

An Unusually Huge Giant Cell Tumor Of The Right Femur In A 30 Year Old Nigerian

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Citation

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Abstract

A thirty-year-old Nigerian male presented with huge mass in the lower 1/3 of the right thigh, including the knee joint area of five years duration; the patient observed a rapid increase in size, in the last 6 months. The swelling is associated with chronic dull aching pain and there were multiple shallow ulcers on the mass. The initial diagnosis was Osteosarcoma of the right Femur; however, the final histological diagnosis was giant cell tumor.

INTRODUCTION

Giant cell tumor of bones is a benign but often locally aggressive neoplasm which accounts for about 5% primary bone tumors and approximately 20% of all benign bone tumors¹. The tumors most often occur in the third and fourth decade, and affects females 1.3 to 1.5 times as often as males². More than 75% of these tumors are located near the articular end of long bones; being most common in the knees and wrist. It is believed that this may be related to the intense osteoclastic activity of bone remodeling in the metaphyseal-epiphyseal areas³.

We present a case of a huge giant cell tumor, measuring (42cm) in diameter of the right distal femur to demonstrate the ability of this tumor to grow to huge size, without metastasis.

CASE PRESENTATION

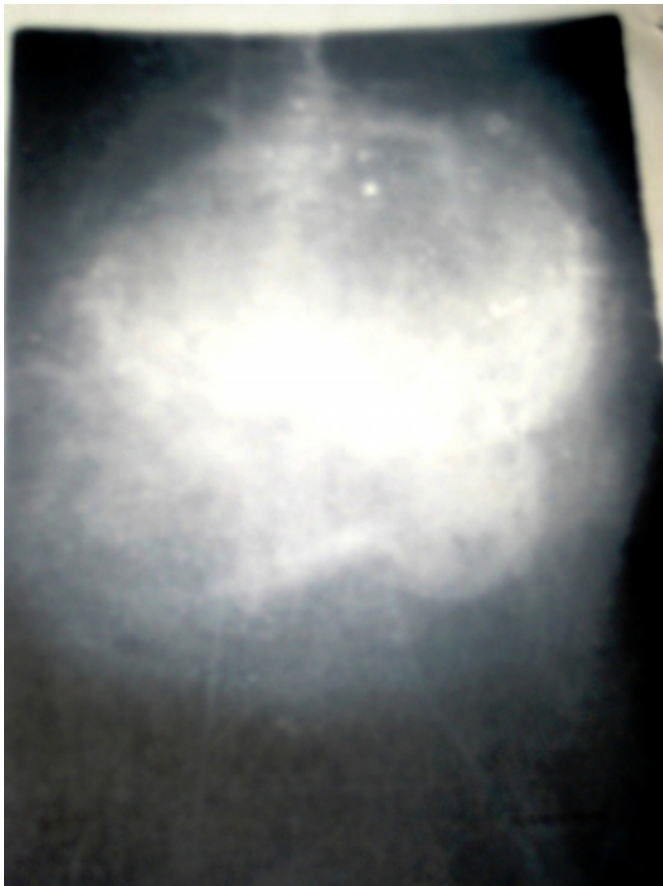
A 30 year old, Nigerian male, technician, presented on 12 July 1999 with a right knee joint swelling of five years duration, but noted an increase in the rate of growth 6 months before presentation.

He was pale and had bilateral pitting pedal edema. He had a mass in the right lower 1/3 of the femur measuring 42cm in diameter. The mass was firm, attached to the underlying bone, warm and tender to touch. The surgeon made a diagnosis of malignant bone tumor? Osteosarcoma.

The plain X-ray of the right knee joint, Fig. 1 demonstrated an expansive mixed osteolytic and osteoblastic lesion involving the distal metaphyseal-epiphyseal area of the right

femur. The margins were sclerotic and thinned. There was suggestion of multiple breaks in the cortical bone. A huge soft tissue mass overlying the knee joint was demonstrated. The knee joint space was distorted. The appearances were suggestive of malignant bone tumor, most probably osteosarcoma.

Figure 1



However, the histology diagnosis is that of giant cell tumor. The patient had wide excision of the tumor mass with prosthetic replacement. We have followed up the patients for 5 years without recurrence.

DISCUSSION

Giant cell tumor has a wide spectrum of behavior. The typical radiological feature is a zone of radiolucency situated immediately beneath the articular cortex, sited eccentrically near the articular end of long bones. Osteoclastoma does not contain calcification or ossification unless complicated by a fracture. However, as this case demonstrated, extensive soap

bubble pattern of calcification may be seen, in about 40% of cases². The tumor extension into the adjacent soft tissues does not necessarily imply malignant transformation, it is said to occur in about 50% of some series. Most cases of giant cell tumor in the developed countries, present when the tumor is about 20-30 mm, in contrast to our patient that presented when the mass became 42 cm in diameter.

In our environment, patients do visit traditional bone setters for ailments involving the limbs; this patient has visited the traditional practitioner over the years with worsening of the symptoms.

Malignant transformation can be inferred by a rapid change in size or character of the tumor on sequential radiographs⁵. Although, in this patient an increase in the rate of growth was noted 6 months previously, there was no histological evidence of malignant transformation.

Giant cell tumor (Osteoclastoma) usually presents between the ages of 20-40 years, as illustrated by this case. Giant cell tumor rarely metastasizes, when it does, it is usually to the lungs seen in about 2% of causes⁶.

A major problem of giant cell tumor is that it tends to recur after treatment. The treatment is wide and complete surgical excision in order to prevent recurrence.

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