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Ankylosing Spondylitis Presenting with Asymmetrical Arthritis and Fever of Unknown Origin

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Abstract: ***A 19 yrs male presented with 3-4 months history of intermittent fever; 2 months history of right knee joint pain and swelling. He also had history of lower back pain and reduced lumbar mobility since last 8-10 months. Radiographs of thoracic and lumbar spine shows marginal syndesmophytes with bamboo like appearance and pelvic radiographs showed inflammation in right sacroiliac joint s/o sacroilitis. He was diagnosed with ankylosing spondylitis based on limitation in lumbar spine mobility, limitation in chest expansion, radiographic findings and HLA B27 report. This case highlights that asymmetrical arthritis and fever of unknown origin can be initial presentation of ankylosing spondylitis.***

Keywords: Ankylosing spondylitis presenting with asymmetrical arthritis and fever of unknown origin

1. Introduction

Ankylosing spondylitis is one form of axial spondyloarthritis which is chronic inflammatory disorder characterized by inflammation of the vertebral and sacroiliac joints. The major clinical feature of AS is chronic lower back pain and can also involve cervical, thoracic, lumbar spine and pelvis. Extra axial joint involvement is also seen involving knee, ankle and wrist joint in AS but asymmetrical arthritis is rare presentation of ankylosing spondylitis. AS can present with miscellaneous extra articular symptoms including uveitis, enthesitis or inflammatory bowel disease. On other hand fever is rarely associated with AS, and AS presenting as fever of unknown origin would be atypical.

2. Case Presentation

A 19 yrs old male presented with complaints of right knee joint pain and swelling since 2 months along with intermittent fever exceeding 38 degrees since 2-3 months, patient also had complaints of lower back pain and morning stiffness since 7-8 months, lower back pain and morning stiffness were responding to pain killers (NSAIDS). Patient had received antibiotics therapy and analgesics for fever before reporting to our institute. He denied any complaints of visual disturbances or episodes of diarrhea. He had operated for VSD 4 yrs back.

On admission patient was conscious oriented comfortably lying in bed with blood pressure 120/70 mmhg and pulse rate 84/min regular with body temp 38.3 degrees. No skin rash observed systemically. There is severe restriction in extension of spine noted, mobility of lumbar spine is severely reduced. Chest expansion during inspiration is markedly reduced to mere 1.34 cm. Faber's test, Schober test were performed both were found to be positive indicating limitation in spine as well as hip joint movements. External rotation at hip joint is painful and restricted. local examination of right knee joint suggests tenderness, swelling and redness with restriction of flexion extension movements.

3. Investigations

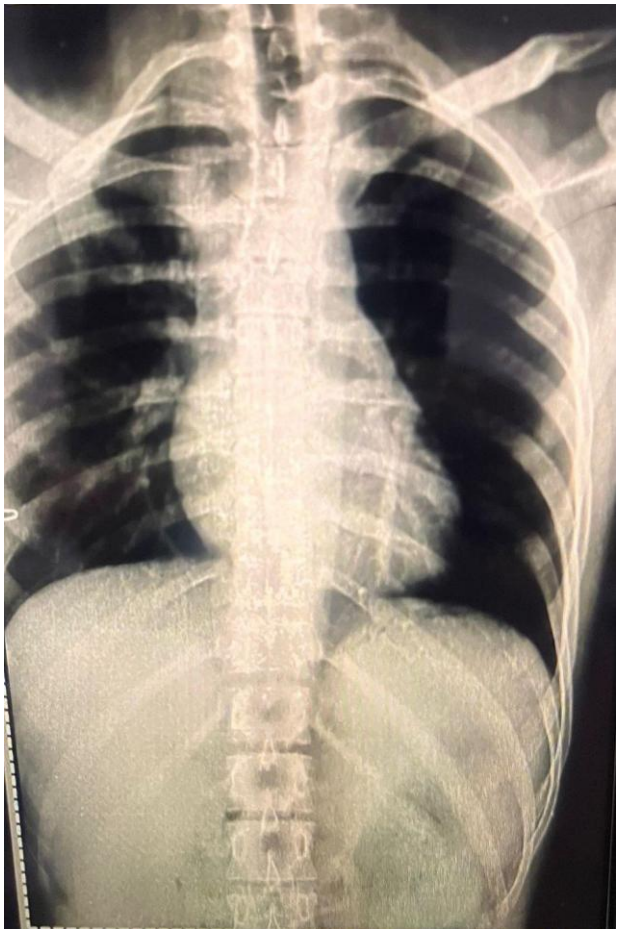
Laboratory values as follows-hemoglobin 7.8gm/dL, leucocyte count 8060/mcgL, Platelets 288000/mcgL, AST-43 U/L, ALT-34 U/L, Creatinine-0.8 mg/dl, C-reactive protein 76.5 (0-6 ng/dl), Erythrocyte sedimentation rate 112 mm/hr (0-22 mm/hr)

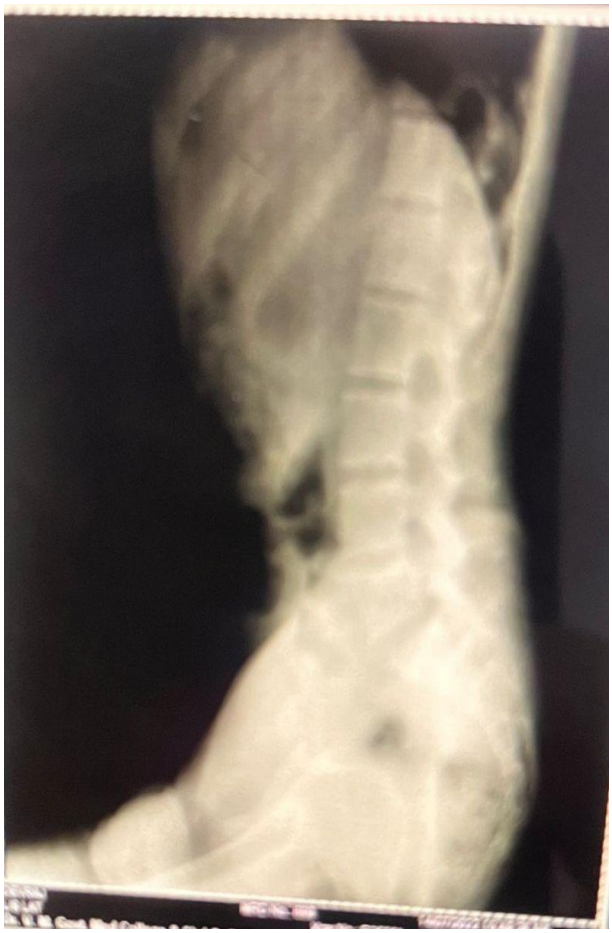
ASO titre 60 (Normal <200), RA factor –Negative
HLA B-27-POSITIVE (by flow cytometry method)

Chest radiograph showed ossification of costo sternal and costo vertebral joints, Radiograph of spine AP and lateral shows syndesmophytes and ossification of vertebral bodies with appearance as bamboo spine.

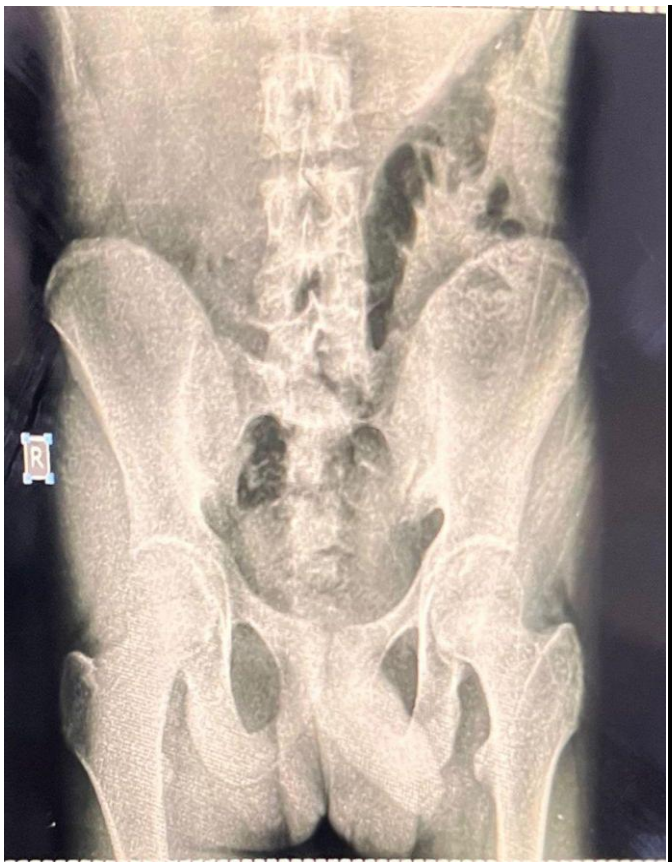
Radiograph of sacroiliac joint shows sclerosis in right sacroiliac joint s/o sacroilitis

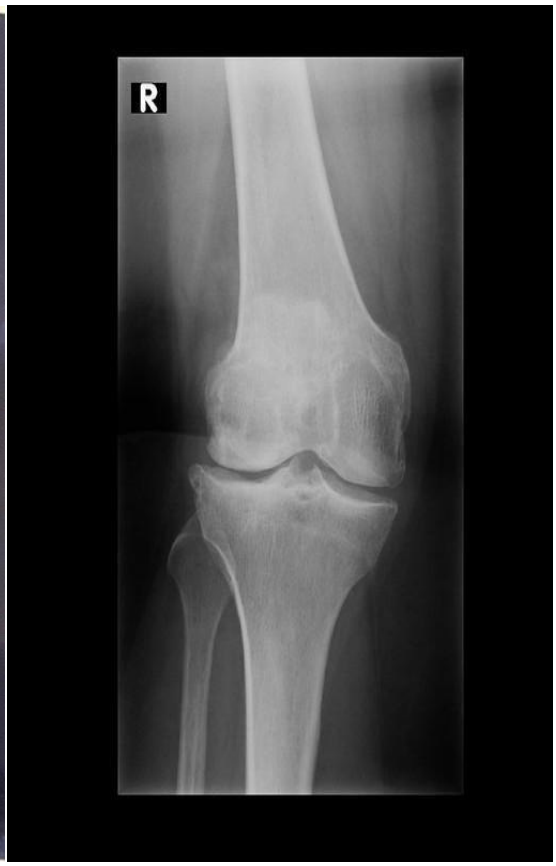
X-ray of Right knee joint shows-Reduced joint space and osteopenic bone growth





(Chest radiograph showed ossification of costo sternal and costo vertebral joints, Radiograph of spine AP and lateral shows syndesmophytes and ossification of vertebral bodies with appearance as bamboo spine)





4. Discussion

Asymmetrical arthritis is rare presentation of ankylosing spondylitis. It involves specifically extra axial joint causing inflammation and manifest as swelling, joint pain and tenderness. Clinical assessment of asymmetrical arthritis and fever of unknown origin is important in early diagnosis and management of ankylosing spondylitis. Genetic factor has an important role in the diagnosis of spondyloarthritis. HLA B27 has strongest association with ankylosing spondylitis it is positive in almost 89 % of ankylosing spondylitis. Patients presenting with fever of unknown origin experiences flares in their life. Hence early and prompt diagnosis is crucial for prognosis in AS patients

5. Conclusion

Restricted spine extension or flexion and poor chest expansion are poor prognostic indicators hence early diagnosis by suspicion from atypical clinical features, prompt treatment with NSAIDS (Indomethacin is preferred) and regular aerobic exercises are crucial in improving clinical outcome and survival of the patient.

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