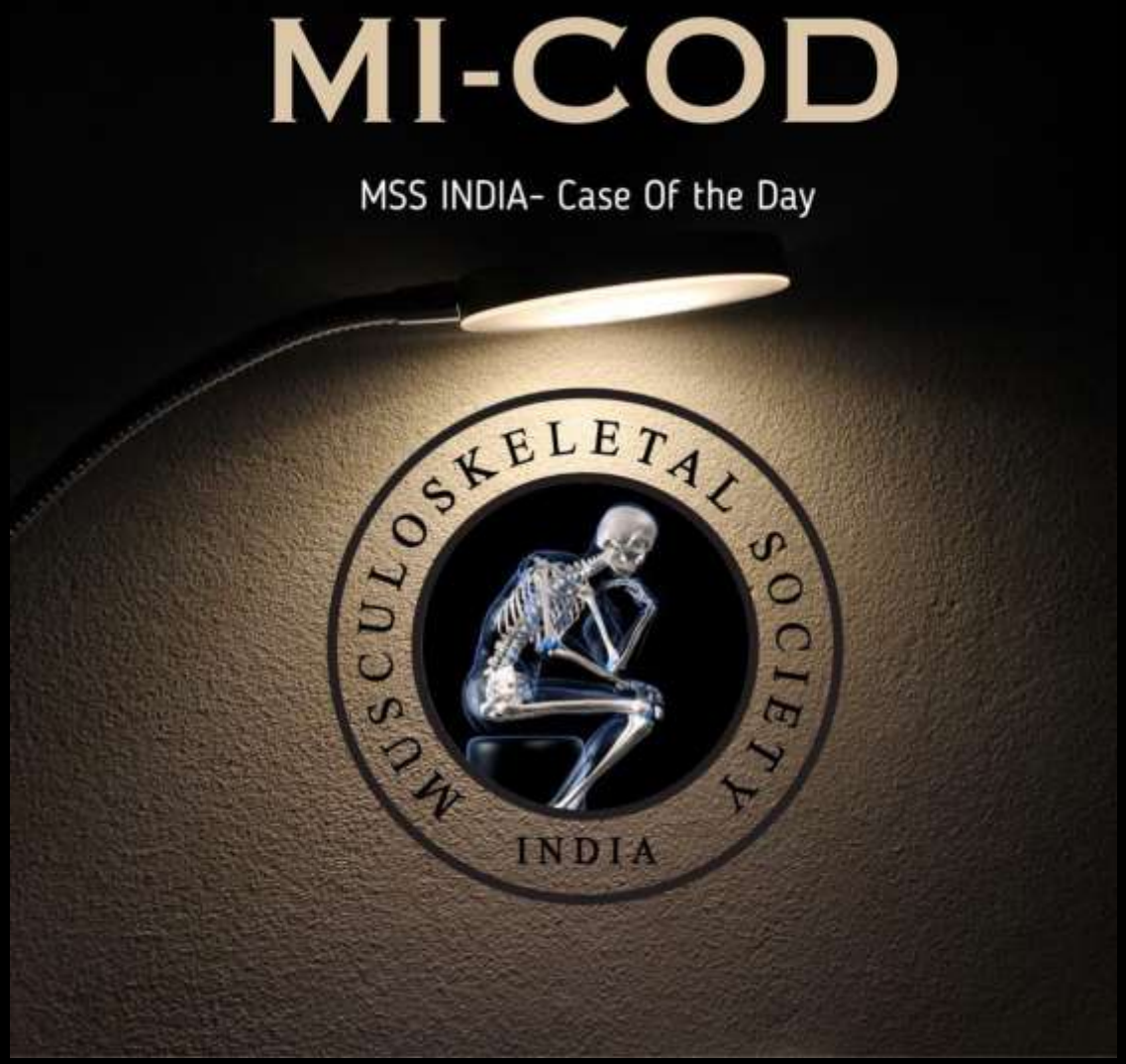
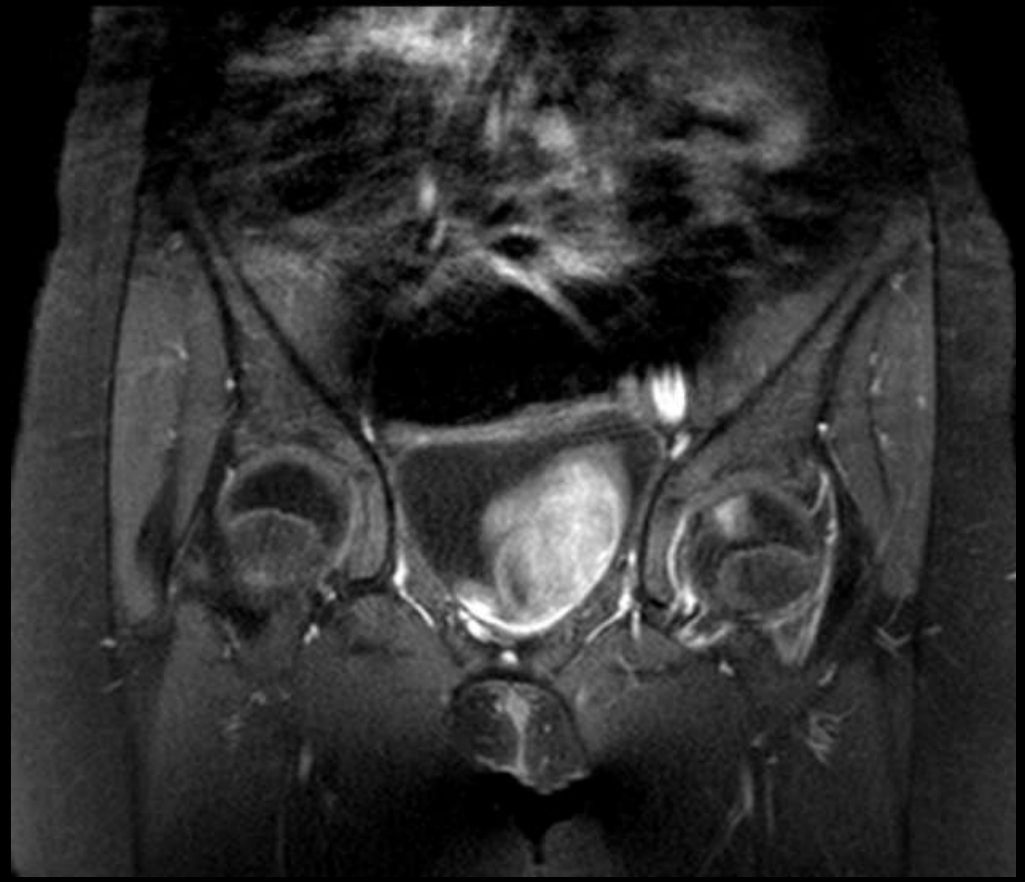
# MICOD – 08/02/2024
# Case contributor – Dr. Ravinder Kaur



9 year old female with H/O of pain & restricted movements in left hip joint for one month.
No H/O fever , significant trauma .
TLC/DLC/ESR/CRP - Normal

STIR

T1W



Post contrast

# Findings

- Rectangular area of edema in femoral epiphysis in middle part extending to subarticular region showing enhancement on postcontrast images .
- Minimal joint effusion with synovial thickening
- Mild narrowing of joint space

# Idiopathic chondrolysis of Hip

- It is an uncommon pediatric disorder characterized by the ultimate loss of articular cartilage of the femoral head and acetabulum in the absence of known etiologies of chondrolysis
- Most commonly presnt in age of 9–12 years
- The cause remains elusive. Several authors have proposed an immunologic cause for chondrolysis
- X-Ray shows a concentrically narrowed joint space < 3 mm without accompanied by osteopenia
- Wedge shaped focal area of altered signal intensity in the proximal femoral epiphysis which is shown in MRI as focal T2 hyperintensity or T1 hypointensity (Characteristic and Earliest finding in MRI) centered in the middle one third of the femoral head in coronal images±Synovial hypertrophy and joint effusion in stage 1

MUSCULOSKELETAL RADIOLOGY

# Idiopathic chondrolysis of hip in children: New proposal and implication for radiological staging

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## Abstract

**Purpose:** Our objective was to evaluate the radiological appearances in different stages of idiopathic chondrolysis of hip (ICH) which will be helpful in the early diagnosis and guiding appropriate treatment for this condition to prevent progression of disease. **Materials and Methods:** We evaluated 14 patients of ICH in varying stages: Stage 1 (*n* = 9), Stage 2 (*n* = 3), Stage 3 (*n* = 2). Average age at presentation was 10–11 years. Plain radiograph and magnetic resonance imaging (MRI) was done in all these patients. **Results:** In the current study, we have attempted to stage ICH based on the radiological progression of the disease, where MRI was used as the primary tool. Stage 1 showed a wedge-shaped hyperintensity in T2 weighted (T2W) and hypointensity in T1 weighted (T1W) images involving the middle one-third of the femoral head and it is the earliest and characteristic finding in MRI. Associated findings like joint space narrowing, synovial hypertrophy with joint effusion may also be observed. Stage 2 showed acetabular edema in the affected hip in addition to the above-mentioned findings. Stage 3 showed more extensive involvement of femoral head and acetabulum, with collapse of the femoral head, degenerative changes in hip, early osteoporotic changes, and