



2025

KARNATAKA RADIOLOGY EDUCATION PROGRAM

CASE PRESENTATION

CASE OF PERTHES DISEASE OF HIP JOINT

**MENTOR: DR.R V MALI SIR
KAHER UNIVERSITY
J.N.MEDICAL COLLEGE ,BELAGAVI
PRESENTER:DR. SIVA SOORYAA**

CLINICAL HISTORY

- A 7 year old male child
 - c/o right hip pain x 3 months
 - No restriction of movements
 - Not associated with fever/swelling
 - P/h/o fall x 4 months back
- Was referred for Xray of bilateral hip joint

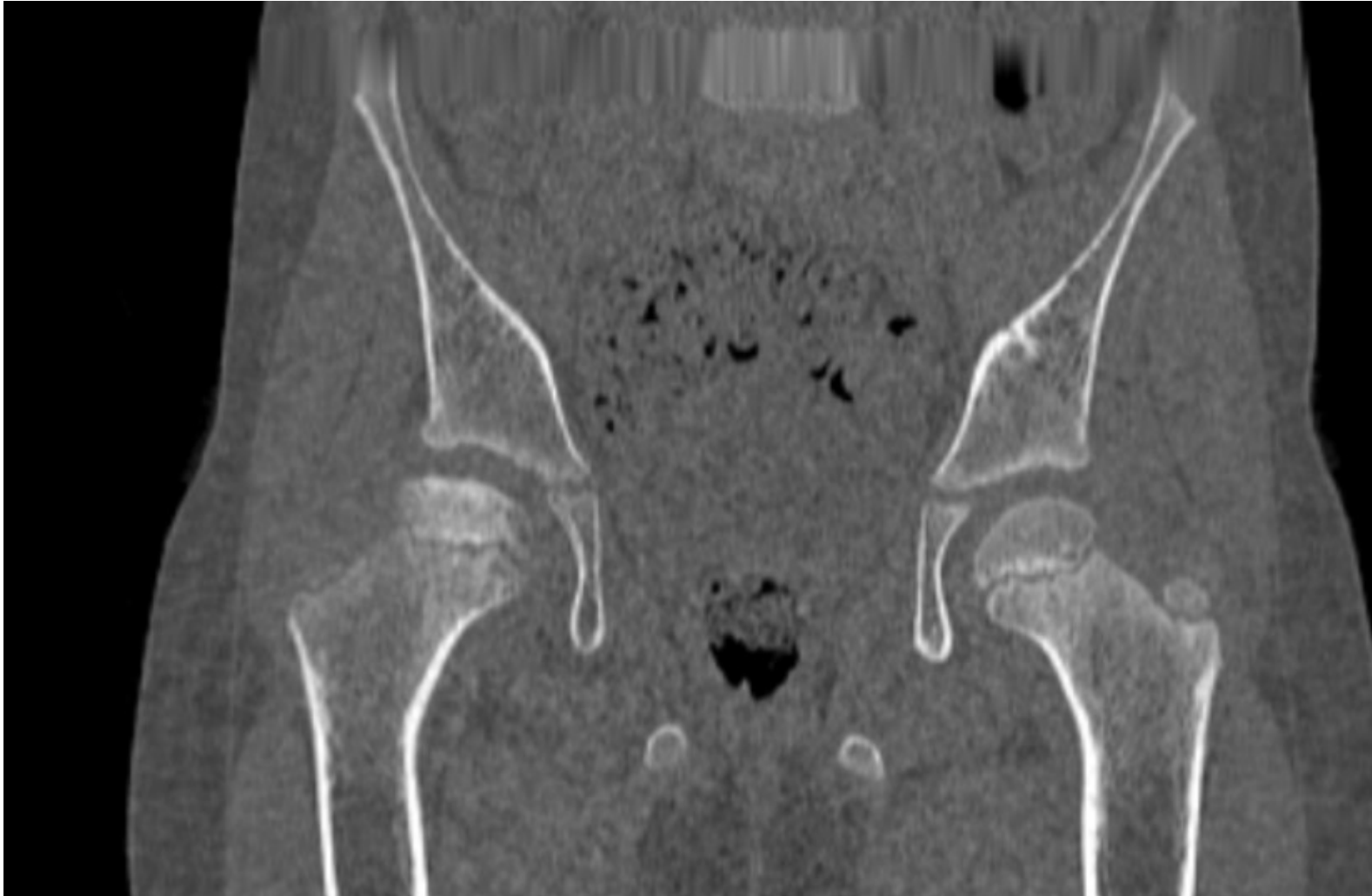
X RAY BOTH HIP JOINT



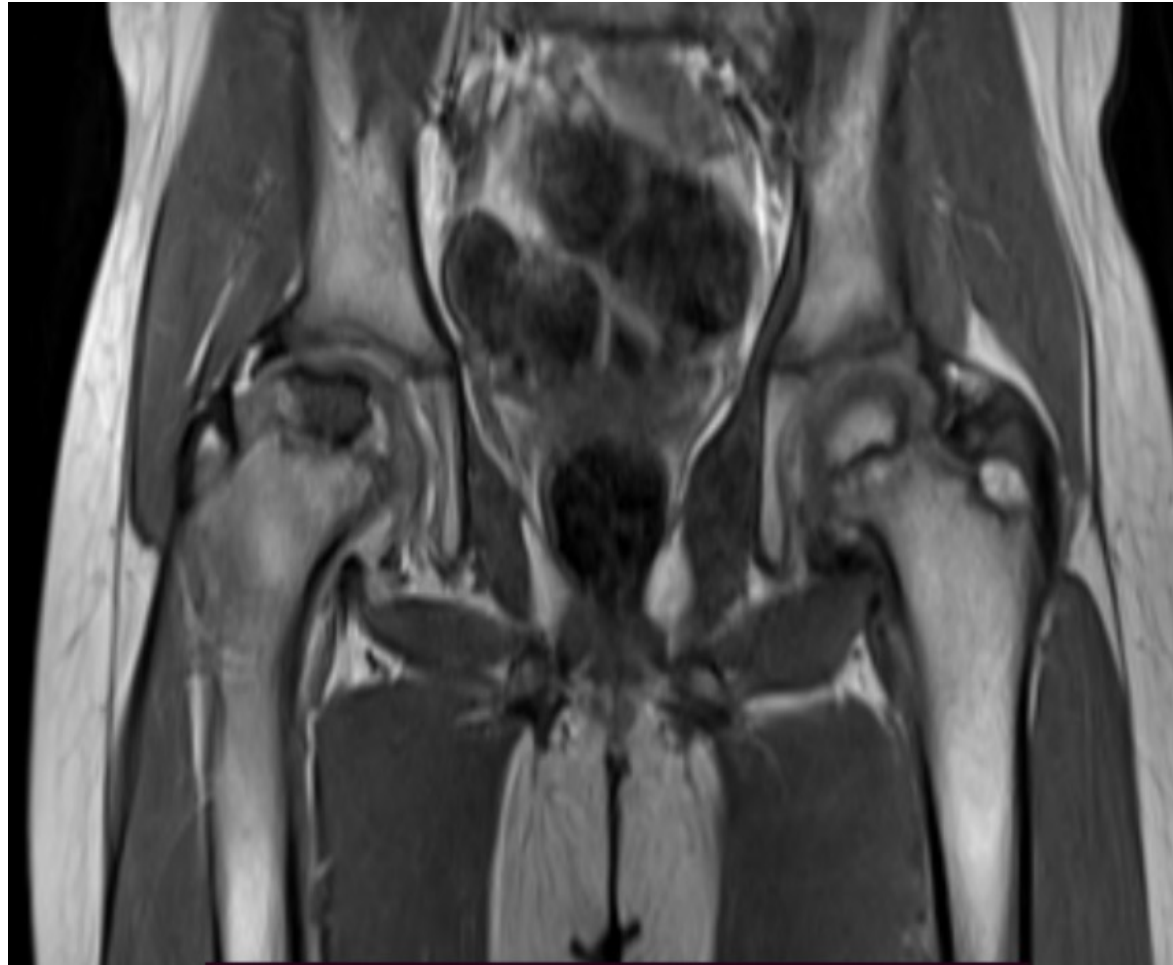
RADIOGRAPHIC FEATURES

- The radiographic changes to the femoral epiphyses depend on the severity of osteonecrosis and the amount of time that there has been alteration of blood supply:
 - **EARLY:** there may be no appreciable change
 - **ESTABLISHED:** Reduction in epiphysis size, lucency
 - **LATE:** fragmentation, destruction
-
- As changes progress, the width of the femoral neck increases (coxa magna) in order to increase weight-bearing support.

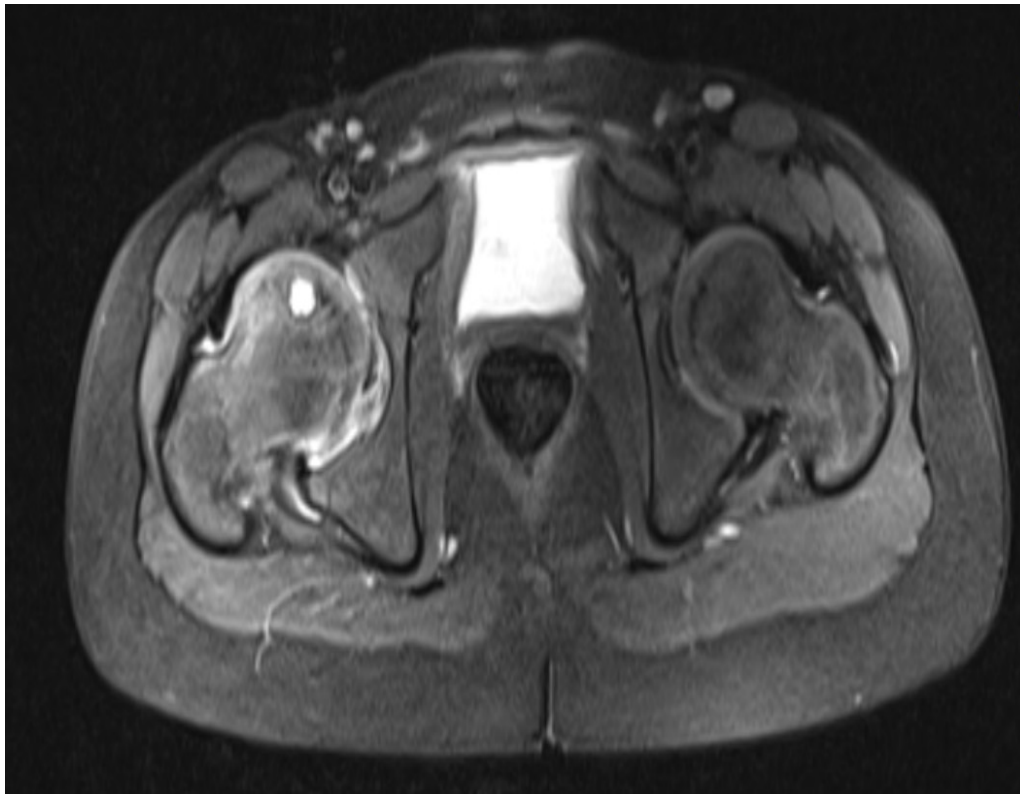
CT BOTH HIP



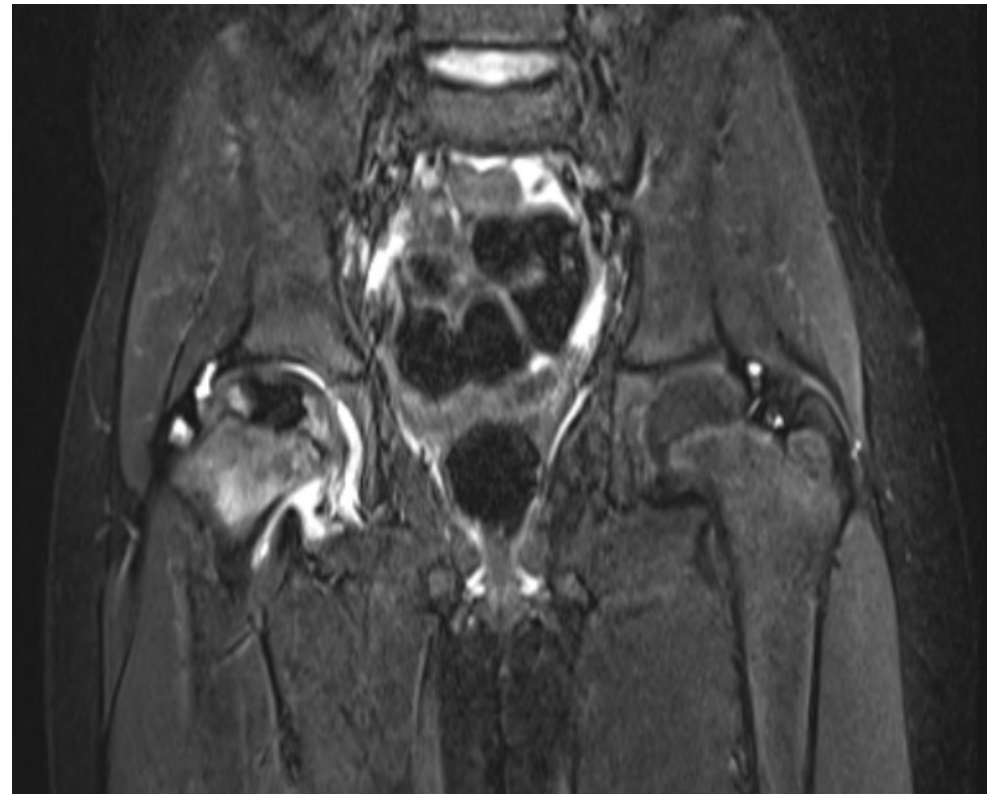
PD CORONAL

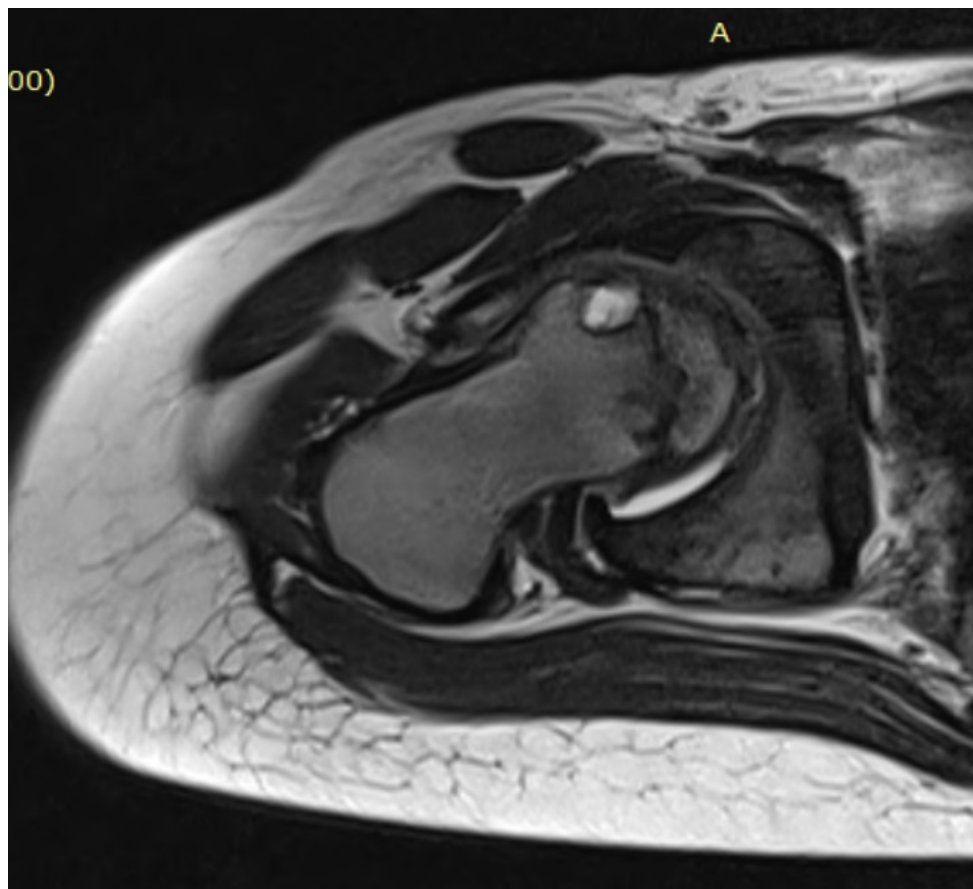


T2 AXIAL

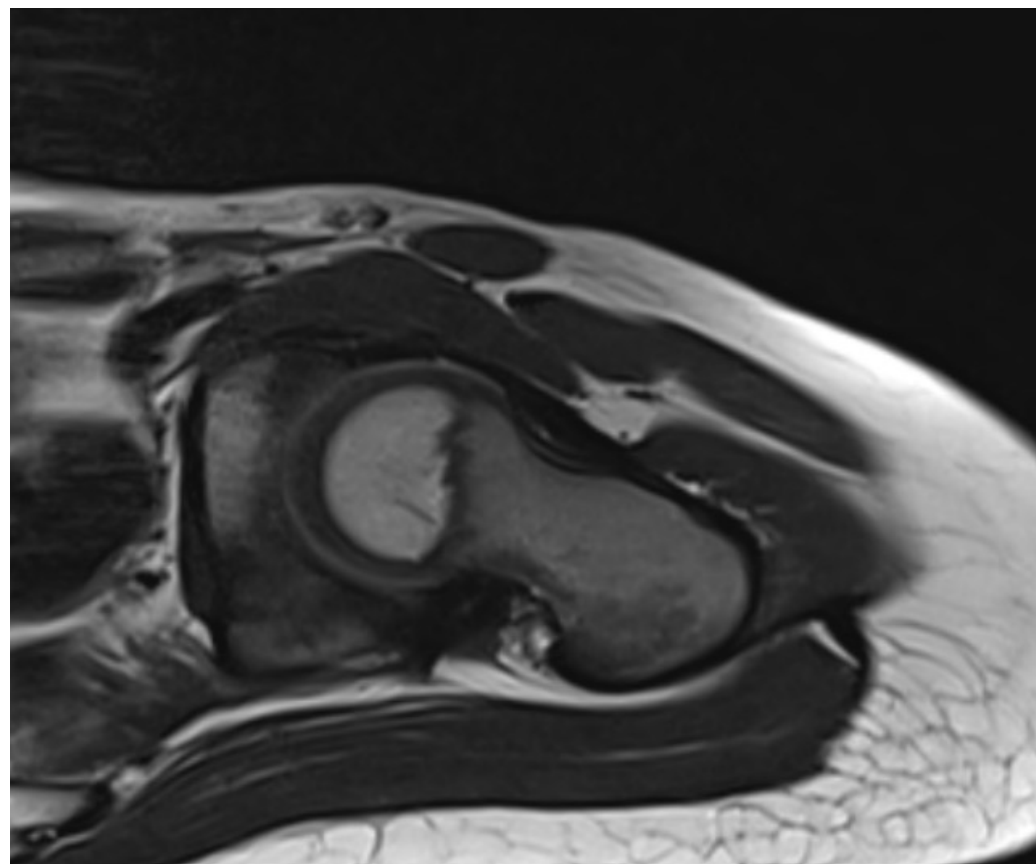


T2 CORONAL





RIGHT HIP AXIAL T2



LEFT HIP AXIAL T2

MRI FINDINGS

- Ill-defined T2 and T1 hypointense area noted involving the epiphysis of right capital femoral epiphysis with irregular contour and subchondral cysts involving the metaphysis.
- Mild hip joint effusion noted on right side
- On test CT correlation, there is seen flattening, surface irregularity and sclerosis of the right superior femoral epiphysis with early fragmentation.

DIFFERENTIAL DIAGNOSIS

- General imaging differential considerations include:
- Perthes disease
- Meyer dysplasia
- Slipped capital femoral epiphysis

PERTHES DISEASE

POINTS IN FAVOUR	POINTS AGAINST
➤ Age group	
➤ Flattening of epiphysis	
➤ Increased density of epiphysis	
➤ Unilateral in 90 % of cases	
➤ Maintained joint space	

MEYER DYSPLASIA

POINTS IN FAVOUR	POINTS AGAINST
➤ Flattening of epiphysis/small epiphysis	➤ Age group(02-03 years)
➤ Maintained joint space	➤ Increased density of epiphysis
	➤ Morulated appearance of epiphysis
	➤ Bilateral in distribution

JUVENILE IDIOPATHIC ARTHRITIS

POINTS IN FAVOUR	POINTS AGAINST
➤ Age group	➤ Maintained joint space
➤ Flattening of epiphysis	➤ Absence of osteopenia
	➤ Increased density of epiphysis

FOLLOW UP

- Patient was advised to avoid high jumping activities and prescribed NSAIDS for reduction of pain

THANK YOU..!