



KARNATAKA RADIOLOGY EDUCATION PROGRAM

CASE PRESENTATION

Case of Aneurysmal Bone cyst
and Osteochondroma

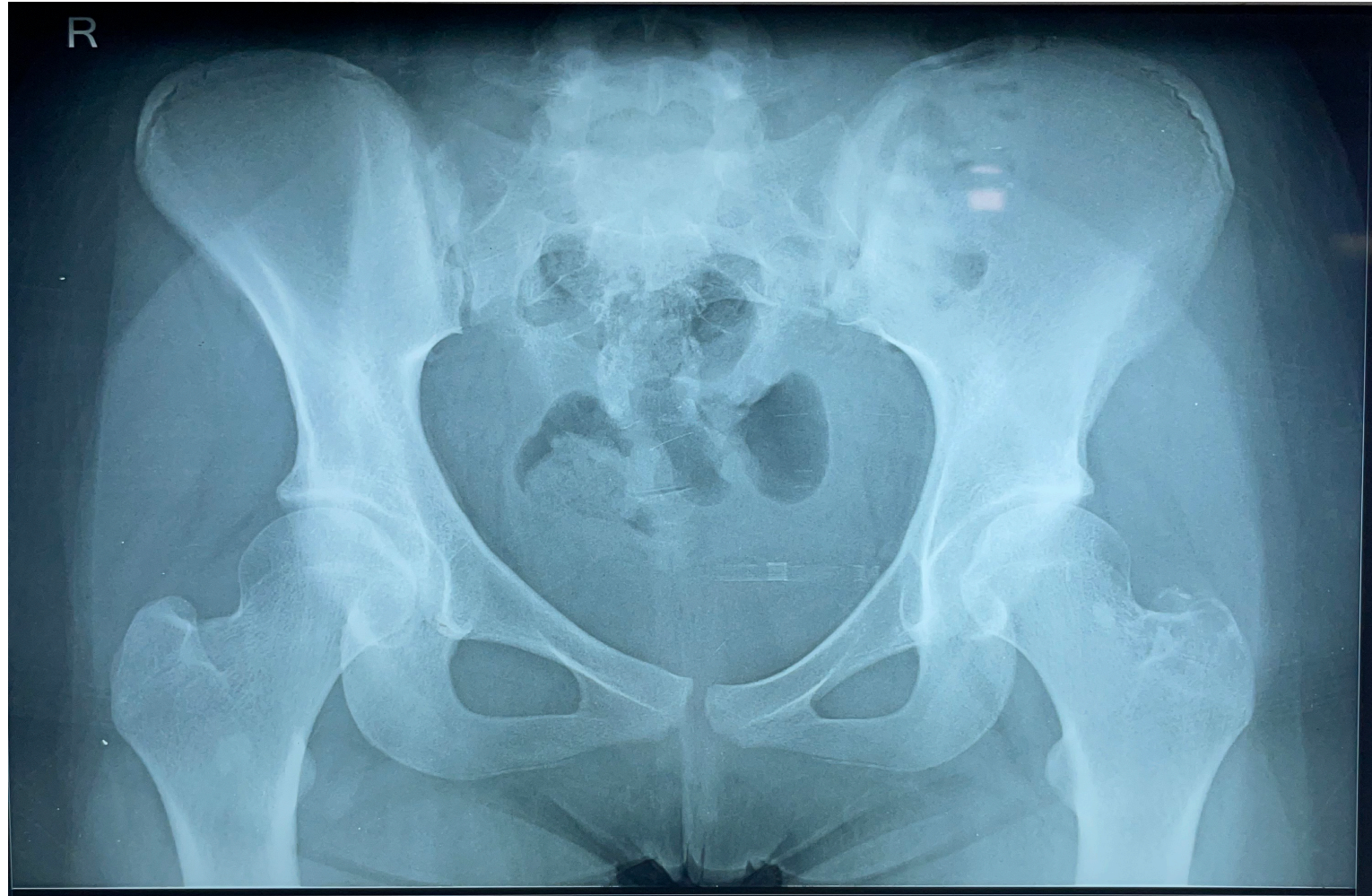
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J.N.MEDICAL COLLEGE ,BELAGAVI
PRESENTER:DR. AHAN DIXIT

CASE 1

CLINICAL HISTORY

- 16 year old female came with history of slip and fall 1 month ago , Site Of Impact- left hip and complaints of pain in the left hip since 2 weeks to KLE's Dr Prabhakar Kore Hospital & Research Centre
- The pain increased on walking long distance and was associated with restricted range of motion of left leg
- No history of fever

RADIOGRAPH



RADIOGRAPH FINDINGS

- This is an AP radiograph pelvis of a 16 yr old female showing an
- Eccentric, expansile , geographical lytic lesion with few areas of sclerosis
- In the greater trochanter of left femur , epi-metaphyseal in location
- Narrow zone of transition
- Cortical thinning in the posterosuperior aspect with a suspicious breach
- No peri-osteal reaction, soft tissue component or matrix mineralization can be seen
- Joint space is maintained



AXIAL



SAGGITAL

CT FINDINGS

- Well defined expansile lytic hypodense lesion noted with cortical thinning & focal area of cortical defect in the posterior aspect of the lesion in the greater trochanter of femur on left side



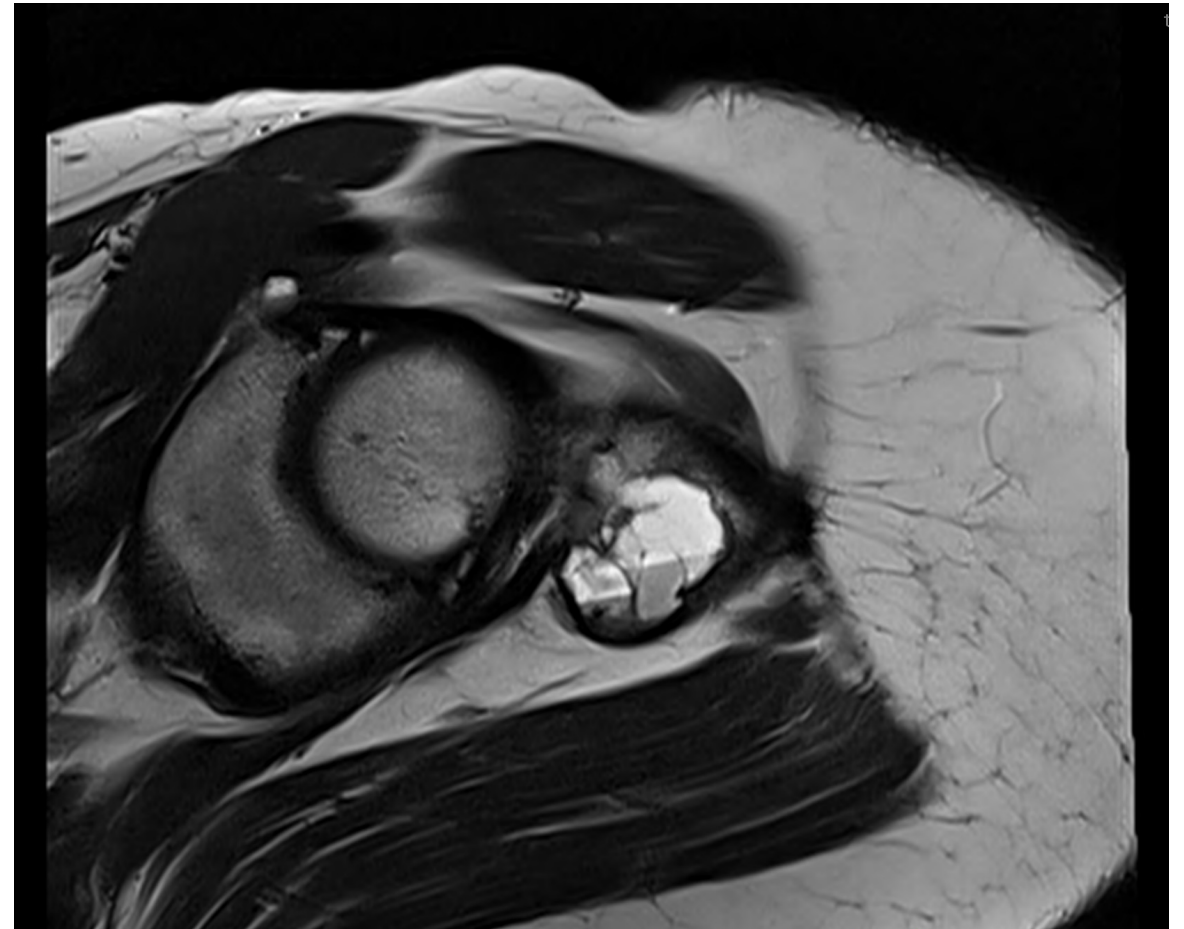
T2 STIR CORONAL



PD FATSAT CORONAL



T1 CORONAL



T2 SAGITTAL LEFT HIP

MRI FINDINGS

- There is seen a well defined expansile T1 hypointense, T2 and PD FATSAT, STIR hyperintense lesion with fluid-fluid levels in the greater trochanter of femur on left side

DIFFERENTIAL DIAGNOSIS

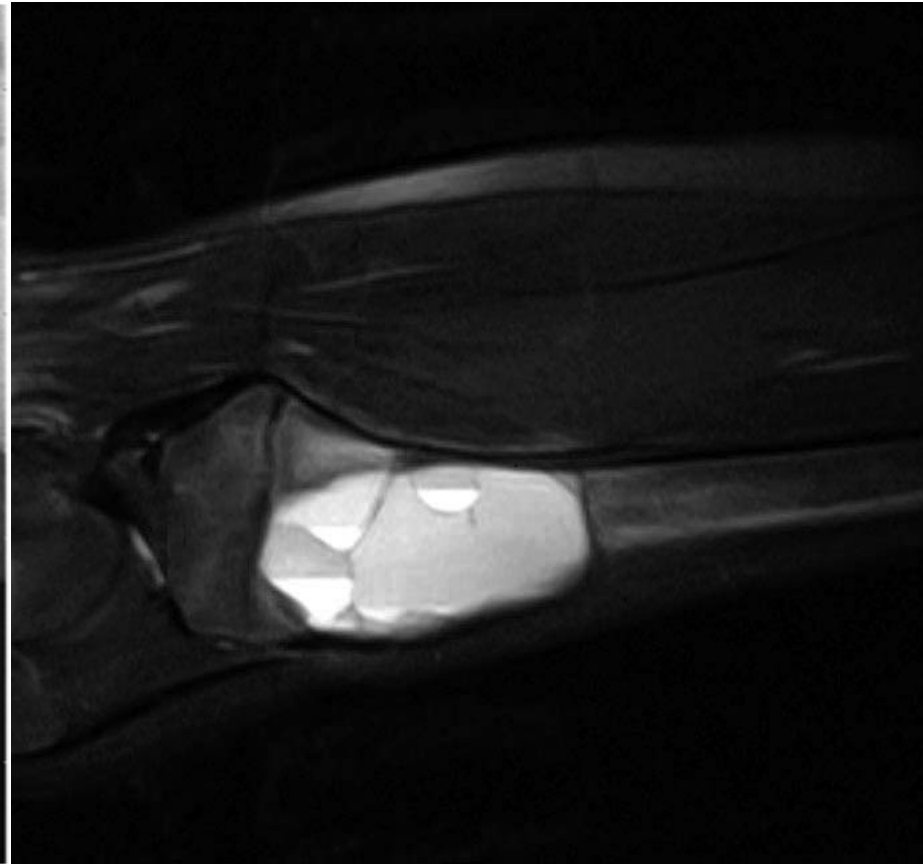
- Aneurysmal bone cyst
- Giant cell tumor / osteoclastoma
- Telangiectatic osteosarcoma
- Chondroblastoma

ANEURYSMAL BONE CYST

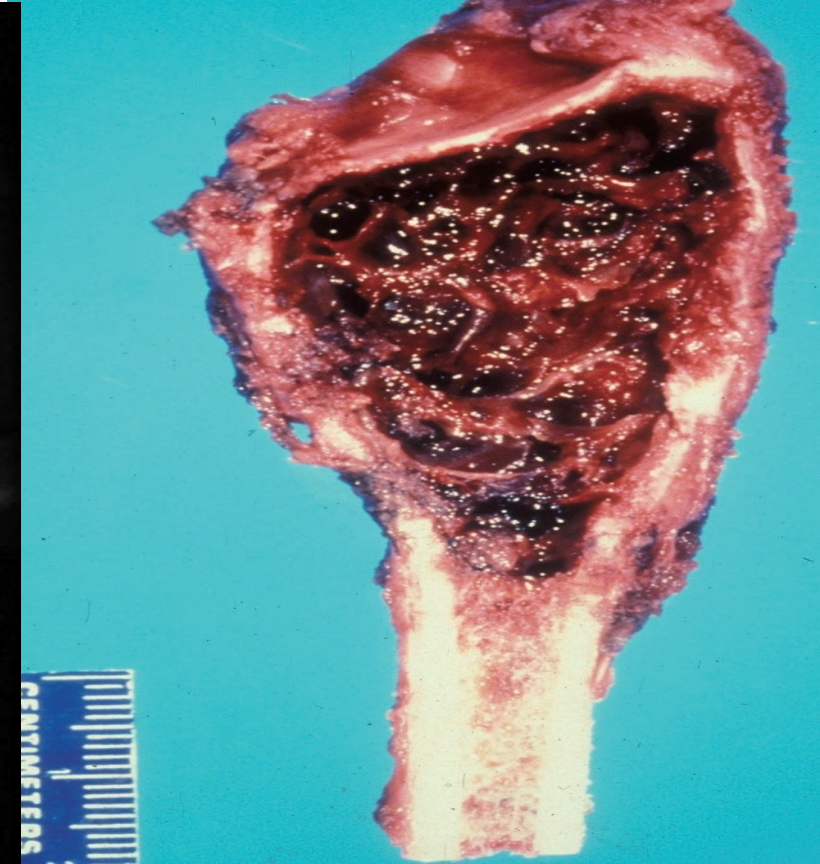
POINTS FOR	POINTS AGAINST
Location : Epi-metaphyseal lesion	
Age group: 10-20 yrs	
General appearance: Eccentric ,expansile lytic lesion with thin shell like septations, with a sclerotic rim	
Type of destruction and transitional zone :Geographical with Narrow zone of transition(benign)	
Cortical thinning	Cortical breakthrough / cortical breach
On MRI: Fluid-Fluid levels can be seen	



ANEURYSMAL BONE CYST
IN THE RIGHT PROXIMAL
FEMUR



*MRI SHOWS AN EXPANSILE
WELL-DEMARCATED CYSTIC
LESION OF THE PROXIMAL
TIBIA WITH FLUID-FLUID
LEVELS.*



*ABC involving tibia,
showing an expansile
lesion with multiple
blood-filled cystic spaces*

Giant cell tumor

POINTS FOR	POINTS AGAINST
Location : Epi-metaphyseal lesion	Age group : < 20 years
Eccentric , expansile, geographic lytic lesion with thinning of cortex with internal septations	Narrow zone of transition(benign)
On MRI: Fluid-Fluid levels can be seen	Few area of peripheral sclerosis

Telangiectatic osteosarcoma

POINTS FOR	POINTS AGAINST
Location: Epi-metaphyseal lesion	Sclerotic rim
Bone involved : Femur	Narrow zone of transition(benign)
General appearance : Geographical expansile lytic lesion	No periosteal reaction, No soft tissue component
On MRI: Fluid-Fluid levels can be seen	
Cortical breach/ breakthrough	

CHONDROBLASTOMA

POINTS FOR	POINTS AGAINST
Age group : 10- 25 years	X ray and CT: No chondroid matrix (calcification)seen
Location : Epi-metaphyseal lesion	
Eccentric , geographic lytic lesion with thinning of cortex and marginal sclerosis	
Narrow zone of transition(benign)	
On MRI: Fluid-Fluid levels can be seen	

FOLLOW UP

KLES DR. PRABHAKAR KORE HOSPITAL MEDICAL RESEARCH CENTRE NEHRU NAGAR, BELAGAVI-590010		QR CODE		MC/2352	
LABORATORY REPORT					
Patient Name	: MISS SANVI VISHAL MANDEKAR	IP / OP No	: 10151110/7841111	Gender	: Female
Ordered Loc	: ORTHOPAEDIC II G+2 1223 Bed No: ORTH12	Age	: 16 Y 0 M 7 D	Vch No	: 10248
Referred By	: Dr. ORTHOPEDICS B UNIT	Collection Dttm	: 09/05/2025 05:01 PM	Reported On	: 12/05/2025 12:29 PM
Class	: General - Hospital				
Current Loc	: ORTHOPAEDIC II G+2 1223 ORTH12				
Sample No	: 25272402				
HISTOPATHOLOGY					
Investigations	Result	Method	Unit	Reference Range	
Sample Type : GENERAL					
BIOPSY NO:	2524/25				
SITE:	Left proximal femur mass				
GROSS:	Received multiple grey black to grey brown soft tissue pieces of varying sizes.				
MICROSCOPY:	Sections studied from the biopsy in left proximal femur shows osteoclastic giant cells admixed with stromal cells along with bony spicules and skeletal muscle fibres.				
IMPRESSION *	Left proximal femur mass (biopsy) : Features suggestive of Aneurysmal bony cyst.				
NOTE : Slides and Blocks will be saved for 10 years, specimen will be preserved for 3 months if not fully embedded.					
—End Of Report—					

CASE 2

CLINICAL HISTORY

- 19 year old female came with complaints of pain in the left knee since 2 years to KLE's Dr Prabhakar Kore Hospital & Research Centre
- No history of fever
- No history of DM/HTN

RADIOGRAPH FINDINGS



RADIOGRAPH FINDINGS

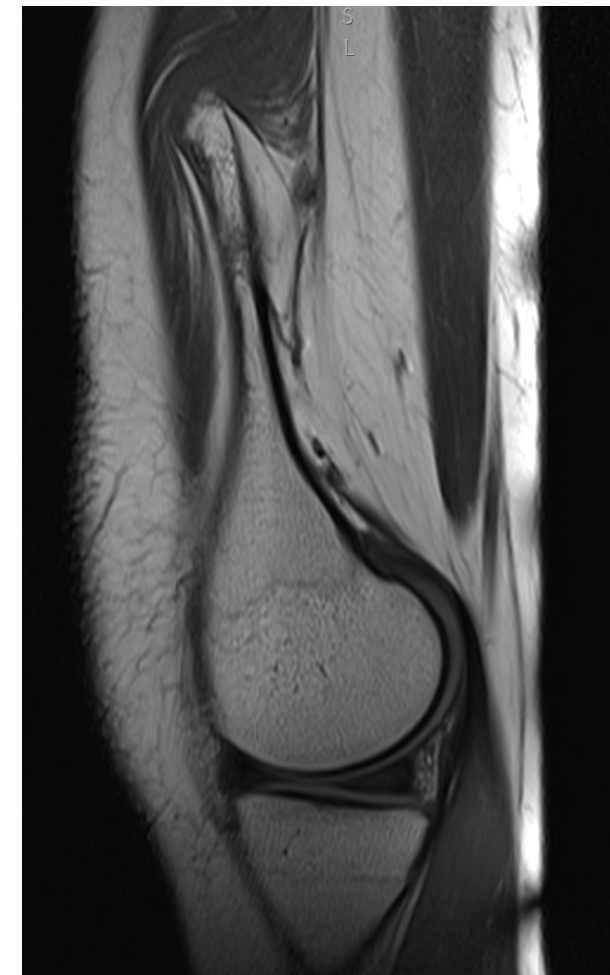
- This is an AP radiograph of both knees of a 19 yr old female showing
- Pedunculated lesion
- Well defined margins with intact cortex, continuous with the medullary cavity
- A bony exostosis along the medial side of left femur in the metaphysis growing away from the knee joint
- No peri-osteal reaction, soft tissue component can be seen
- Joint space is maintained



T2 STIR CORONAL



PD FATSAT CORONAL



T1 SAGITTAL

Mri findings

- Bony exostosis along the medial aspect of left femur continuing with the medullary cavity of the femur, with the growth protruding away from the knee joint with a cartilaginous cap (approximately measuring 8.9 mm)

DIFFERENTIAL DIAGNOSIS

- Osteochondroma
- Bizarre Parosteal Osteochondromatous Proliferation (BPOP / Nora's Lesion)

Osteochondroma

POINTS FOR	POINTS AGAINST
Age group: < 20 yrs	
Metaphyseal in location	
Elongated stalk, projecting away from the bone with cartilaginous cap	
Continuous with the medullary cavity	

Bizarre Parosteal Osteochondromatous Proliferation (BPOP / Nora's Lesion)

POINTS FOR	POINTS AGAINST
Age group: 20-30 yrs	More common in hands and feet
	Cartilaginous cap is not seen in BPOP
	Lesion is continuous with the medullary cavity
	No periosteal reaction/ soft tissue involvement

Thank you