

# FEMOROACETABULAR IMPINGEMENT



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REPETITIVE MICROTRAUMA FROM IMPINGEMENT OF FEMORAL HEAD AGAINST ACETABULAM

## TYPES

PINCER IMPINGEMENT-ACETABULAR  
CAM IMPINGMENT - FEMORAL  
86% COMBINED CAM AND PINCER  
IMPINGMENT

PINCER	CAM
FOCAL /GENERAL ACETABULAR OVERCOVERAGE	ASPHERICAL HEAD
LINEAR CONTACT BETWEEN OVERCOVERING RIM AND HEAD- NECK JUNCTION	JAMMING OF ASPHERICAL HEAD PORTION IN ACETABULUM
FEMALES ,40 (40- 57)YRS	MALES ,32(21-51)YRS
DEPTH OF CARTILAGE DAMAGE – 4MM	DEPTH OF CARTILAGE DAMAGE- 11MM
	

## PLAIN RADIOGRAPH

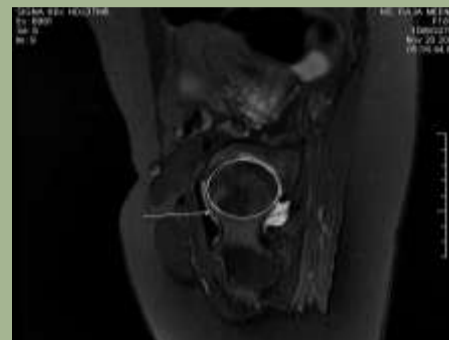
EARLY – NORMAL  
ADVANCED – JOINT SPACE  
NARROWING/ SUBCHONDRAL  
SCLEROSIS/ SUBCHONDRAL  
CYSTS/ OSTEOPHYTE  
FORMATION/LOSS OF ANTERIOR  
FEMORAL OFFSET

CASE REPORT : TWO YOUNG PATIENTS  
PRESENTED TO OUR DEPARTMENT WITH HIP  
PAIN WITH NO PREDISPOSING CAUSE

## CASE 1:DIAGNOSIS –CAM IMPINGEMENT



PLAIN RADIOGRAPH



MRI

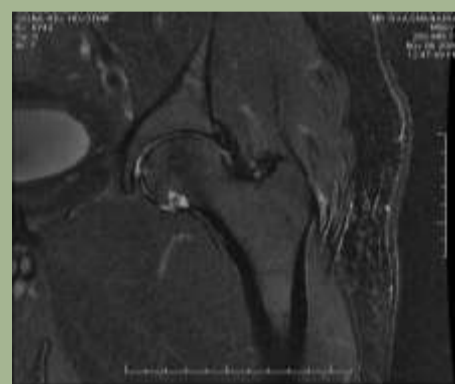
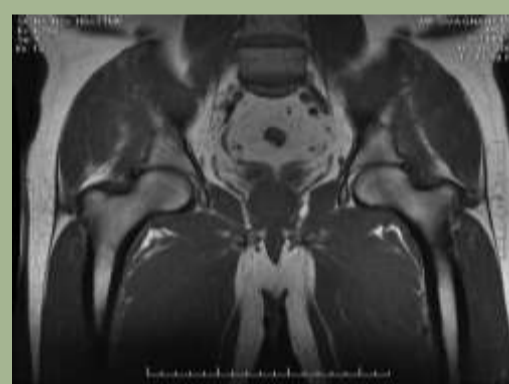
FINDINGS - ASYMMETRICAL  
HEAD,DECREASED FEMORAL  
HEAD-NECK  
OFFSET,ACETABULAR OEDEMA  
,FEMORAL IMPINGEMENT  
SITE OEDEMA,JOINT SPACE  
NARROWING.



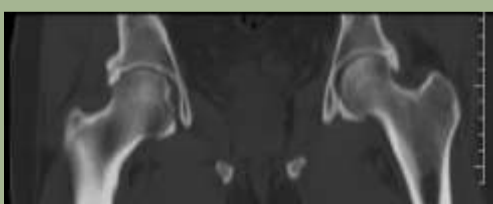
## CASE 2 :DIAGNOSIS- PINCER IMPINGEMENT



PLAIN RADIOGRAPH



MR ARTHROGRAPHY



CT - CORONAL

FINDINGS – PLAIN  
FILM SHOWS LABRAL  
OSSIFICATION  
SECONDARY TO  
ACETABULAR  
OVERCOVERAGE,MR  
SHOWS SUBCHONDRAL  
CYSTS/SCLEROSIS,CT-  
SHOWSBILATERAL  
LABRAL CALCIFICATION

SECONDARY  
CHANGES–HERNIATION PITS/  
OSSIFICATION OF  
LABRUM/APPOSITIONAL BONE  
SIGN/  
OS ACETABULI/POSTERIOR  
INFERIOR JOINT SPACE IOSS  
LATE: CLASSIC SIGNS OF  
OSTEOARTHRITIS

PINCER:FOCAL ACETABULAR  
RETROVERSION /HORIZONTAL  
GROWTH PLATE SIGN/LATERAL  
CENTER EDGE ANGLE >  
39°/REDUCED EXTRUSION  
INDEX/ACETABULAR INDEX ≤  
0°/POSTERIOR WALL SIGN  
CAM:ALPHA ANGLE >  
50°/FEMORAL HEAD–NECK  
OFFSET < 8 MM/OFFSET RATIO  
< 0.18  
FEMORAL RETROTORSION

## MR FINDINGS

T1WI :HYPOINTENSE OEDEMA  
+SCLEROSIS LATERAL  
ACETABULAR SUBCHONDRAL  
BONE,HYPO/INTERMEDIATE  
SIGNAL INTENSITY  
ACETABULAR SUBCHONDRAL  
CYSTS, ABNORMAL CONTOUR  
ACETABULAR LABRUM  
±DYSPLASTIC FEMORAL  
BUMP

MR ARTHROGRAPHY  
DETECTS LABRAL TEARS  
ACETABULAR SURFACE  
SUBCHONDRAL EROSIONS

## CONCLUSION

RECENTLY FEMOROACETABULAR IMPINGEMENT IS THE MAJOR CAUSE FOR EARLY  
OSTEOARTHRITIS IN YOUNG ,ACTIVE INDIVIDUALS CAUSED DUE TO REPETITIVE MICROTRAUMA OF FEMORAL HEAD  
AND ACETABULAM EARLY RADIOLOGICAL IDENTIFICATION IS ESSENTIAL TO PREVENT EARLY OSTEOARTHRITIS

## REFERENCE

Tannast et al . AJR 2007 188:1540 -1552  
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Chreyl A.Petersilge,MD . Radiographics 2000;20:s43-s52