A case of Giant cell tumour of distal femur

case report

- 50 Year old male complaint of pain and swelling at left distal femur since 3 months
- No H/O any trauma and fall
- O/E Tenderness present at left knee joint at its lateral aspect
- Local rise of temperature present
- Rom restricted and painful
- No distal neurovascular deficit
- No any other comorbidities

PRE OP XRAY:LYTIC LESION IN LATERAL CONDYLE FEMUR



MRI confirms Lytic lesion involving Distal femur lateral condyle



Radiological findings

- a well defined 4x 3 x 3 Radiolucent Eccentric Lytic lesion situated at the end of femur and bounded by subchondral bone plate
- Cortex is usually thinned out and bulged , soap bubble appearance is seen in the centre
- Adjacent soft tissue involvement is also seen s/o aggressive nature of tumour

• Diagnosis- ? Giant cell tumour of distal femur

- Surgery done : extensive curettage of the tumour , adjuvant treatment (phenol and high speed burr was used) and reconstruction with bone graft , bone cement and femur later condyle plate .
- [sandwich technique]- this technique was done to protect the articular cartilage and meniscus, thus it is a joint salvage technique with good survival rate, minimal complications and good functional outcome

Adjuvant treatments

- Phenol
- High speed burr
- hydrogen peroxide







Intra op findings





• Biopsy report was consistent with the radiological findings

Post op xray immediate post op



Post op follow up and protocol

 knee range of motion and partial weight bearing was started immediately followed by full weight bearing after 3 months.

At 3 month follow up



6 month follow up No recurrence seen



Post op 6months clinical follow up





Post op : patient is carrying out his daily activities and walking full weight bearing





Discussion

- Giant-cell tumour, which represents 5 per cent of all primary bone tumours, is a lesion of uncertain origin that appears in mature bone, most commonly in the distal femur, proximal tibia, proximal humerus and distal radius, though other bones also may be affected. It is hardly ever seen before closure of the nearby physis and characteristically it extends right up to the subarticular bone plate. Rarely, there are multiple lesions.
- There is a 40- 50 % of recurrence among patients in whom adjuvant treatment was not advocated
- And with adjuvant treatment recurrence rate drops to 10-20 %
- Pathological fracture is seen in 10-15 % cases.

Pathology

Tumour has a reddish , fleshy appearance, aggressive lesions have a poorly defined edge and extend well into the surrounding bone .

Histologically the striking feature characterized by the presence of multinucleated giant cells (osteoclast-like cells). However, if malignant transformation does occur, it is likely to metastasize to the lung



Thank you