

Ankylosing spondylitis hip joint post mono-articular Tubercular arthritis: A clinical dilemma

Akshay Lekhi^{1,*}, Ashok Kumar²

¹PG Resident, ²Professor & HOD, Dept. of Orthopaedics, Santosh Medical College & Hospital, Ghaziabad, Uttar Pradesh

***Corresponding Author:**

Email: kumarashokananddr@gmail.com

Abstract

Ankylosing spondylitis is a chronic inflammatory autoimmune disease of the axial skeleton, with variable involvement of peripheral joints and non-articular structures. Tuberculosis of hip and sacroiliac joints usually starts during first three decades but no age is immune. In early stages of TB of hip, there is a diagnostic dilemma when plain X-rays are negative. This case presents such a dilemma in the establishment of diagnosis and management protocol which was initiated elsewhere based on clinical assessment and incomplete as well as intermittent investigations.

The idea of reporting this case is to emphasize on its rarity. The elsewhere treated one year old right tubercular hip was ultimately diagnosed as having ankylosing spondylitis affecting bilateral sacroiliac and hip joints with more advanced ankylosis in the left hip having an insidious onset and 10 degree of fixed flexion in left knee joint.

Keywords: Ankylosing spondylitis, Tubercular arthritis, Hip stiffness, Dilemma

Introduction

Ankylosing spondylitis is a chronic inflammatory autoimmune disease of the axial skeleton, with variable involvement of peripheral joints and non-articular structures. Ankylosing spondylitis is one of the seronegative spondylo-arthropathies and has a strong genetic predisposition. It mainly affects joints in the spine and the sacroiliac joint in the pelvis. In severe cases, complete fusion and rigidity of the spine can occur. Bilateral sacro-ilitis and painful hip stiffness has both ankylosing spondylitis as well as tubercular arthritis as differential diagnosis.

Tuberculosis of hip and sacroiliac joints usually starts during first three decades but no age is immune. Pain in the hip, limp, restriction of movements is present in almost all the cases. In the present time, diagnostic modalities have improved from the days when diagnosis was based essentially on clinic-radiological presentation alone.

In early stages of TB of hip, there is a diagnostic dilemma when plain X-rays are negative.⁽¹⁾ This case presents such a dilemma in the establishment of diagnosis and management protocol.

The 21 year old patient developed insidious onset pain in right hip joint that increased on weight bearing and relieved on rest. He had difficulty walking without support for 1 month and later could only walk five to eight steps with the help of walker. Flare ups of pain at night and early morning were present before medications were started elsewhere. Patient was irregular in follow ups and reported to us after one year for right hip stiffness and left hip pain since one and a half month. Pain in the right hip had relieved with the anti-tubercular drugs and stiffness persisted in the right hip joint.

Patient used walker for limited locomotion and has been on continuous bed rest without much ambulation. He developed left hip joint pain that was dull aching type since one and a half month. The left hip pain did not radiate and improved with moderate activity. There is no associated history of fever, malaise, weight-loss or night sweats. There is associated stiffness in the left hip and knee joints that had increased over the past one month. There was increased stiffness in lower back noticed by the patient in last one month of reporting to the hospital. There were no associated breathing difficulties or back pain.

There is no suggestive history of trauma or similar illness or any other chronic illness.

No surgical intervention has been done for any of the complaints in the past.

Family history does not give any significant finding.

Patient has been a non-smoker and does not have any addiction.

He is on the two drugs anti-tubercular regime with Rifampicin and Isoniazid at present.

Bowel /bladder habits have not been changed.

Materials and Method

The present study was carried out in the Orthopaedics department of Tertiary level health care institute at Ghaziabad, Uttar Pradesh.

Blood investigations (ESR-raised, CRP - raised, CBC - normal leukocyte count, RBS - no abnormal finding, RA factor - negative), Mantoux test, Immunological tests (HLA B27), radiographs bilateral hip joints and MRI were done to continue the evaluation and monitor the progressive changes in the hip and sacro-iliac joints.



Fig. 1 and 2: Indicating the posture and attitude of trunk and legs while standing

On clinical examination the positive findings were - right hip joint 45 degrees externally rotated and fixed in five degrees of flexion. Right knee joint had normal range of motion.

The left hip joint is in neutral position but range of motion is zero to 30 degrees of flexion, zero to five degrees abduction, no possible extension and ten degrees adduction. Left knee joint has ten degrees fixed flexion deformity.

Chest expansion 2 cm only and Schober's test indication reduced flexion at the lumbar spine.

There are no distal neurovascular deficits in either the lower limbs.

Regular examination and daily physiotherapy including mobilization exercises were done.

Result

The purpose of reporting this case is to emphasize on its rarity. Currently patient is on daily physiotherapy and oral medications with continued anti-tubercular drug regime.

The one year old right tubercular hip was ultimately diagnosed as having ankylosing spondylitis with insidious onset affecting bilateral hip and sacro-iliac joints resulting in stiffness of bilateral hip joints(left>right) and 10 degree of fixed flexion in left knee joint, now being treated correctly as ankylosing spondylitis.

Discussion

Although literature supports that non-rheumatic conditions causing sacro-ilitis might involve infections, osteomalacia, neoplasms and osteitiscondensulii as the underlying etiology.⁽²⁾

All tests initially were indicative of an infective pathology in the **right** hip joint confirmed with MRI and immunological analysis to be tuberculosis for which ATT was initiated. After one year the patient developed inflammatory pathology affecting bilateral hips and sacro-iliac joints confirmed to be ankylosing spondylitis after MRI bilateral hip and pelvis along with immunological analysis (HLA b27).

Hip involvement is commonly recognized by rheumatologists in ankylosing spondylitis patients.⁽³⁾

Tuberculosis may mimic such pathologies and it may be difficult to diagnose especially in bilateral cases. Some literatures also suggest anti-TNF therapy to be considered in patients with NSAID-resistant active axial disease who have concomitant hip disease.⁽⁴⁾

References

1. Saraf S, Tuli SM. Tuberculosis of hip- A current concept review. *Indian J Orthop* 2015;49(1):1-9.
2. Gupta A.D. Sacroiliac joint pathologies in low back pain. *J Back Musculoskelet Rehabil* 2009;22(2):91-7.
3. Vander Cruyssen B. Hip involvement in ankylosing spondylitis: epidemiology and risk factors associated with hip replacement surgery. *Rheumatology (Oxford)* 2010;49(1):73-81.
4. Vander Cruyssen B. Hip disease in ankylosingspondylitis. *Curr Opin Rheumatol* 2013;25(4):448-54.