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A rare case report at rare site tuberculosis of sacrum sacroiliac joint with gluteal abscess indication for drainage of cold abscess which usually treated by conservative treatment

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Abstract

Introduction: Tuberculosis remains a major public problem for the developing countries. Osteoarticular tuberculosis represents 2% to 5% of all cases of tuberculosis, in that the sacroiliac joint is involved in 3–9.7%. Isolated tuberculosis of the sacrum is rarely reported; with Sacroiliac joint infections represent a diagnostic dilemma for their vague and non-specific clinical presentation.

Case report: A 26 yr Female presented with Pain, Swelling over left Buttock since 2 month with Low Backache, Limping was present with Constitutional symptom Loss of Appetite, Low grade Fever, Weight Loss. Patient was investigated then planned for surgery incision and drainage curettage was done and sends for biopsy. After laboratory tests diagnosed Tuberculosis Osteomyelitis and after proper duration of ATT drugs patient was cured.

Conclusion: So it is rare case at rare site Sacrum with reactionary Sacroiliac joint Tuberculosis with Gluteal Abscess. Clinical diagnosis of sacroiliac joint infection includes a thorough history and a meticulous examination of the lower back and the sacroiliac joint. Tuberculous sacroiliitis should be differentiated with various disorders. After confirmation of diagnosis with support of clinical features blood report biopsy ATT drugs given with proper duration and doses in Follow up serial x rays and bloods test was done. The prognosis of sacral tuberculosis is good, if a rapid and correct diagnosis is made and adequate treatment is provided with proper duration and drugs doses Indication of drainage of cold abscess was because It large volume which cannot treated conservatively, pressure effect causing severe pain, difficulty in sitting, definitive diagnosis of Infective Pathology.

Keywords: Tuberculosis SI joint Osteomyelitis

Introduction

Tuberculosis can affect any bone and joint structures of the body. Osteoarticular tuberculosis represents 2% to 5% of all cases of tuberculosis and 11% to 15% of extra pulmonary tuberculosis [15]. The sacroiliac joint is involved in 3–9.7%. Isolated tuberculosis of the sacrum is rarely reported, which leads to a delay in diagnosis and subsequently persistence of a normally curable disease. Tuberculosis remains a major public problem for the developing countries. Sacroiliac joint infections represent a diagnostic dilemma for their vague and non-specific clinical presentation [19]

Case Report

A 26 yr Female presented with Pain Swelling over left Buttock since 2 month with Low Backache Limping present Constitutional symptom Loss of Appetite, Low grade Fever, Weight Loss Pallor was present in Past history had no other medical illness.

Local examination Tenderness and swelling over left side of buttock SI Joint Posterior aspect of Hip Joint Gaenslen test was Positive FABER Test was Positive Forced Flexion Abduction External Rotation of Hip joint is very painful Straight Leg Raising SLR Negative Neurology was normal. Patient was investigated Routine Blood test ESR CRP was raised X ray Chest x-ray was normal.

Lab Report

Microbiology	Result
AFB	Negative
PUS Culture	Sterile
Gram Stain	No Organism
PCR FOR TB	Mycobacterium TB Complex detected
GENE XPERT MTB	Detected Low



Fig 1: X RAY Sclerosis Wide – Left SI Joint Sequestra

MRI - Irregular Erosion with Marrow edema of left side of sacrum involving S2 S3 with left Gluteal 10-10-5 cm collection Left G. Maximus Pyriformis involved Both HIP Jt other Pelvic bone both S.I Jts normal Impression – Osteomyelitis of left Sacrum with Irregular septated presacral Gluteal with left Gluteal 10-10-5 cm collection

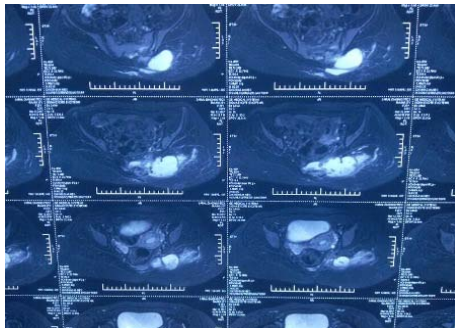


Fig 2: MRI

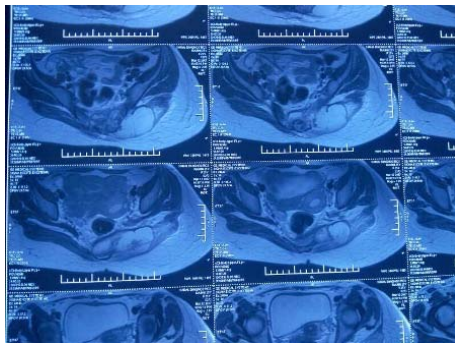


Fig 3: MRI



Fig 4: Incision drainage Scar

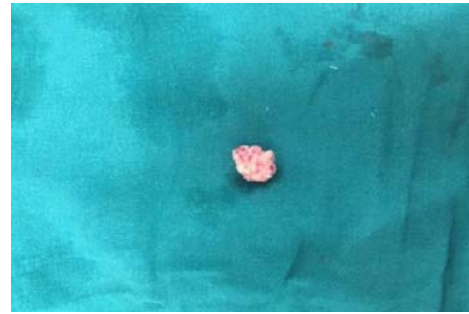


Fig 5: Bone Sequestra

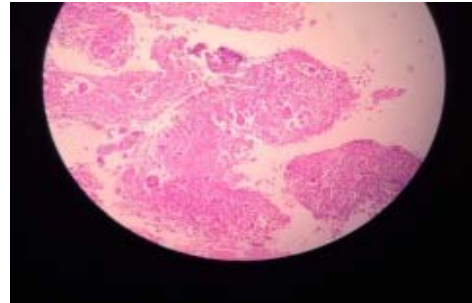


Fig 6: Laboratory Slide

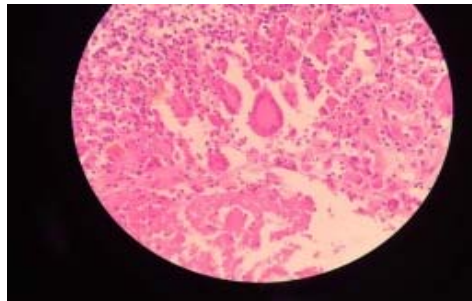


Fig 7: Laboratory Slide

Patient was then planned for surgery incision and drainage curettage was done from posterior aspect the inflamed tissue was send was for Biopsy the bone sequestra was drained out which was also send for biopsy.

Histopathology – Soft Tissue: Multiple grey friable soft tissue Well form epitheloid granulomas with langhran gaint cell chronic inflammatory cell caseation necrosis dead bony fragment [18, 19]

Bone: 2.5 cm Large amount of Caseation necrosis few chronic inflammatory cell dead bony fragment Impression Tuberculosis Osteomyelitis



Fig 8: Post-operative Outcome was good



Fig 9, 10: Post-operative Outcome was good

The Patient was started with ATT Anti Tubercular Drugs [47] and supportive. Patient Pain Swelling Limping was tremendously decreased, Outcome was satisfactory with constitutional symptom improved. At final follow-up, the patients had minimal discomfort over the affected joint and were fully weight bearing.

Discussion

Tuberculosis is a major health problem in developing countries. In 1779 by Percival Pott described the osteo articular tuberculosis represents about 3% of all tuberculosis and 15% of extra pulmonary tuberculosis. Bone and joint tuberculosis accounts for about 10.2% of patients with extra pulmonary tuberculosis of which 8.8% is spinal disease. [35, 36, 38]

Spinal location at the thoracolumbar spine in 80% of cases. Isolated tuberculosis of the sacrum is rarely reported in the literature [1, 2] with a frequency estimated at 5% by Pertuiset *et al* [37]. In a review of 63 cases of spinal tuberculosis by Lindahl *et al* [29], sacral involvement was found in just four cases, while none was involved in 107 patients in the series of Lifeso *et al*. [30, 39]

Spinal tuberculosis is often due to hematogenous spread of mycobacteria from primary foci in the lung and/or genitourinary tract. It is widely believed that the paravertebral venous plexus of Batson provides the primary pathway for dissemination of the tuberculous bacilli into the vertebral column. It is also possible that lymphatic drainage of the pleura or kidney may involve the para-aortic lymph nodes, which may secondarily involve the vertebrae. [9, 39, 41-43]

Clinical manifestations of sacral tuberculosis depend primarily on the age of the patient. Presenting symptoms and signs of sacroiliac tuberculosis [3-5] are often insidious and localized to that joint. Pain is the most common initial symptom [6-9]. Because of its location deep in the pelvis, most of the classical signs of a peripheral joint inflammation—swelling, redness and warmth—are not present so that infection may easily be overlooked [11-14, 25]. Buttock pain is invariably present in tuberculous sacroiliitis. The sacroiliac pain can be referred to the groin, posterior thigh, and occasionally below the knee, mimicking pain originating from the lumbar spine, the hip and the lower abdominal quadrant. There may be signs of femoral or sciatic nerve root irritation if the distended anterior joint capsule comes in contact with the lumbosacral plexus. In a series, Richter *et al*. [43] reported that 92% of patients were misdiagnosed and were initially treated for lumbosacral radiculopathy,

Tenderness over the SI joint and one or more positive SI joint stress tests are present in most patients [38, 39]. X-rays of the SI joint may be normal in the early stage of the disease [10]. Subsequently, haziness and/or loss of the joint line,

irregularity of the articular surface and subchondral erosions appear. In later stages, destructive lesions become more distinct and cavitations develop. Fusion of the SI joint can occur within 3-4 years of onset of medical treatment [16, 17, 48, 49, 50]

Tuberculous sacroiliitis should be differentiated from degenerative and post-traumatic arthritis; pyogenic infection of the sacroiliac joint; connective tissue disorders such as rheumatoid arthritis and systemic lupus erythematosus; tumors and tumor like conditions, and pigmented villonodular synovitis; inflammatory diseases such as sero-negative spondyloarthropathies, ankylosing spondylitis, psoriatic arthritis, Reiter's and Behçet's syndromes and inflammatory bowel diseases; familial Mediterranean fever with multisystem involvement including arthritis; osteitis condensans ilii; metabolic conditions such as gout pseudogout and hyperparathyroidism [26].

MRI of the sacrum usually reveals diffuse marrow edema that is hypointense on T1- and hyperintense on T2-weighted images. The tubercular lesions may be misinterpreted with other infectious diseases or neoplasms in MRI. [23, 24, 28, 29, 30]

CT is useful for imaging cortical bone. However, the early marrow changes in the vertebrae that precede the more gross erosive changes are difficult to visualize. [44, 46] Plain radiographs are extremely insensitive and do not detect vertebral involvement until at least 50% of a vertebra is destroyed.

Surgical biopsy is needed in diagnosis of certainty tuberculosis by a pathological study. This surgical biopsy was performed in our patient [33].

The diagnosis is made by isolation of mycobacteria either by AFB stain or by culture. CT-scan-guided needle aspiration can also done in early suspected cases. Pouchot *et al*. have reported that closed-needle biopsy technique was more accurate and reliable. The tuberculin skin test is usually positive in skeletal TB." A positive PPD is, however, not specific for current infection, and on occasion may be negative in active disease.

After confirmation of diagnosis ATT drugs given for 12 Months with serial x rays bloods test. The prognosis of sacral tuberculosis is good, if a rapid and correct diagnosis is made and adequate treatment is provided.

Conclusion

So it is rare case at rare site Sacrum with reactionary Sacroiliac joint Tuberculosis with Gluteal Abscess Indeed in MRI it was mentioned normal Sacroiliac joint. A clinical diagnosis of sacroiliac joint infection includes a thorough history and a meticulous examination of the lower back and the sacroiliac joint. Isolated sacral tuberculosis is exceptional and often causes a delay in diagnosis. It should always be

suspected in any process of the lytic sacrum, especially in endemic areas of tuberculosis, to prevent or at least reduce the morbidity of this disease, which is generally curable. Indication of drainage of cold abscess was because its large volume, pressure effect causing severe pain, large volume cannot be treated conservatively, difficulty in sitting, definitive diagnosis of Infective Pathology of Sacrum SI Joint which can be treated conservatively (FNAC or on clinical diagnosis starting ATT treatment) Evidence of calcification, sequester and joint destruction on X-ray or CT scan is suggestive of tuberculosis infection. In the early stages of the infection aspiration using a closed needle biopsy is recommended [21]. An open biopsy is essential when the aspirate yields no growth and in patients who present late with severe joint destruction and collection as in our patient. After confirmation of diagnosis with support of clinical features blood report biopsy ATT drugs given with proper duration (12 months) and doses in Follow up serial x rays and bloods test was done. The prognosis of sacral tuberculosis is good, if a rapid and correct diagnosis is made and adequate treatment is provided with proper duration and drugs doses.

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