Giant-cell tumor of proximal radius: resection with osteoarticular allograft reconstruction

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INTRODUCTION

Giant-cell tumors are locally aggressive osteolytic benign tumors of long bones of epiphyseal region, characterized by multinucleated giant cells, commonly occurring in adults aged 20–40 years. Most common location is distal femur, proximal tibia and distal radius. Different treatment options are curettage with bone graft, resection with arthrodesis, reconstruction, radiation and chemotherapy. Recurrence rates are <30% after curettage and <5% after resection. Reconstruction can be difficult.

AIM

We are reporting a case of giant cell tumor of left proximal radius in a 47-year-old female.

METHOD

We report the clinical, radiological and histological presentation of single case of giant cell tumor of proximal radius, as well as surgical treatment.

RESULTS

A 47-year-old female presented to our emergency department, in May 2016. She complaint about sudden pain and swelling over the anterolateral aspect of left elbow, without trauma.

Image studies showed a pathologic fracture, with a expansile lytic metadiaphyseal lesion involving the proximal aspect of the left radius and the radial head (Fig. 1 and 2). Biopsy confirm the diagnosis of giant-cell tumor.

We perform an osteoarticular allograft reconstruction of the proximal aspect of the radius, after resection of a giant-cell tumor (Fig. 3).

Six months after surgery, the patient had satisfactory joint articulation range of motion, and strength, with no signs of hardware or graft failure. At this time the most important limitation is about 20º of supination deficit. The joint remained stable without signs of recurrence.

CONCLUSIONS

Osteoarticular allograft reconstruction is an acceptable method of reconstruction of the proximal aspect of the radius. With this treatment option we can minimize the risk of tumor recurrence and restore joint function.

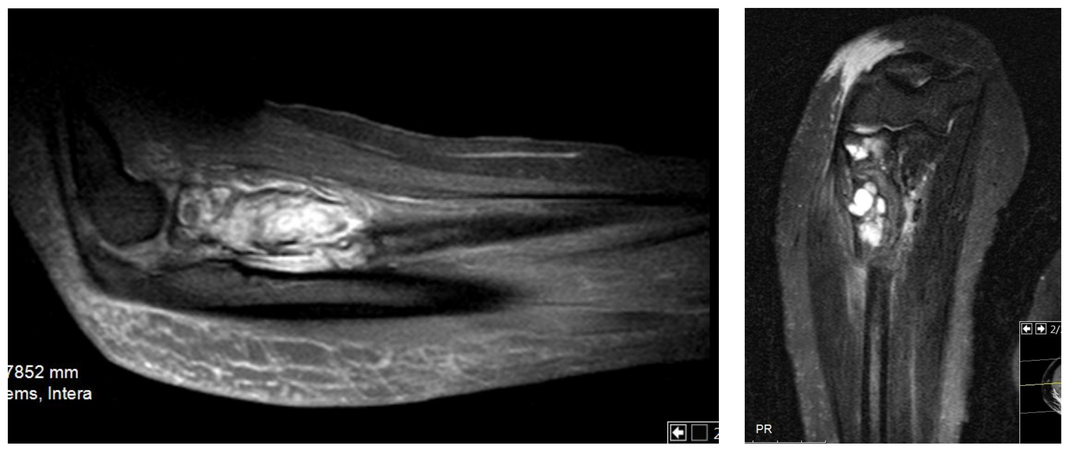

Fig. 2
MRI showed a primary lytic lesion without invasion, compatible with aneurysmal bone cyst or giant cell tumor.

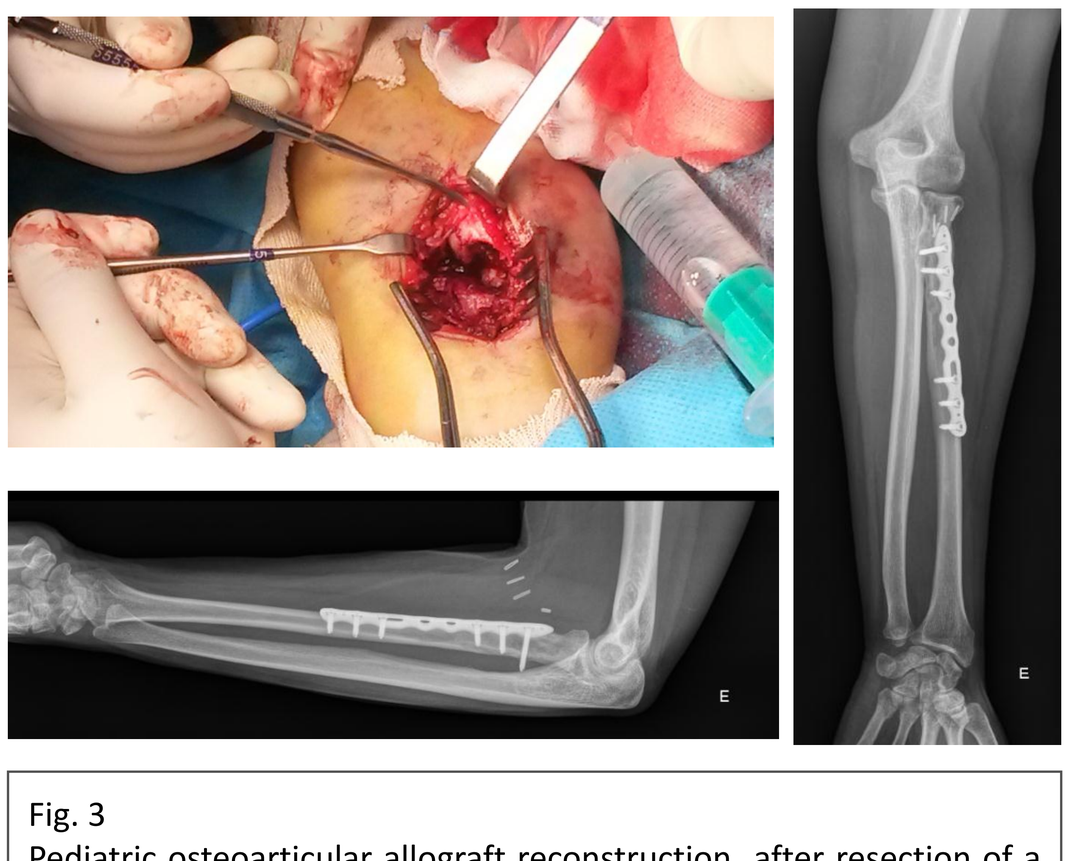

Fig. 3
Pediatric osteoarticular allograft reconstruction after resection of a giant-cell tumor. Fixation with plate and screws.

Fig. 1 Image study showed a lytic lesion (57X18 mm), a thin cortical with pathologic fracture, but without a suspicious periosteal reaction.

REFERENCES
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