



RETROSPECTIVE STUDY OF BONY LESIONS: A TERTIARY CARE CENTRE PERSPECTIVE.

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KEYWORDS : giant cell tumour (GCT), Osteosarcoma, Ewing's sarcoma, Chondrosarcoma, Fibrosarcoma.

INTRODUCTION:

A spectrum of pathological bony lesions can be presented in any form from inflammatory to neoplastic conditions. Bone consists of cartilaginous, osteoid, fibrous tissue, and bone marrow elements. Each tissue can give rise to benign or malignant tumors. Bone tumors are classified on the basis of cell type and recognized products of proliferating cells.

AIMS AND OBJECTIVES:

To determine the spectrum of various bony lesions and their relative frequency at RIMS, Ranchi, Jharkhand.

MATERIALS AND METHOD:

The retrospective study of all bony lesions over a period from January 2017 to December 2018 (2 years study). Patients were included in this study from 8 years to 85 years.

RESULTS AND ANALYSIS:

It is found that out of 44 cases 5 were inflammatory, 24 were benign and 15 were malignant bone tumours.

s.no.	Age (years)	No of patients	Inflammatory conditions	benign	malignant
1	< 10	5	1	4	0
2	11 - 20	11	1	6	4
3	21 - 30	12	1	7	4
4	31 - 40	4	1	3	0
5	41 - 50	5	0	2	3
6	51 - 60	2	1	0	1
7	>60	5	0	2	3

Out of 44 cases, the common benign and malignant tumours were giant cell tumour (GCT) and Osteosarcoma respectively. Among the 24 benign lesions, GCT was seen in 14 cases (58%), 8 cases were of Osteochondroma (33%) and 2 cases were of osteoma (8%). Out of 15 malignant lesions, 8 cases were of osteosarcoma (53%), 3 cases were of Ewing's sarcoma (20%), 3 cases were of Fibrosarcoma (20%), and 1 case was of Chondrosarcoma (7%). On radiographic appearance, 10 cases presented with the classic soap-bubble appearance of GCT and 4 cases showed only lytic lesion. 7 cases showed typical sun-ray appearance with 1 case showed cortical thickening.

DISCUSSION:

Primary bone tumors are fairly rare. Conditions that may simulate primary bone tumors, such as metastasis and non-neoplastic conditions such as inflammatory processes, bone cysts, fibrous dysplasia, non-ossifying fibroma, Paget's disease of bone, etc., by far outnumber the cases of true bone tumors. Benign bone tumors and many bone simulating, non-neoplastic conditions also show a striking age distribution.

CONCLUSION:

The histopathology is the final tool for the diagnoses of various types of bony lesions. Histopathology provides the final verdict for

further treatment of the patient. Bone lesions often pose diagnostic challenges to surgical pathologists. Therefore, an integrated approach involving radiographic, histologic, and clinical data are necessary to form an accurate diagnosis and to determine the degree of activity and malignancy of each lesion². Giant cell tumour is the most common bone tumor, accounts for 5 to 9 percent of all primary bone tumors. In present study, the most common site of giant cell tumor was lower end of femur and upper end of tibia. It is usually seen in patients over 20 years of age. It is more common in women than in men³⁻⁴. Osteosarcoma usually occurs in patient between 10 and 25 years of age, another peak age incidence occurs after 40. Most rise denovo, but others arise within context of pre-existing conditions like paget's disease, radiation exposure, chemotherapy, pre-existing benign bone lesions, foreign bodies, trauma and genetic predisposition⁵.

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