KREP

2025

KARNATAKA RADIOLOGY EDUCATION PROGRAM

CASE PRESENTATION

DEPARTMENT OF RADIODIAGNOSIS, JJM MEDICAL COLLEGE, DAVANAGERE

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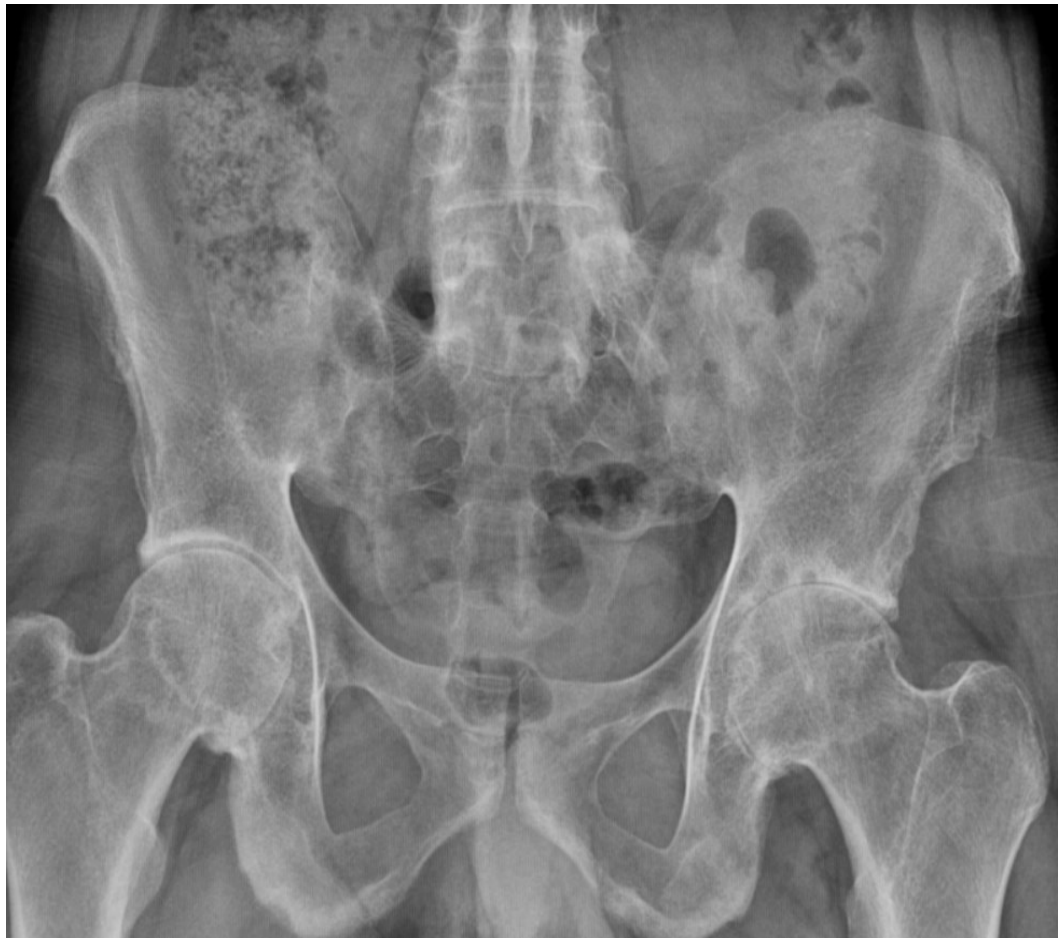
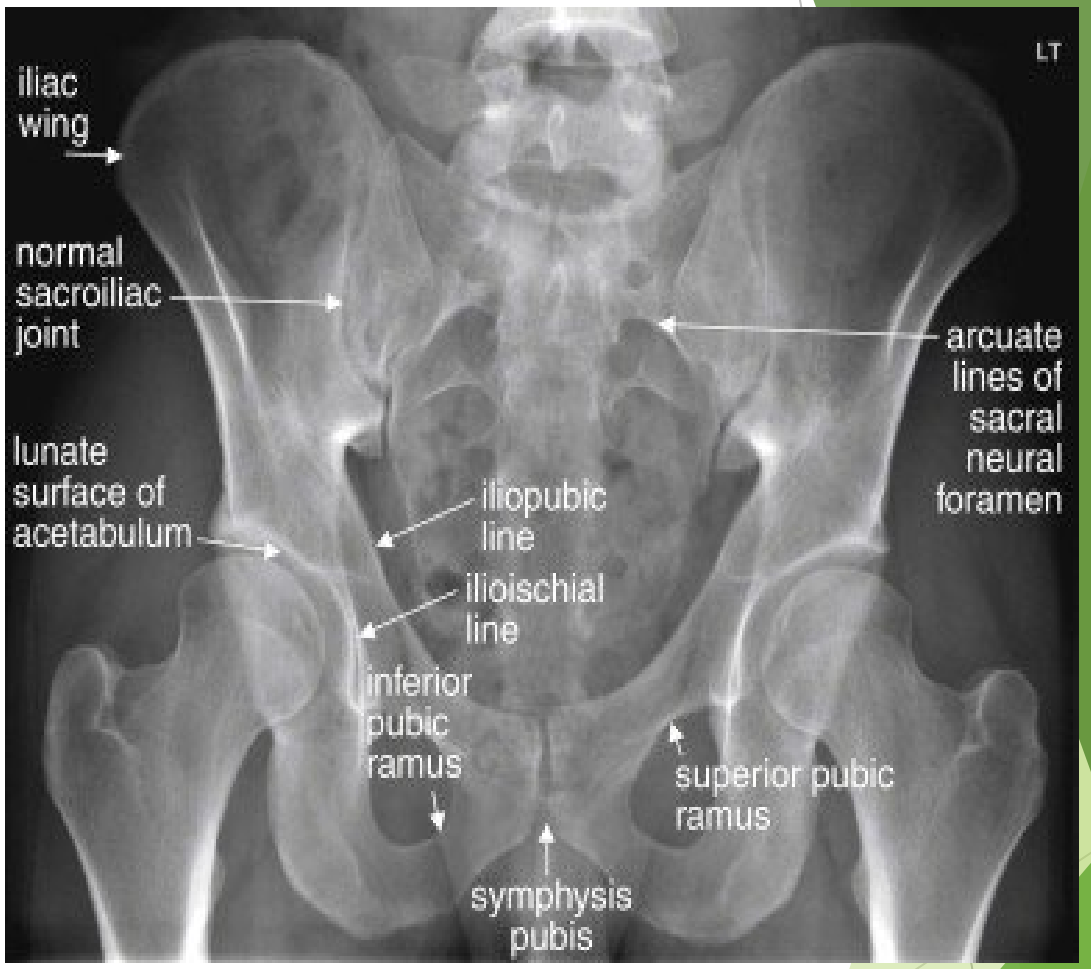
History

- 24-year-old male, came to opd with complaint of pain in right gluteal region.
- Pain since 1 year, insidious in onset, gradually progressive
- Initially started as back pain and then radiated towards right lower limb.
- Pain continuous in nature, and increases as a day progresses
- h/o 2-3 episodes of fever
- h/o significant weight loss and difficult in walking
- No h/o bowel, Bladder disturbances, vomiting and stomach pain, blurring of vision

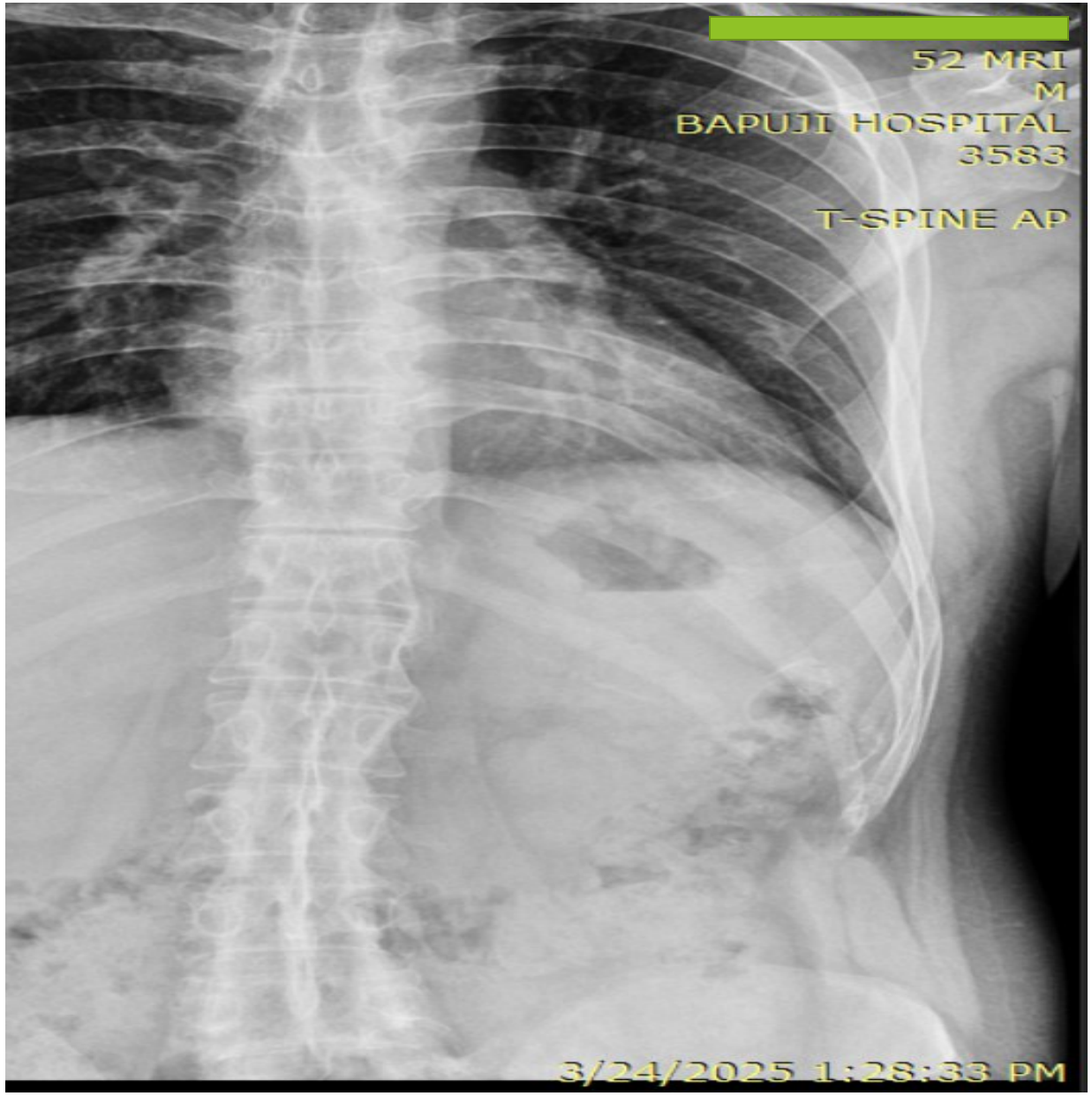
Investigations

- CRP – 147 (High)
- Rheumatoid factor – 10 (Normal)
- CBC- Normal
- RFT, LFT – WNL
- HLA-B27- Not done

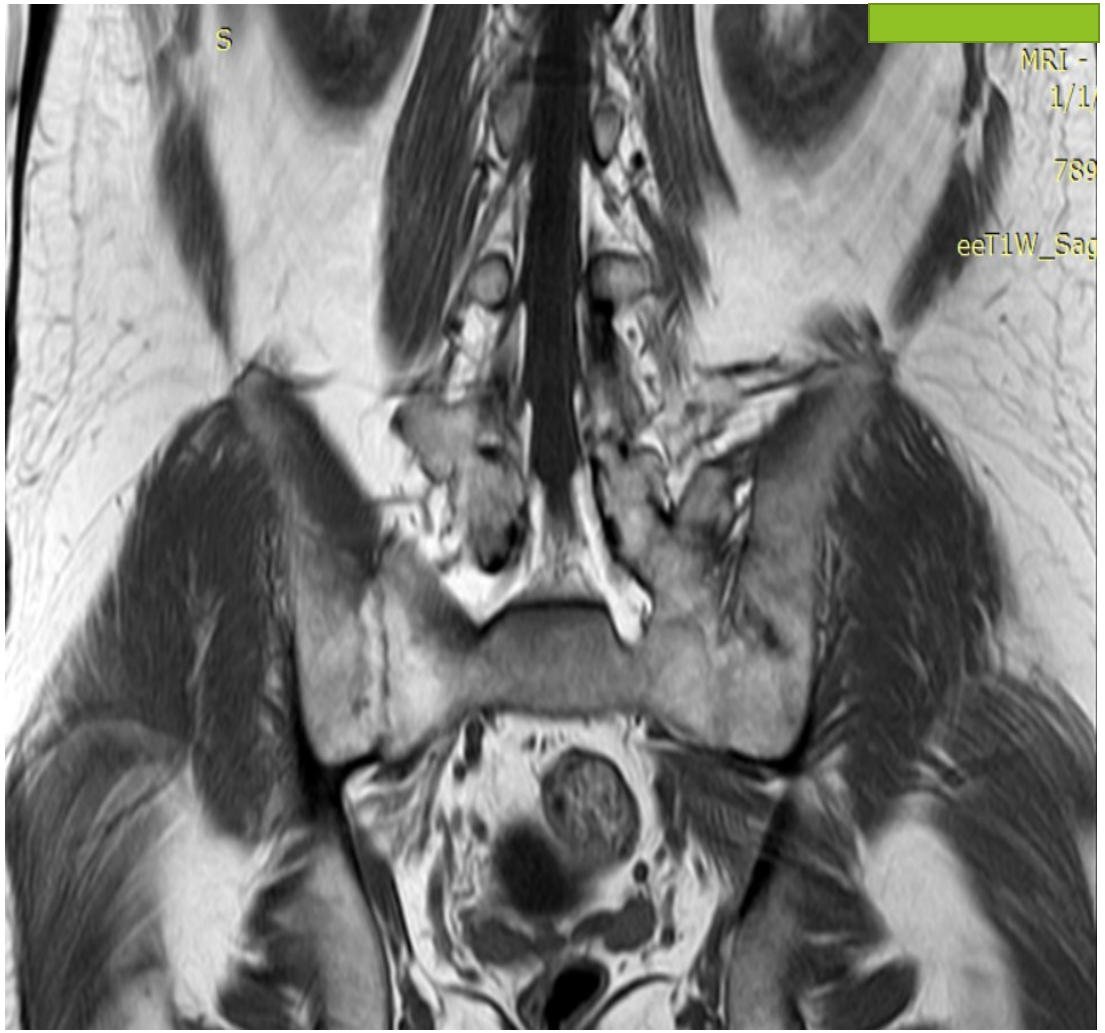


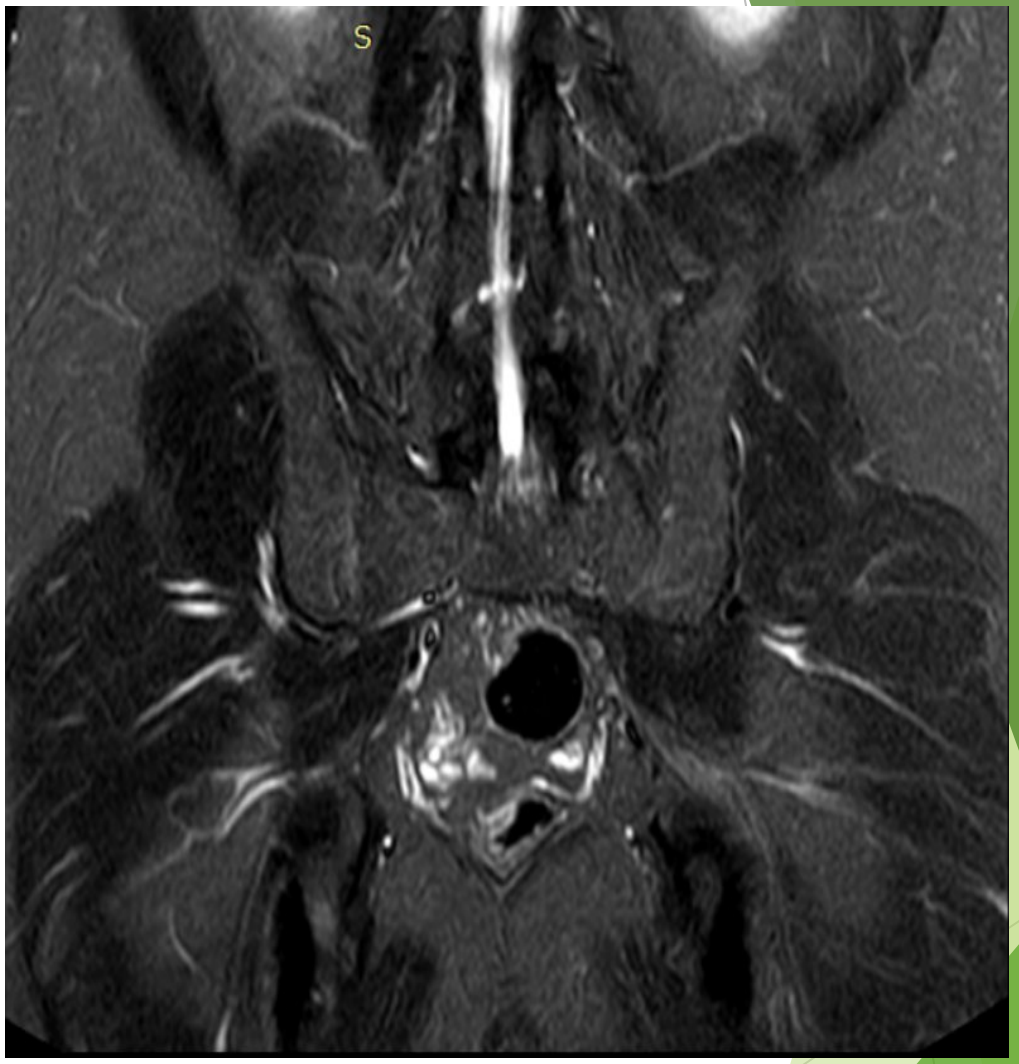


Evidence of significant reduced joint space of bilateral Sacro iliac joint with fusion of joints.
Evidence of uniform reduction in Joint space of bilateral hip joint with bony sclerosis with tiny subchondral cysts involving left acetabulum.

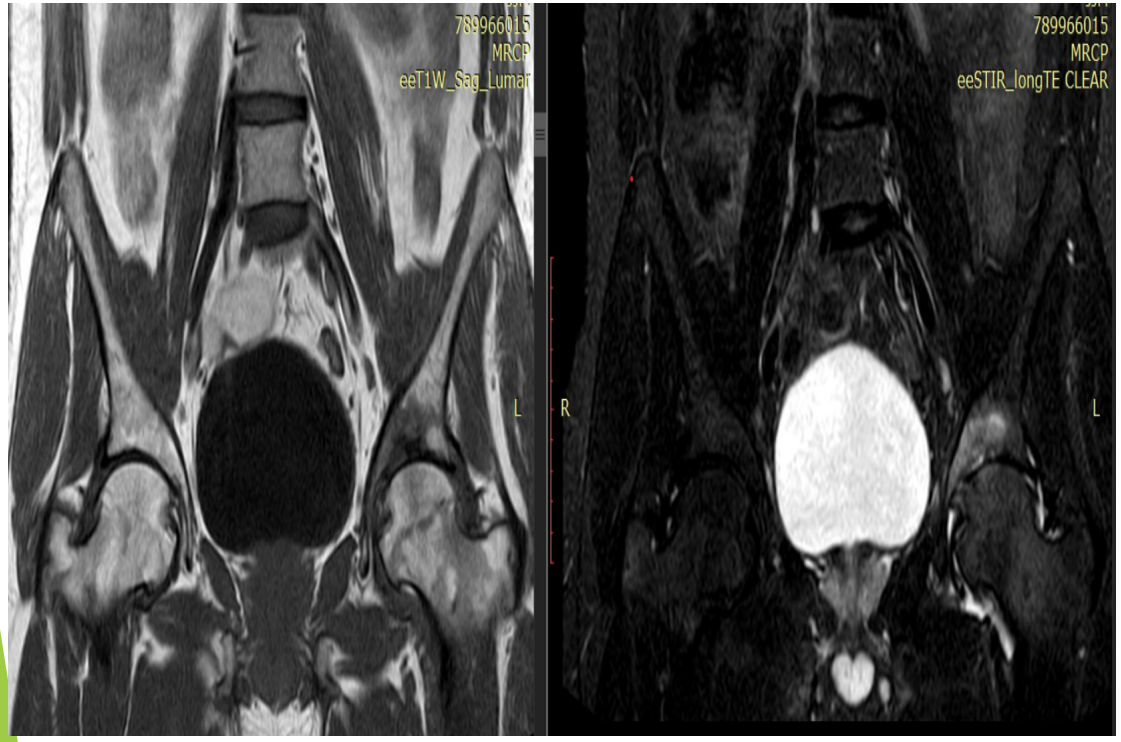


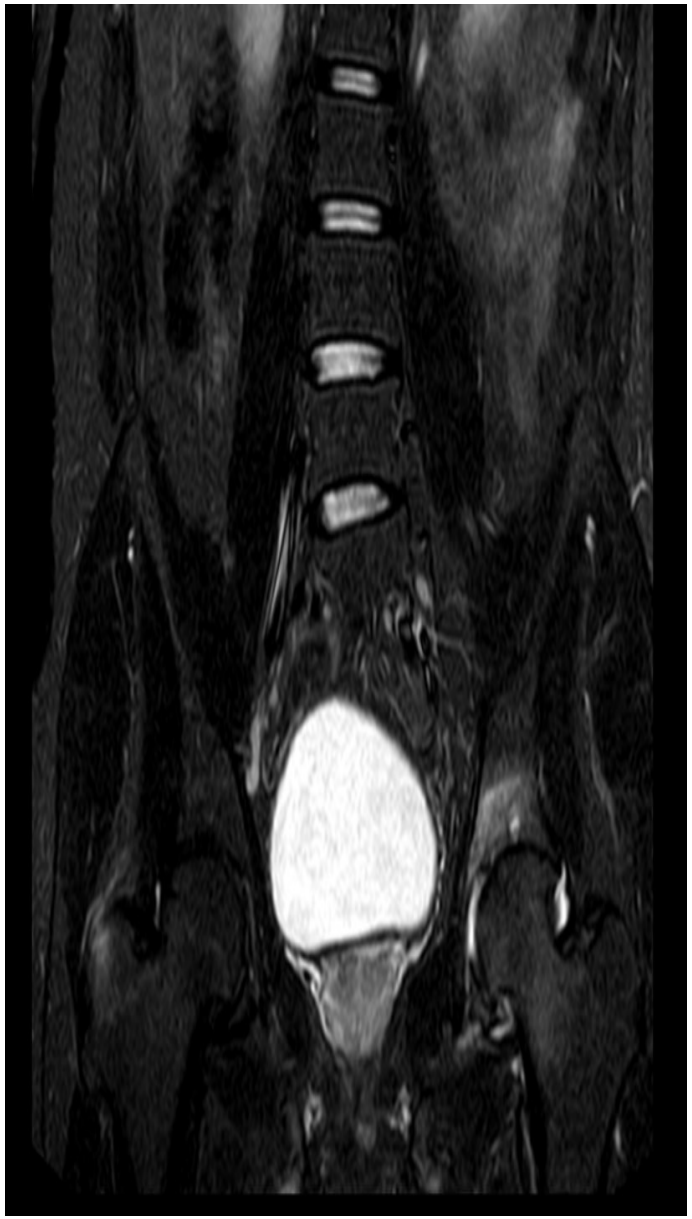
Central radio dense line noted in visualized thoracic spine indicative of dagger sign, which due to ossification of intraspinous and supraspinous ligaments

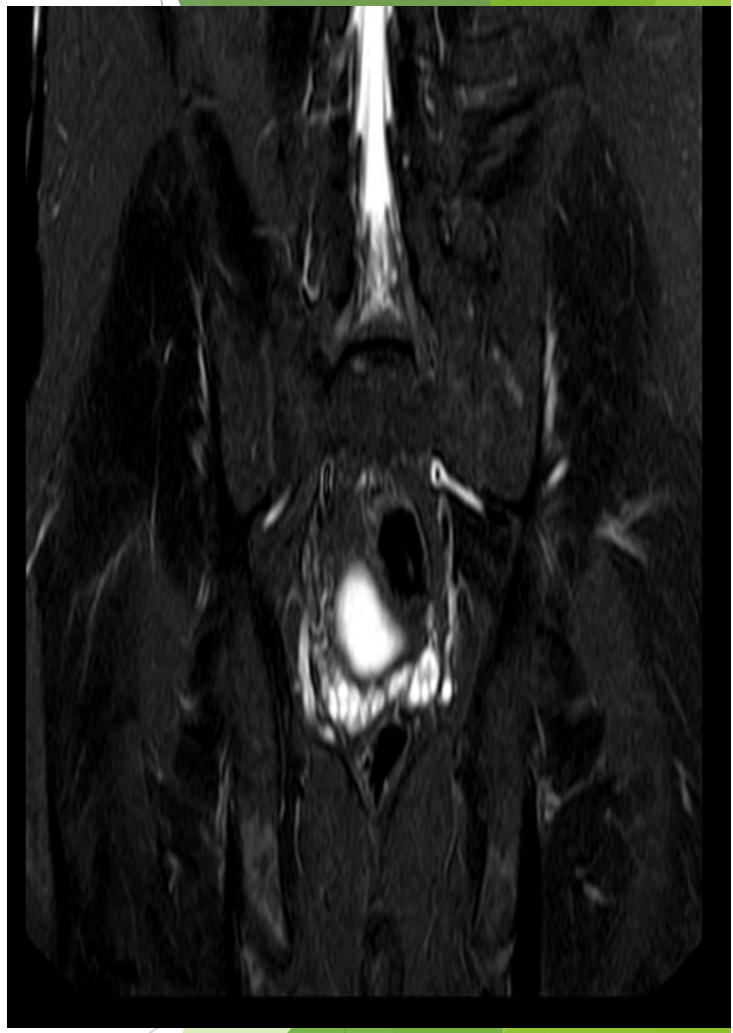




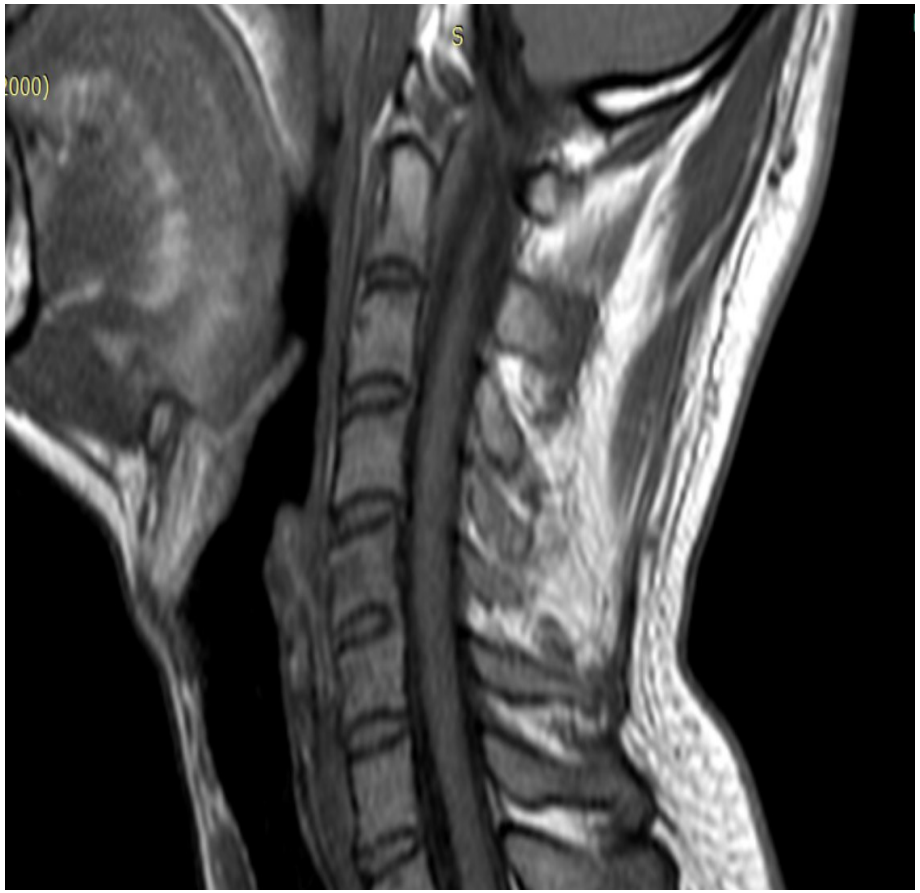
T2/STIR mild altered signal noted in BILATERAL SI joint with fusion. Both STIR hyperintensity and joint fusion reflects the dual pathology of Ankylosing Spondylitis — ongoing inflammation coexisting with irreversible structural remodeling.

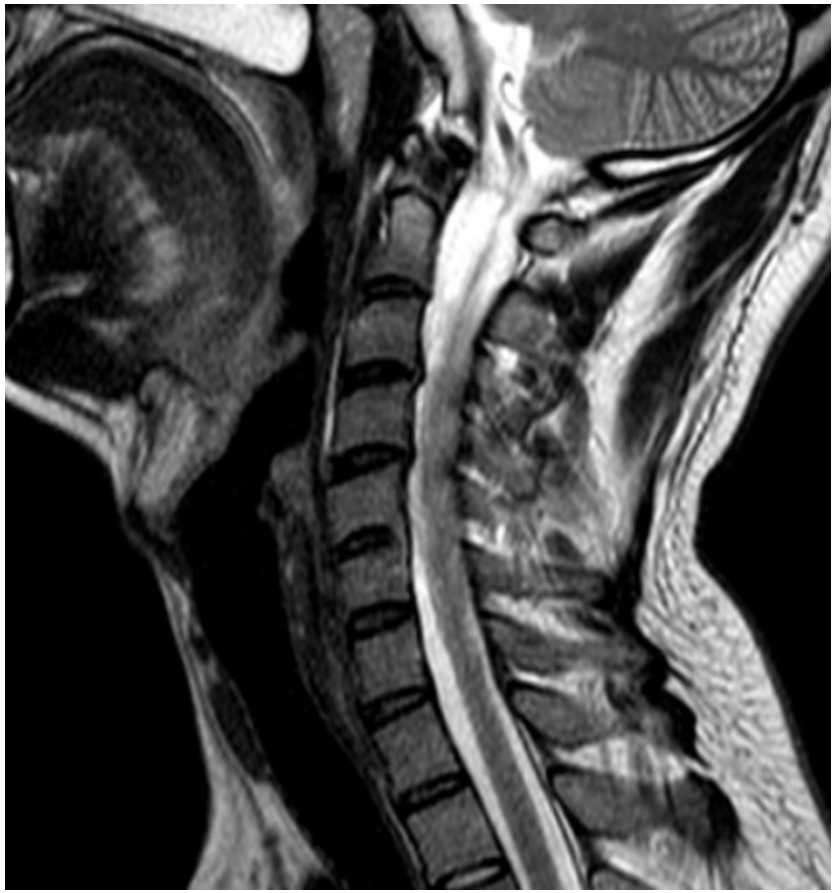




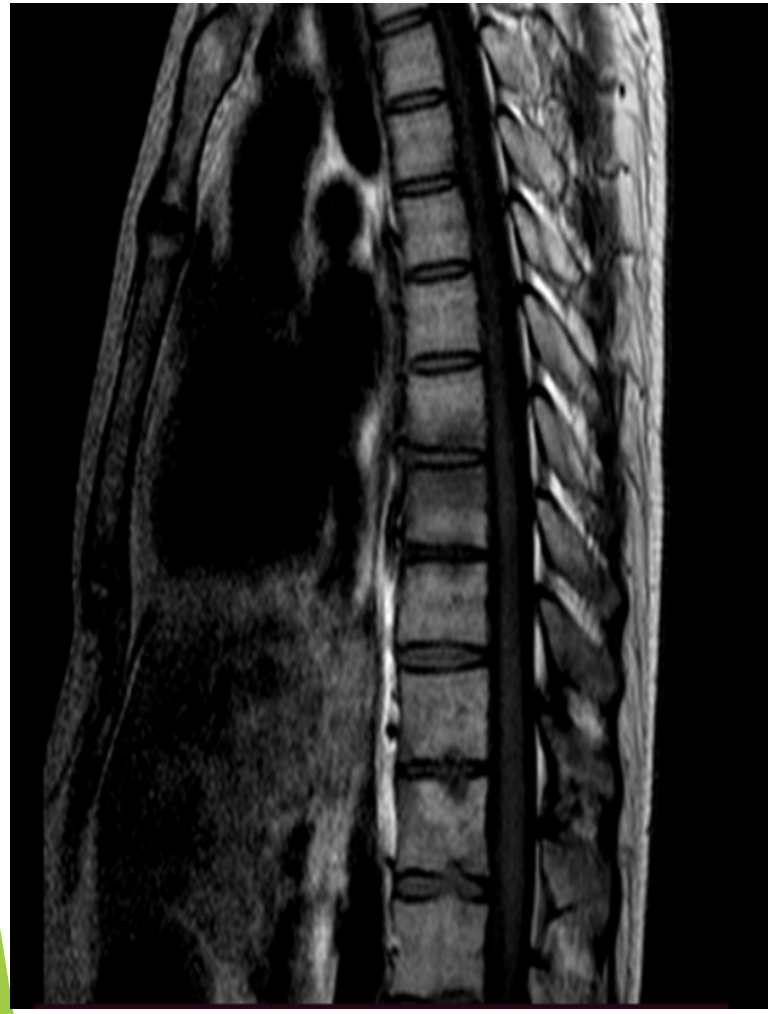


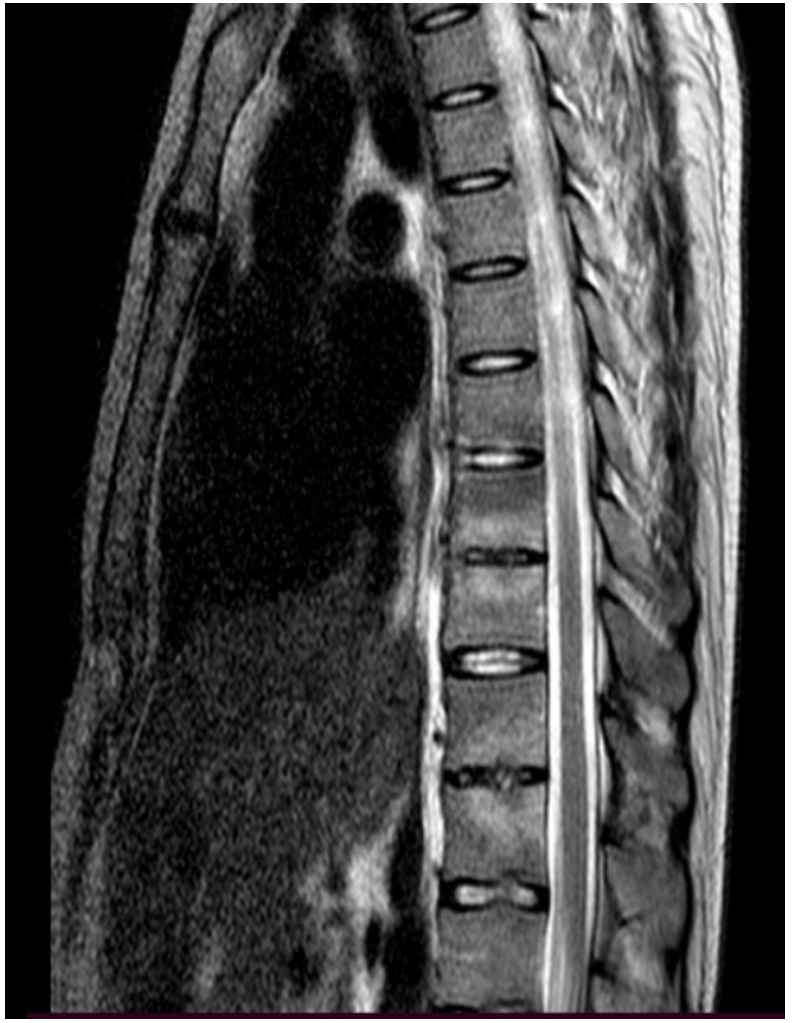
STIR hyperintensities with cortical irregularities in left acetabulum, head and neck of left femur, right great trochanter and bilateral ischium. Mild joint space narrowing with joint effusion is seen in left hip joint.

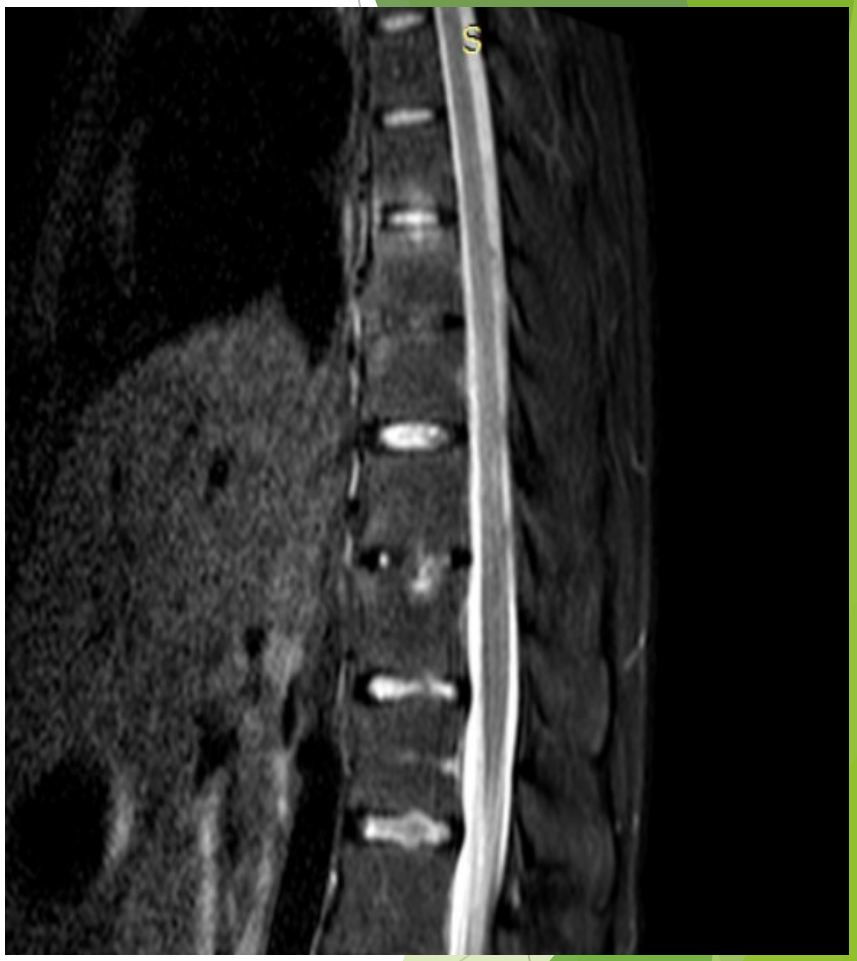




THIS IS SAGITTAL T1/T2W SEQUENCE OF CERVICAL SPINE.
Partial bony ankylosis is noted from C3 to C6 vertebra with bridging syndesmophytes showing marrow fat signal. No neural foraminal / spinal canal stenosis.







T1/T2/STIR sequence of sagittal dorso vertebra.

Disc desiccatory changes noted in visualized thoracic spine with horizontal T2 hyperintense, T1 hypointense line noted in anterior part of intervertebral disc with surrounding T2 hyperintensities in adjacent end plates of D7-8 and D9-10 – likely ANDERSSON LESION.

IMPRESSION:

- Joint space narrowing in bilateral hip joint with bony sclerosis with tiny subchondral cysts involving left acetabulum.
- Mild joint space narrowing noted in bilateral sacroiliac joint – likely partial bony ankylosis.
- Central radio dense line with fusion of supra and infraspinous ligaments in visualized thoracic spine – DAGGER SIGN.
- Partial bony ankylosis in C3 to C6 vertebra with bridging posterior syndesmophytes showing marrow fat signal. No neural foraminal / spinal canal stenosis.
- Disc desiccatory changes noted in the visualized thoracic spine with a horizontal T2 hyperintense, T1 hypointense line noted in anterior part of intervertebral disc with surrounding T2 hyperintensities in adjacent end plates of D7-8 and D9-10 – likely ANDERSSON LESION.
- STIR hyperintensities with cortical irregularities in left acetabulum, head and neck of left femur, right great trochanter and bilateral ischium. Bilateral mild joint space narrowing with joint effusion is seen in left hip joint.

Overall features consistent with INFLAMMATORY SPONDYLOARTHRITIS

>>>> likely ANKYLOSING SPONDYLITIS.

Suggested HLA-B27 correlation

THANK YOU