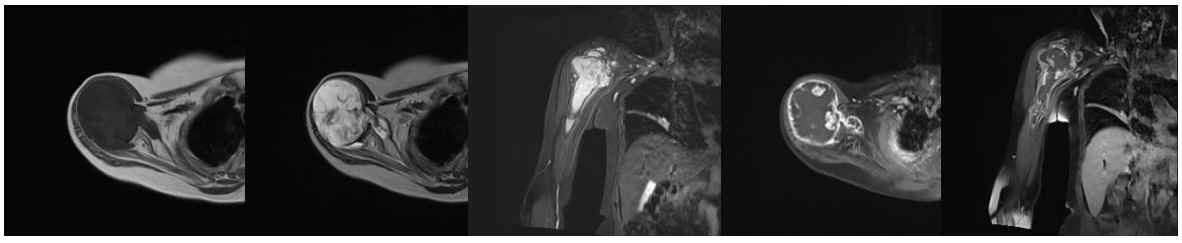
INTRODUCTION

Osteo-articular tuberculosis is very rare, accounting for 1.5 to 3% of tuberculosis infections: about 50% of these involve the spine. Clinical and radiographic findings lack specificity and it is difficult to obtain bacteriological confirmation.MRI is the imaging method of choice for skeletal tuberculosis. Typical findings include bone marrow edema, cortical disruption and intra and extra osseous collections.

CASE REPORT

A 70 years old female who presented with chief complaints of pain and swelling with limited movements of right shoulder joint for last six months. No history of fever. No history of ATT intake in past. Biochemical and hematological parameters were within normal limits.

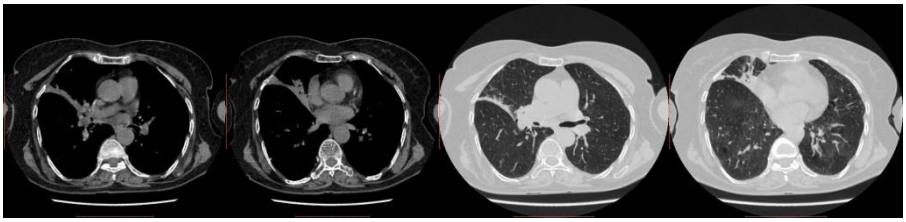
On X ray imaging- Deformed head of humerus with predominantly lytic expansible lesion involving head of humerus involving epi-meta-diaphysial region of humerus with arc and ring type of calcification with spiculated type of periosteal reaction with adjacent soft tissue and pathological fracture of shaft of humerus-the possibility of primary bone tumor-chondrosarcoma was kept



ON MRI-Altered signal intensity homogenously hypointense on T1 weighted images and predominantly hyperintense on T2WI and STIR weighted images was seen involving the head and epi-meta-diaphysial region of humerus with cortical break on medial aspect of humerus through which altered signal intensity was extending to involve gleno-humeral joint space and right subscapularis muscle .On post contrast images there was peripheral enhancement with enhancing collections in gleno-humeral joint and right subscapularis muscle.

MR findings were more suggestive of infective pathology-? Tubercular
1. Extensive bony involvement with intra-articular extension with intra-articular and intramuscular collections.
2. Peripheral enhancement.
3. Homogenous signal intensity on T1 weighted. Images.

HRCT Thorax was retrospectively done to look for any infective focus.



HRCT thorax shows -Alveolar opacities with few of them giving tree in bud appearance in RML and RUL with thickening of oblique fissure with soft tissue nodules in bilateral lung fields with mediastinal lymphadenopathy.-f/s/o pulmonary tuberculosis.

Based on collaborative MRI and CT findings the possibility of Tubercular osteomyelitis was kept which was presumptive of bone tumour on conventional radiograph.

Histopathogical findings-Arthroscopic biopsy of the lesion was done. There was presence of few lymphocyte and langhan cell with caseous necrosis-feature suggestive of Tubercular pathology.

DISCUSSION

Musculoskeletal TB mostly results from hematogenous or lymphomatous dissemination from a primary or reactivated focus of infection.Tubercular osteomyelitis usually involves the metaphysis. Further disease progression may result in radiographically visible bone destruction, transphysial spread of disease, and joint involvement. Rarely, lesions involve the diaphysis; cortical destruction may than occur, with subsequent development of periosteal reaction and a paraosseous soft tissue mass or collection which may mimic a bone tumor. Calcification may occur in chronic cases. Multifocal bone involvement may be seen with lesions at different stages of development.

MRI is imaging modality of choice for diagnosis for musculoskeletal tuberculosis with estimated 88.2% specificity and very high sensitivity, with typical findings reported in 90 to nearly 100% of cases. Multimodality imaging techniques may be sometimes required for accurate diagnosis.

CONCLUSION

Considering the above situation, we conclude that tubercular osteomyelitis may present as bone tumour on conventional radiograph. As osteomyelitis without primary focus is rare in adults, further evaluation to look for primary focus of infection and arthroscopic biopsy is required for early diagnosis and treatment of the patient.

Conflicts of interest
None

Source of funding
None

REFERENCES

1. Moore SL, Rafii M. Imaging of musculoskeletal and spinal tuberculosis. Radiol Clin North Am, 2001; 39: 329-42.
2. Martini M, Adjrad A, Boudjemaa A. Tuberculosis osteomyelitis: A review of 125 cases. Int Orthop, 1986; 10: 201-7.
3. Muradali D, Gold WL, Vellend H, Becker E. Multifocal osteoarticular tuberculosis; report of four cases and review of management. Clin infect Dis, 1993; 17: 204-209.
4. Chang DS, Rafii M, McGuinness G, Jagirdar JS. Primary multifocal tuberculous osteomyelitis with involvement of ribs. Skeletal Radiol, 1998; 27: 641-645.