



## RESEARCH ARTICLE

### RIB OSTEOSARCOMA IN AN ADULT: RARE LOCATION IN FLAT BONE

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#### Abstract

We report the computed tomography (CT) imaging appearances in an adult case of primary osteosarcoma of the rib in 50-year – old man. This tumor was suspected when we found dense calcification with in mass centered in a rib.

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#### Introduction:-

Osteosarcoma has as usual location the metaphysis of long bones, especially lower end of the tibia and humerus (1). Flat bone site, particularly rib osteosarcoma represents rare entity in adults (2).

Rib osteosarcoma as primary tumor is infrequent, and represents 1-2% of all osteosarcomas in flat bones (1).

We report a case of primary osteosarcoma arising from the ribs of a 50-year-old male patient that create diagnostic difficulty due to unusual location.

#### Case Report:

A 50-year-old man presented with a 6-month history of a burning and slow-growing mass over the chest wall on the left side. The patient denied previous radiation therapy or trauma.

The physical examination found bony hard mass in the left hemi thorax, fixed and remains away from the breast and the axilla.

Chest radiography has not been achieved.

Computed tomography (CT) revealed a lobulated extra pleural mass centered in the left 7th rib, measuring 90x110mm, this mass contained coarse calcification and areas of necrosis (figure 1).

There were no lung metastases.

The anatomopathological study after biopsy showed conventional osteosarcoma.

#### Discussion:-

Osteosarcoma generally arise from the metaphysis of long bones, this can be explained by the presence of considerable site of bone growth containing areas of cell mitotic activity. (3) osteosarcoma of the rib remains a rare entity in adults and is mainly confined to the paediatric population.(2)

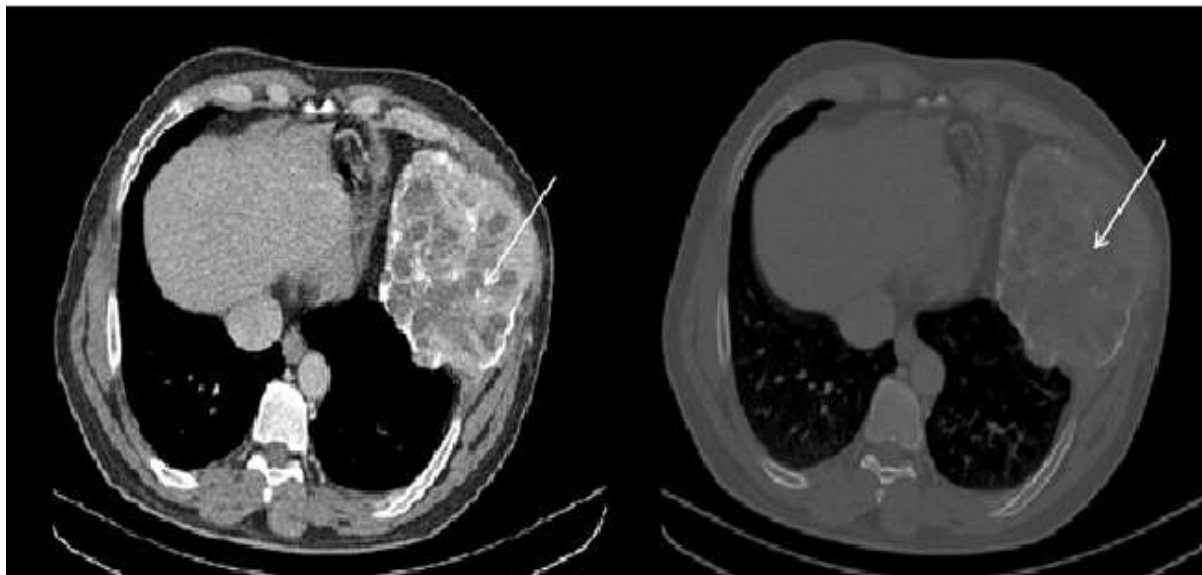
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Osteosarcomas arise from flat bone represents a real maze for radiologists. Primary osteosarcoma is seldom (4), however this tumor can be confused with chondrosarcoma and fibrosarcoma, not forgetting of course skip metastases.

These tumors do not have the same behavior as the metaphysis osteosarcoma and need different treatment (5). Some authors advanced that the CT offer optimal assessment and describe, the tumor matrix, central calcification associated with large extra pleural tissue mass with epicenter locate to the rib (6,7). The association of a mass centered on the rib and dense calcifications, the diagnoses mainly retained are osteosarcoma or chondrosarcoma (8). The CT allows also the analysis of the adjacent structures, precise the involvement of lung, diaphragm, and neurovascular elements and helping for treatment decision.

The guidelines for management, the prognosis and survival rates in primary osteosarcoma of rib are not clear due to the small number of cases studied. The treatment is based on the association of surgery and adjuvant chemotherapy.

In conclusion, this case call the attention to the fact that osteosarcoma of the rib is rare chest wall neoplasm, and need to be considered as the differential diagnosis of primary malignant tumor of chest wall.



**Figure 1:-** CT scan of chest shows the tumor mass with central dense calcification (white arrowheads).

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