

# MULTIFOCAL GIANT CELL TUMOR WITH DIFFERENT CLINICOPATHOLOGICAL BEHAVIOR

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*Abstract* — A 26 year old woman attended to our hospital with multifocal giant cell tumor in different sites, one in distal end of right radius with aggressive behavior and amputation of the mid forearm and the second in the head of the right humerus with benign and non aggressive clinical appearance.  
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*Key words:* Giant cell, multifocal, different behavior

## INTRODUCTION

Giant cell tumor is an eccentric lytic lesion in the epimetaphyseal area of the long bone frequently in distal radius, femur, tibia and humerus (1,2) with sometime malignant behavior for treatment of this lesion en bloc resection and bone graft; curettage and bone graft and some time amputation suggested (1-6).

Multifocal giant cell tumor is a relatively uncommon entity reported only in 1.2% of cases of giant cell tumor (2).

## CASE REPORT

A 26 year old woman presented with pain and tenderness slight swelling in right wrist radiography revealed an eccentric lytic lesion in the lower end of radius most consistent with a giant cell tumor (Fig. 1) at

admission biopsy specimen disclosed giant cell tumor.

Work up for hyperparathyroidism was negative. Curettage and bone graft performed X-Ray six months after operation showed evidences of tumor recurrence at the previous site (Fig. 2).

Shortly after an en bloc resection of the tumor and bone graft carried out and pathological examination again revealed classic giant cell tumor (Figs. 2,3,4,5).

Skeletal survey and Isotope Scan showed the hot spot in right shoulder. (Figs. 3,4,5,6,7). Radiographic study disclosed a destructive lesion in proximal humerus, biopsy revealed second giant cell tumor in right humerus (Fig. 6). Serum chemistries and parathyroid hormone were normal. X Ray and CT Scan of the lung and mediastinus was reported normal. The patient refused further surgical treatment 5 months later, range of motion of right shoulder was full and pain free and radiographic examination of the lesion surprisingly revealed signs of regression of the tumor in the form of decrease in tumor size and appearance of rim of sclerosis around the lesion. At 3 years follow up the patient was still asymptomatic and X-Ray showed further regression of the tumor (Fig. 8,9,10).

## DISCUSSION

The multifocal giant cell tumor is a relatively rare entity. Reported only 1.2% of cases of giant cell tumor. Interesting feature of this case is different clinicopathological behavior in the same patient one with aggressive behavior ultimately leads to amputation of the limb and other with a self limited benign course (1,2).

## Acknowledgment

I appreciate the kind cooperation of professor shams shariat for providing the pathological reports and pictures.

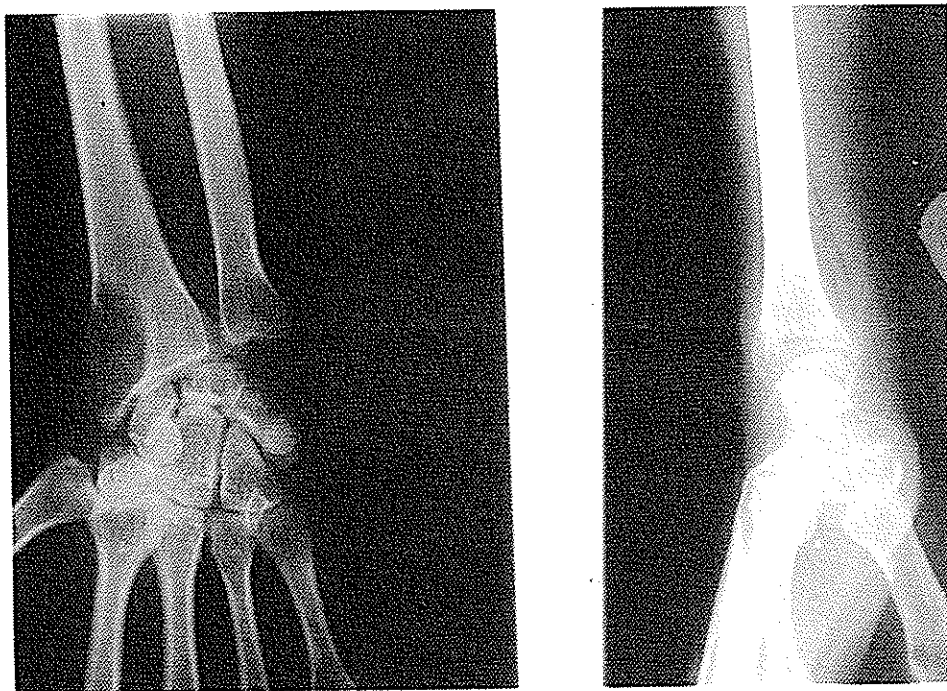


Fig. 1. Giant cell tumor end of radius



Fig. 2. Six months after bone graft

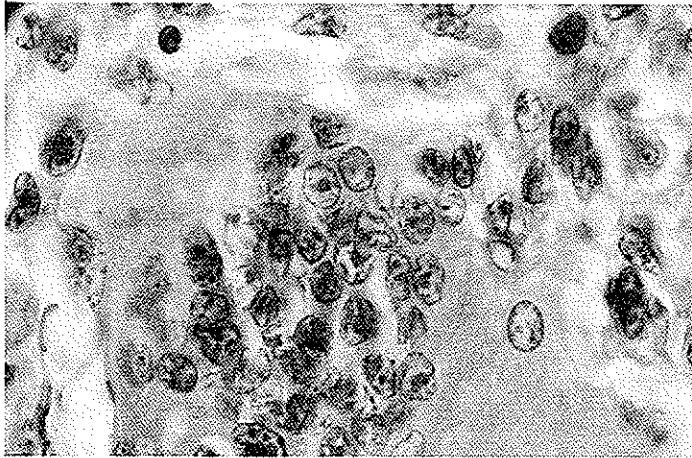


Fig. 3. Pathological picture

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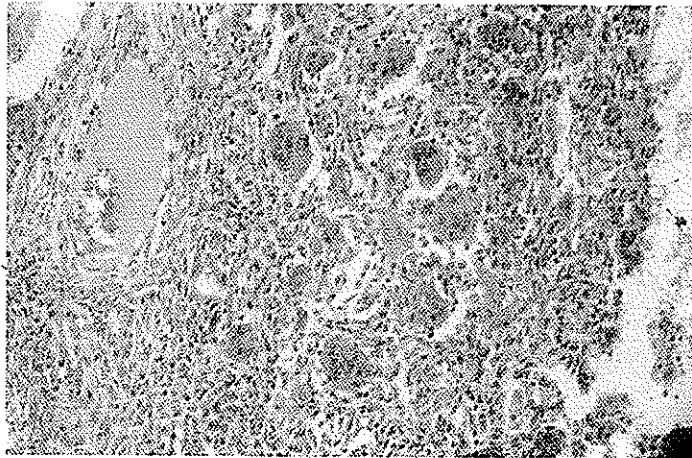


Fig. 4. Pathological picture

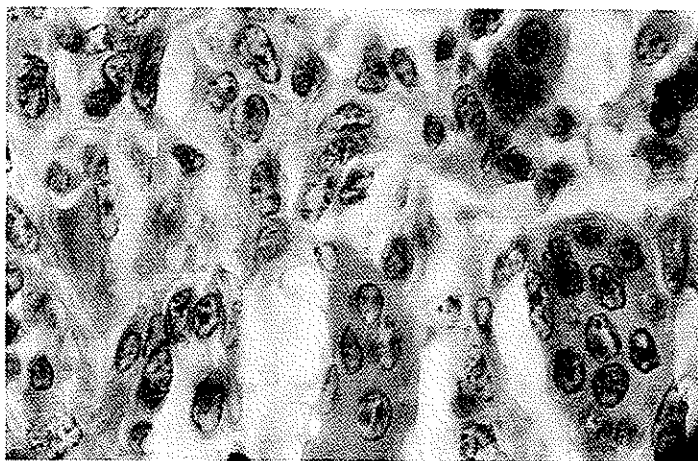


Fig. 5. Pathological picture

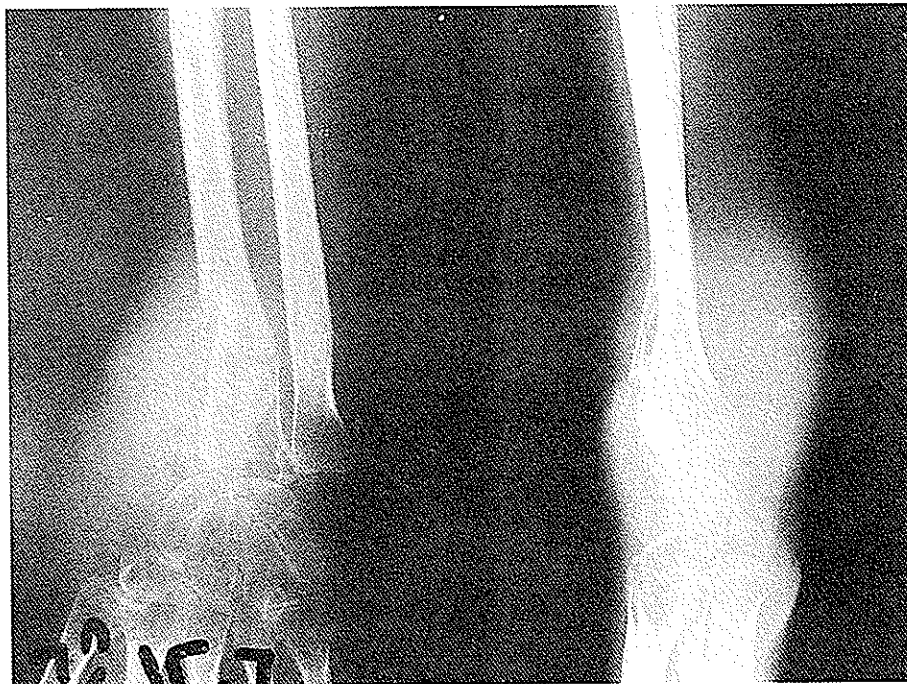


Fig. 6. Nine months following

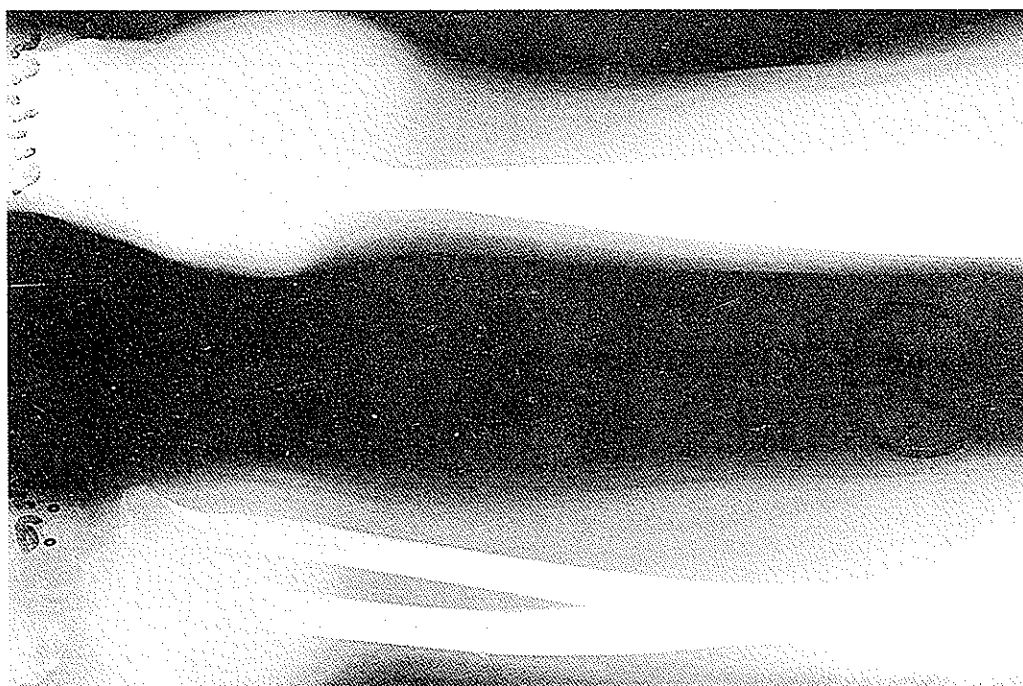


Fig. 7. A year following Bone graft (recurrence of tumor)

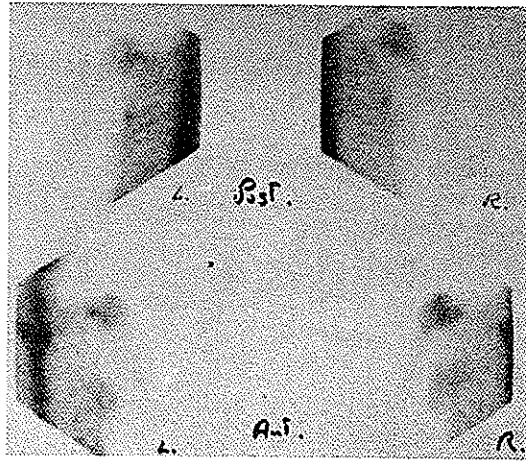


Fig. 8. Isotope scan hot spot right shoulder

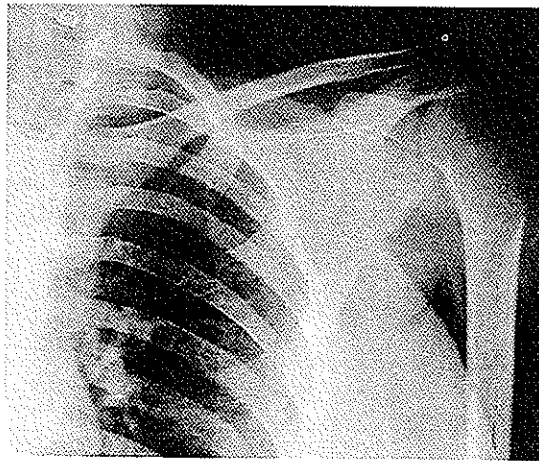


Fig. 9. Giant cell tumor of right humerus head

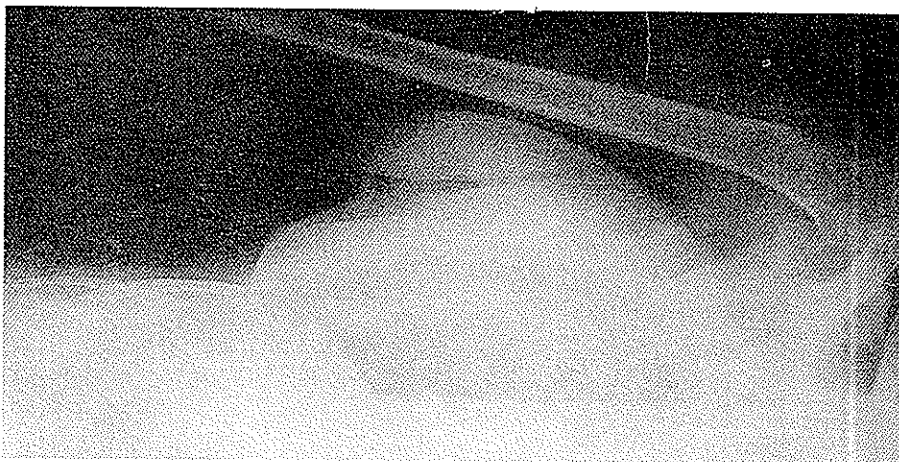


Fig. 10. 3 years follow up showing regression of the tumor

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