

DISTAL RADIUS GIANT CELL TUMOR TREATED WITH EXCISION AND RECONSTRUCTION WITH FIBULAR AUTOGRAFT

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PRESENTATION

- A 65/F complaints of right wrist pain and swelling since 2 yrs.
- Patient was symptomatic since 2yrs with insidious onset pain, which was mild, dull aching, persistent and associated with gradually progressive swelling over the same area.

ON EXAMINATION OF WRIST

- Swelling over the distal 3rd of right forearm with localized tenderness, bony hard consistency .



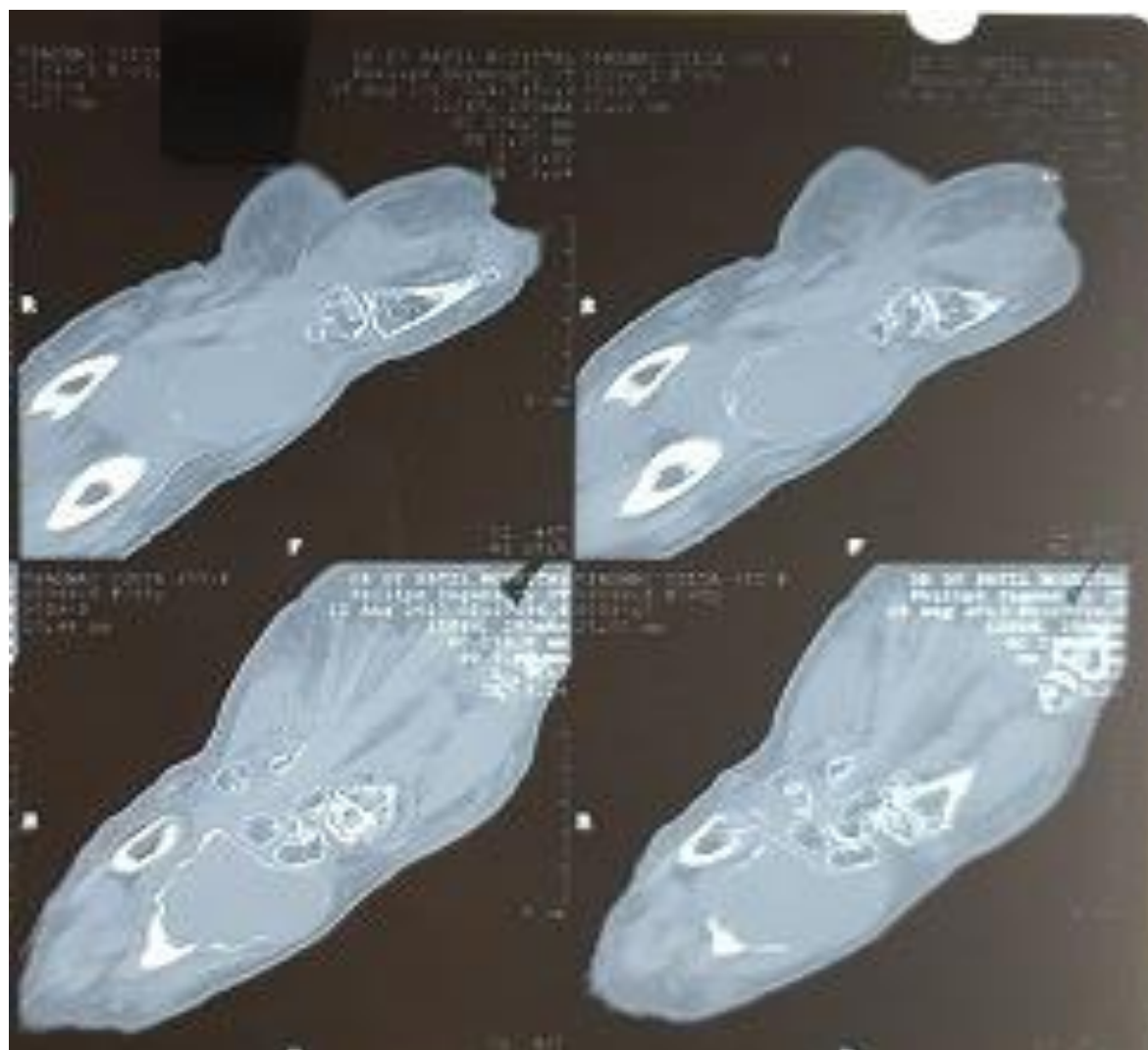
INVESTIGATION

- X RAY

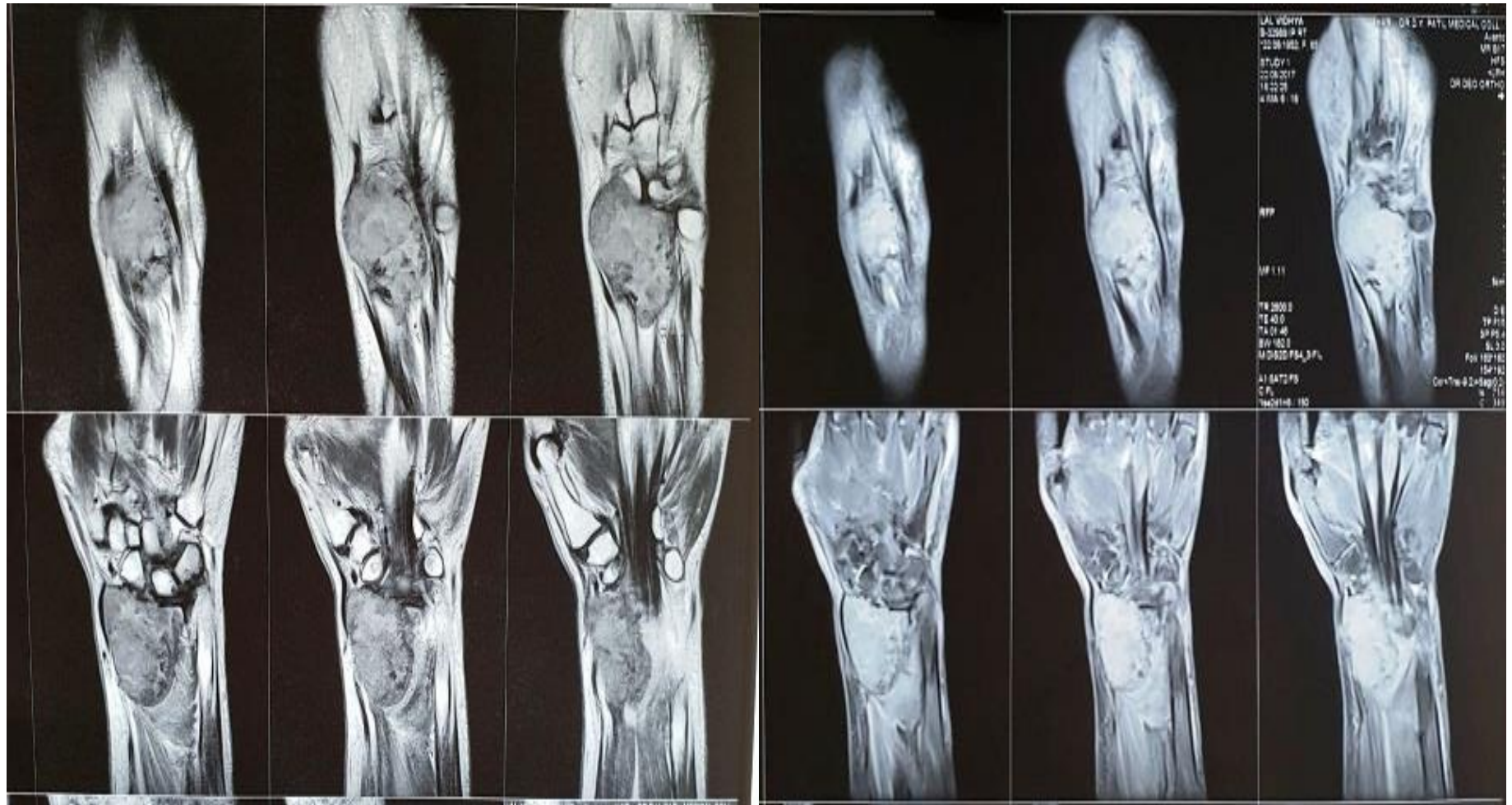


COMPUTED TOMOGRAPHY





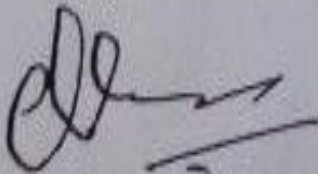
MRI



IMPRESSION

- A large well defined expansile mass lesion involving lower epiphyseal-metaphyseal region of distal end of radius with cortical erosions along medial portion with associated soft tissue component in the lower forearm along radius with extension and involvement of pronator teres muscle adjacent soft tissue component. Displacement of the extensor tendons seen anteriorly. Major neurovascular bundle is normal
- Features are mostly representing aggressive primary bone neoplas
- : 1) Giant cell tumor with malignant transformation 2) Metastasis.

Suggest -histopathology confirmation

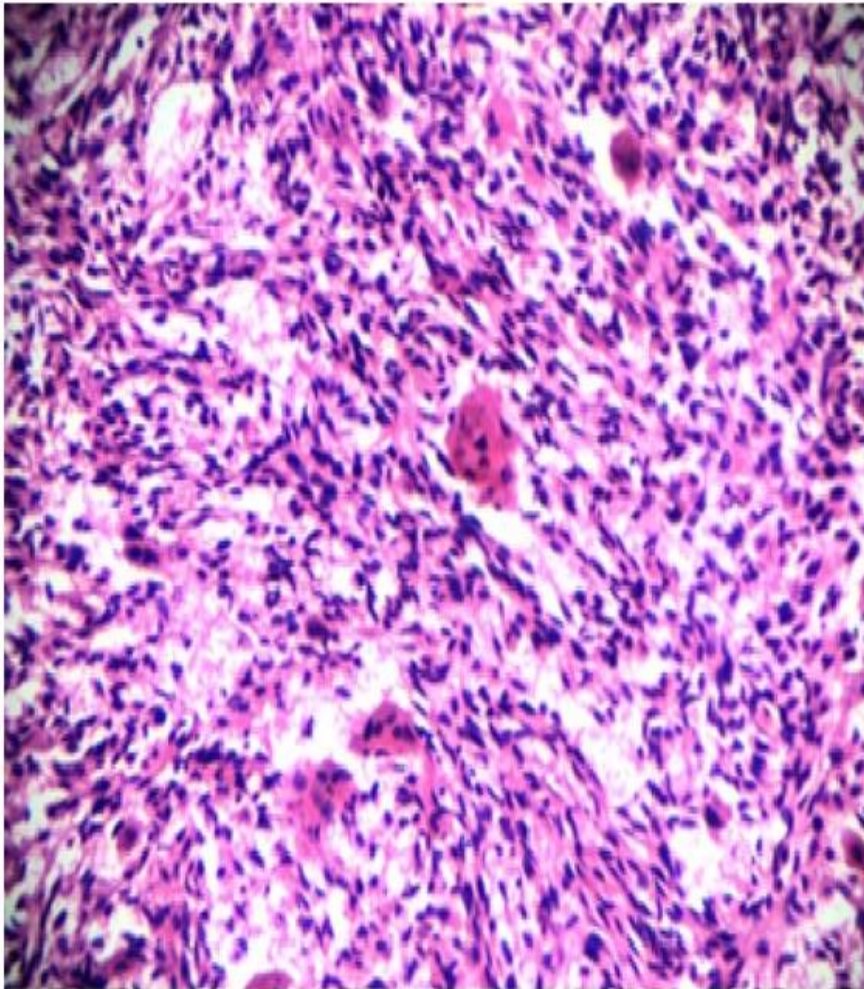


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Date: 24-Aug-2017 11:11:09

Biopsy





- Multinucleated Giant cell in the stroma of mononuclear stromal cell.

B/6728/18

multiple serial sections studied shows a bony trabeculae with some part of bone marrow. Also seen are numerous Giant cells & numerous nuclei. There is small foci of inflammatory infiltrate.
No evidence of granuloma in studied sections.

Impression:- features suggestive of Giant cell tumor.

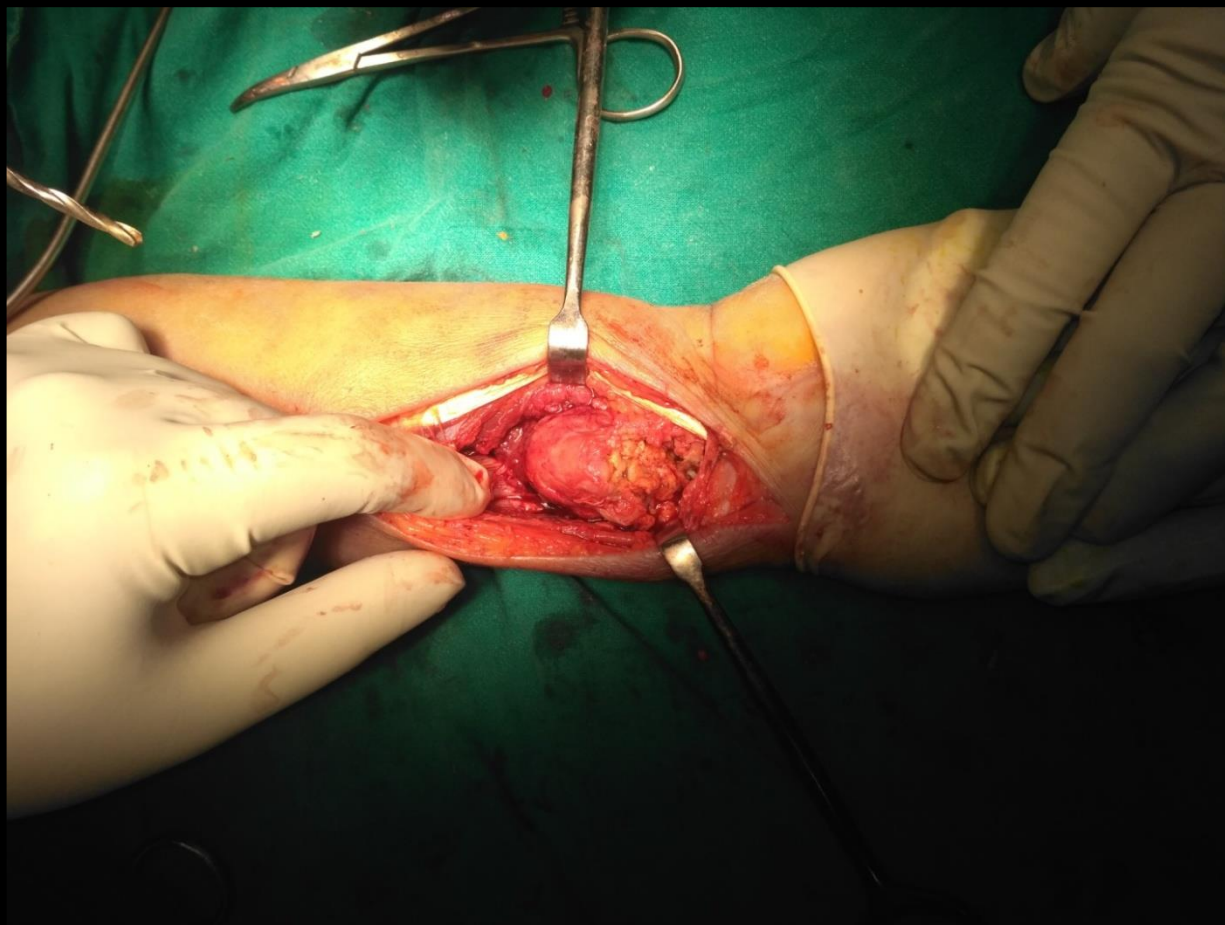
Biopsy S/O Giant cell Tumor.

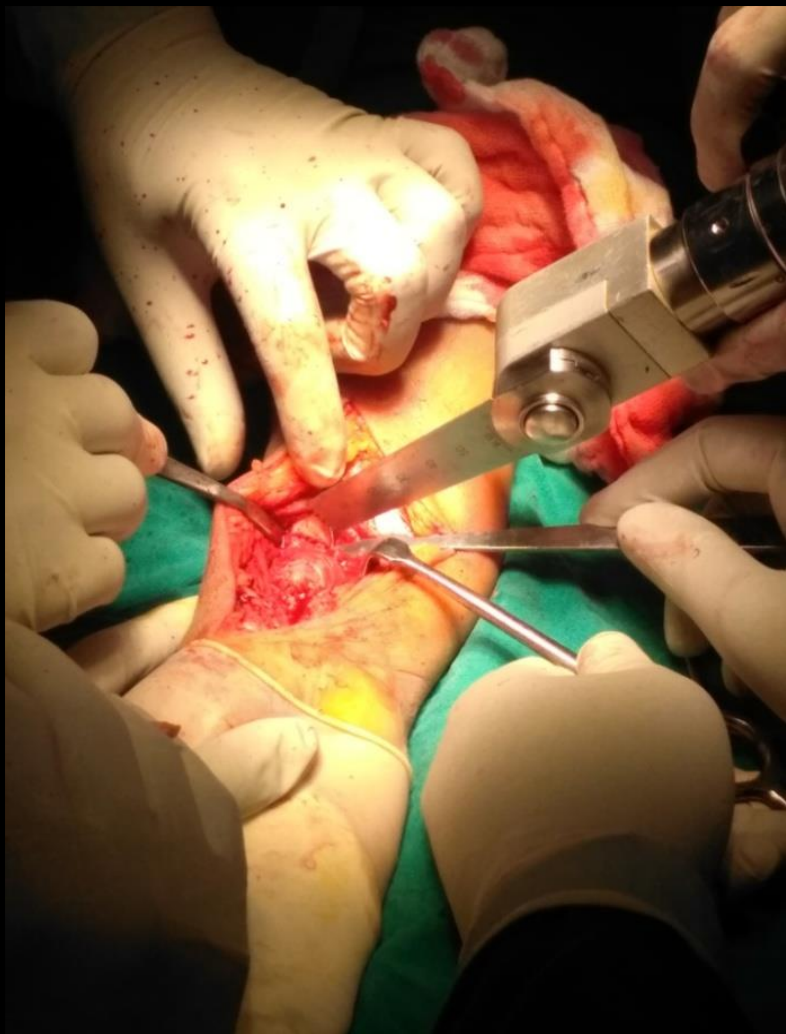
TREATMENT:

- Patient planned for wide excision of the tumor and reconstruction with ipsilateral proximal end fibula autograft.

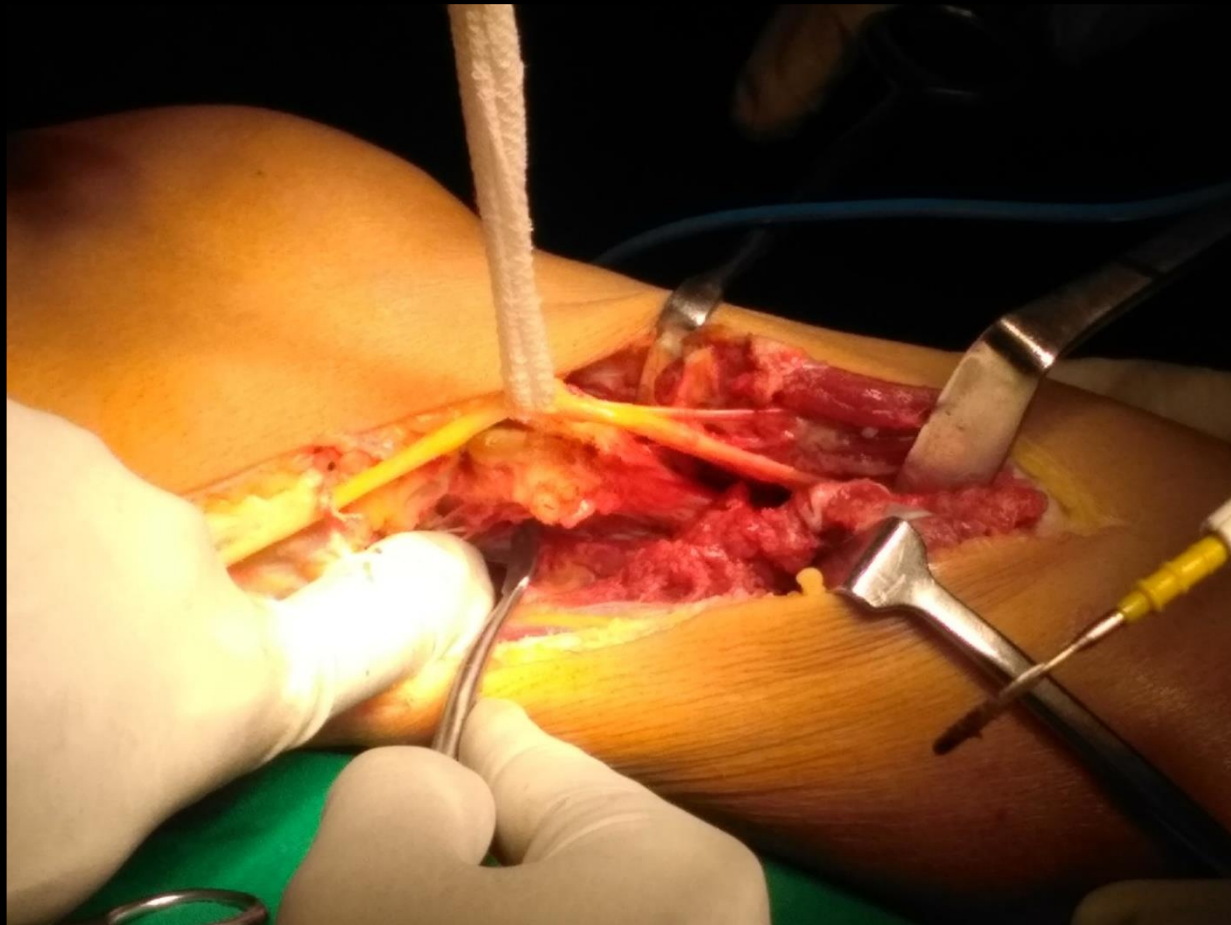
INTRA OP











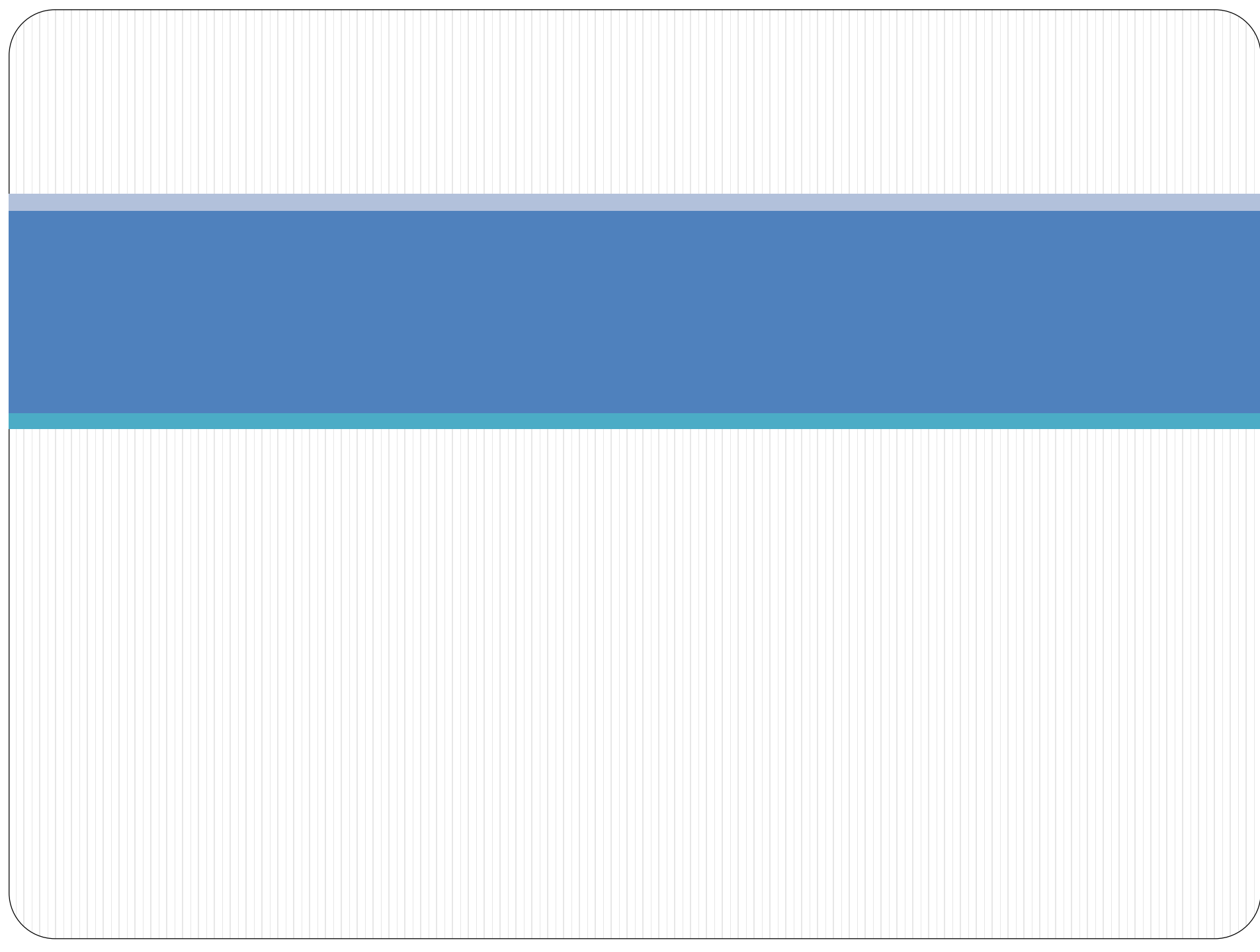
POST OP X RAY



POST OP 6MONTHS FOLLOWUP







GCT- An Overview

- Distinct neoplasm arising from non bone forming supporting connective tissue of marrow.
- Epiphyseal region (metaphyseal in immature skeleton)
- 20-40yrs age group.
- F>M (1.5:1)
- 5% of primary and 20% of benign bone tumor.
- Solitary ,benign lesion which is locally aggressive
- Distal femur>proximal tibia>distal radius

ENNEKING : STAGING OF GCT

STAGE 1	STAGE 2	STAGE 3
<i>LATENT (10-15%)</i>	<i>ACTIVE(70-75%)</i>	<i>AGGRESSIVE(10-15%)</i>
<i>ASYMPTOMATIC</i>	<i>SYMPTOMATIC</i>	<i>SYMPTOMATIC</i>
<i>DISCOVERED INCIDENTALLY</i>	-----	<i>RAPIDLY GROWING MASS</i>
<i>MAY CAUSE PATHOLOGICAL #</i>	<i>OFTEN ASSOC. PATHOLOGICAL #</i>	
<i>INTRACAPSULAR</i>	<i>INTRACAPSULAR</i>	<i>EXTRA CAPSULAR</i>
<i>WELL DEFINED MARGINS</i>	<i>HAS EXPANDED/ THINNED OUT CORTEX</i>	<i>CORTICAL BREAKOUTWITH SOFTT-ISSUE EXT.</i>
<i>SCLEROTIC RIM ON XRAY/CT</i>	<i>ACTIVE ON BONE SCANS</i>	<i>ACTIVTY ON BONE SCAN EXTENDS BEYOND LESION ON XRAY</i>

DISCUSSION

- High rate of local recurrence.
- They should be treated more aggressively.
- Grade III lesions can be treated with curettage and grafting when the tumor does not invade the wrist, destroy less than 50% of the cortex.
- Though Functional outcome is better with curettage and bone grafting but risk of local recurrence is high as compared with excision and grafting.