

(MRI) and angiography⁴. This patient was evaluated with plain films and CT of the chest, as these are the modalities which are currently available at our centre.

Shin *et al*⁶, while evaluating primary and secondary sternal neoplasms, were able to demonstrate that computed tomography was more informative than conventional radiography. They concluded that biopsy, however, remains essential for confirmation of the nature of the tumour.

Tapeznikov, *et al*⁷ in a study of 24 patients with primary neoplasms of the sternum including chondrosarcoma (18 cases), solitary plasmacytoma (5) and osteogenic sarcoma (1) based their diagnosis mainly on x-ray procedures with further evaluation by computed tomography. They inferred that computed tomography allowed precise evaluation of the extent of intrathoracic mass and its relationship to adjacent mediastinal structures. The current patient benefited from evaluation with computed tomography which clearly defined the site and extent of the tumour mass and its effect on the adjacent structures. This allowed for total tumour excision.

MRI is very useful in the evaluation of osteosarcoma because of its better soft tissue resolution, multiplanar effect and the use of non ionizing radiation. Using standard T1 and T2 weighted and fat suppression images, MRI helps in appropriate surgical staging of the primary tumour to show the bony and soft tissue extent of the lesion and to confirm or exclude skip metastases and local lymph node involvement. With this, accurate surgical planning can be achieved^{8,9}.

Triple phase whole body bone scintigraphy using Thallium (Tl 201) is of value in staging to confirm or exclude multiple lesions, intraosseous extent of the tumour and distant metastases.

Data concerning treatment and results of primary malignant chest wall tumours are scanty because of the rare occurrence of these tumours. The most common treatment for osteosarcoma of the sternum is combination of radical en-bloc excision of the tumour mass or incisional

biopsy followed by irradiation in case of a large tumour and chemotherapy with reconstruction of the large defect in the chest wall from surgery¹². The patient had a successful excision biopsy of the tumour mass followed by a course of chemotherapy. She is still being followed up and doing well. The importance of radiological diagnosis leading to surgical management and histological correlation were highlighted.

References

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