Chondroblastoma in scapula – A rare case report

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Abstract

**Introduction**: Chondroblastoma is a benign but locally destructive lesion that was first described in 1942 by Jaffe and Lichtenstein. These are rare tumours, the incidence being less than 1% of all primary bone tumours. Males are affected more often than females, the ratio being approximately 1.7:1. Because of its rarity and resemblance with a malignant tumor it poses a clinical and radiological challenge to the diagnosis.

**Methods**: A 17-year old female presented with swelling of the left scapula since 3 months. She gives history of progressive increase in the swelling associated with pain and tenderness. No history of trauma or infection. No history of loss of appetite or loss of weight.

On examination there was a firm, large, mildly tender mass located in the lower part of left scapula. Margins were ill defined and gradually merging with rest of scapula. Swelling was mobile along with scapula. Her shoulder movements were normal. Plain radiograph showed a huge expansile lesion in the lower part of scapula with multicystic and sclerotic changes. CT scan of scapula showed expansile osteolytic lesion with destruction of left scapula involving body with soft tissue components and cystic areas, thinning and erosion of overlying cortex and narrow zone of transition. The lesion measures about 6.1*4.2*5.5 cms. No evidence of calcification seen within the lesion. MRI with contrast showed complex cystic mass lesion of left scapula body infraspinus location. Lesion shows soft tissue intensity solid component and cysts show fluid-fluid level layering. Multiple thick septation and loculations noted.

**Results**: Through a posterior shoulder approach (Das Gupta’s approach) we completely excised the tumor along with partial removal of scapula. The whole specimen was sent for Histopathological examination. Biopsy confirmed the diagnosis of Chondroblastoma.

Patient had an uneventful post operative recovery with painless range of movements of shoulder.

**Conclusion**: Herein, we describe a case of a Chondroblastoma situated in the scapula of a 17 year-old female. This case is interesting because tumors of the scapula are rare and usually malignant. The first description of chondroblastoma was given by Codman in 1931, which designated it as “epiphyseal chondromatous giant cell tumor”. Jaffe and Lichtenstein differentiated in 1942 the chondroblastoma from giant cell tumors and established the term “benign chondroblastoma”

Chondroblastoma is a rare benign bone tumor, although metastases may occur. It accounts for less than 1% of all primary bone tumors. It usually presents in the second decade of life. At that age it is typically localised in the epiphyses of the long bones. Localization in flat bones is unusual. In the shoulder girdle, the proximal a more aggressive behaviour in the flat bones (Lodwick grade 1b or 1c) than in the long bones (usually Lodwick grade 1a or 1b). As a result, radiographic diagnosis of an atypical chondroblastoma is more difficult because of a variety of possible diagnoses, including benign and malignant lesions humerus is the area of predilection, only 16% of cases are found in flat bones, whereas the scapula- to our knowledge – has been involved in only fourteen cases.