

Primary Osteosarcoma of the Sternum: A Case Report

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Summary

A rare case of sternal osteosarcoma in a 25-year-old student has been presented. The importance of histological correlation with radiological diagnosis and surgical management were discussed.

Key Words: Osteosarcoma, Bone tumour, Sternum, Histology, Malignant.

Introduction,

Osteosarcoma is a bone tumour that consists of malignant cells that produce immature bone. It is the most common malignant bone tumour in children and adolescents, occurring particularly in the age group between 11 and 19 years. It affects males twice as commonly as females. The prevalent site of osteosarcoma is the metaphyseal end of long bones, especially in the distal third of the femur, followed by the proximal third of the tibia and lastly, the proximal third of the humerus. These sites account for approximately 80% of osteosarcomas in childhood¹. Primary tumours of the sternum in childhood are very rare; they are generally malignant and comprise only 0.3% of sternal tumours in all age group¹⁻⁴.

This case is presented because of the very rare occurrence of osteosarcoma of the sternum. It is also to emphasize the different radiographic appearances in radiological evaluation with plain films and computed

tomography and the need for further histopathological correlation.

Case Report

AE is a 25-year-old female final year diploma student. She first presented at the General Practice Clinic (GPC) of the University of Benin Teaching Hospital (UBTH) on the 23rd March 2007 with a swelling in the midline of the anterior chest wall for about 6 years. The swelling has progressively increased in size and recently became painful prior to presentation. The pain was aggravated by deep inspiration. She also experienced easy fatigability.

There was no history of trauma to the chest; neither was there haemoptysis, dyspnoea, fever or weight loss. She admitted using some herbal medicine for the swelling without any noticeable effect. Following initial assessment at the GPC she was referred to the cardiothoracic surgery clinic.

The patient is the sixth child of 8 siblings in a monogamous family. She neither smokes cigarette nor drinks alcohol. Both parents are farmers. There is no history of similar illness in any member of the patient's family.

On examination at UBTH, the patient looked well nourished. She was not febrile, pale or jaundiced. There was a hard mass measuring 15 x 14cm in size overlying the middle of the sternum (Fig. 1).