CASE REPORT

Tuberculosis of symphysis pubis: A case report

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Symphysis pubis is an uncommon site of tuberculosis and only few cases have been reported in the literature. It is important to distinguish it from the more common entities like Osteitis pubis and Osteomyelitis of pubis symphysis to prevent delay in diagnosis and minimize morbidity and prevent complications. We report a rare case of tuberculosis of symphysis pubis in a 50-year-old Indian female from low socioeconomic status. Diagnosis is not difficult if one is aware of the condition. A high index of suspicion along with radiograph and fine needle aspiration led to the diagnosis. The patient had an excellent outcome following a complete course of anti-tuberculous chemotherapy for tuberculosis.

Key words: Musculoskeletal, osteitis pubis, tuberculosis

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INTRODUCTION

Osteoarticular tuberculosis constitutes about 15% of all extrapulmonary cases.[1] Tuberculosis of the pubis symphysis is still uncommon with only nine cases reported in the past three decades.[2] However, in the pre-chemotherapy era in the earlier part of the century, up to 100 cases have been reported, which have all been diagnosed in advanced stages.[2] Though rare, it nevertheless warrants greater emphasis to allow for differentiation from other infective or non-infective inflammatory conditions of pubic symphysis, especially osteitis pubis which is a self-limiting non-infective inflammation of the pubic symphysis. Osteitis pubis is usually a self-limiting inflammation of the pubic symphysis secondary to trauma, pelvic surgery, childbirth, or overuse.[3,4] Osteomyelitis of the pubic symphysis is mostly bacterial in etiology with risk factors being trauma, pelvic malignancies, urological, and gynecological procedures, and intravenous drug abusers.[5,6]

We hereby report a case of tuberculosis of pubic symphysis diagnosed early and treated accordingly with anti-tubercular therapy.

CASE REPORT

A 50-year-old female from low socioeconomic background presented at Lok Nayak Hospital, New Delhi, India in 2011 with complaints of a dull aching suprapubic pain for the past six weeks. The pain was persistent throughout the day and increased further on standing and walking. Patient also had a history of low grade evening rise in temperature and weight loss of 8 kg since three months. There was no history suggestive of any trauma, athletic exertion, infection or surgical procedure in the patient. There was no history of tuberculosis in self or in contact with patient with tuberculosis. On examination, deep tenderness was localized to pubic symphysis. There was no localized swelling and palpation did not reveal any inguinal lymphadenopathy. Rectal examination was also normal.

Radiograph of the pubic bones showed bony erosion of the public symphysis [Figure 1]. An initial diagnosis of osteitis pubis was made and the patient was prescribed rest, hot water fomentation and non-steroidal anti-inflammatory drugs (NSAIDS) for three weeks. Patient continued to have pain even after six weeks of treatment. Laboratory tests done on follow-up revealed moderately increased white cell counts (14,300/mm^3, Normal range: 4000-11000) and raised Erythrocyte Sedimentation Rate (54 mm/hr, Normal: <20 mm/hr). Mantoux test was non-conclusive. Chest radiographs were normal. MRI (Magnetic resonance imaging)/CT (computed tomography) scan of pelvis could not be done due to financial reasons, and so a decision was taken to do fine needle aspiration cytology (FNAC) from the affected region. Fine needle aspiration (FNA) from the pubic symphysis showed epithelioid cell clusters admixed with histiocytes in a background of caseous necrosis. In our case, patient had no active cough and no symptoms/sign of active TB and so no smear was

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Figure 1: X-ray of the pelvis showing bony erosion of the pubic symphysis

taken. Based on these findings a diagnosis of tuberculosis of symphysis pubis was made and patient was started on multi drug anti-tubercular chemotherapy comprising of Rifampicin, Isoniazid, Ethambutol and Pyrazinamide. One month following the treatment, patient improved symptomatically and started to gain weight. Patient was kept on anti- tuberculous therapy for 12 months. A repeat radiograph did not show signs of progression. Finally, follow up after 12 months of chemotherapy, the patient was symptom-free with a normal activity level without any signs of recurrence.

DISCUSSION

Osteoarticular tuberculosis is the second most common form of extrapulmonary tuberculosis next to lymph nodes.[7] The most common site for skeletal tuberculosis is the spine followed by the hip, knee and ankle joints. Tuberculosis can involve literally any bone or joint. With the rising incidence of human immunodeficiency virus (HIV) and multi-drug resistant strains, the incidence of extrapulmonary tuberculosis and atypical sites is on rise.

Tuberculosis of the pelvic girdle is primarily limited to the sacroiliac joint and less frequently with isolated involvement of ilium or ischial tubercle. Symphysis pubis tuberculosis, though rather uncommon, is nevertheless more frequent than one might believe. As a rule, this lesion begins insidiously in patient with tuberculosis that is localized elsewhere. The disease probably starts in the pubic bone and then spreads to symphysis. Thilesen was the first to describe tuberculosis of symphysis pubis in 1855 followed by Hennies who presented three cases in 1888. Since the introduction of effective anti-tubercular drugs and the general decline in incidence of tuberculosis, involvement of the pubis symphysis appears to have become very rare. To our knowledge, there are only nine cases reported in the last three decades.[2,8-14]

TB of the pubis has a varied clinical presentation, initially being asymptomatic to the most common presentation of an abscess and swelling in the hypogastric, perineal, medial thigh, or ischiorectal area.[13] The earliest symptom is a feeling of tiredness in the legs, and perhaps waking with a limp, without any demonstrable changes in the legs. Pain in one hip, without other objective changes than slightly limited abduction, may be an early symptom but the most common cause of the patient's seeking advice has been an abscess, either in the neighborhood of the symphysis or at the medial side of the thigh or in the anal region.[15] Pain in the region is frequently completely absent; neither spontaneous pain, nor pain on pressure over symphysis, or on compression of the iliac crests being complained by the patients.[16] Plain radiographs of pelvis may show erosion of the pubic rami on either side with widening of symphysis. Magnetic resonance imaging (MRI) may show abscess in hypogastric, perineal, medial thigh, or ischiorectal area. Aspirate from the swelling or sinus may be sent for polymerase chain reaction (PCR) and culture. Needle cytology may also help in clinching the diagnosis. Most of the authors have recommended thorough debridement and toileting of the cavities as a treatment strategy. However, with the advent of anti-tubercular agents the recovery and prognosis is better and in some cases they alone may suffice.

Differential diagnosis in such cases includes osteitis pubis, osteomyelitis, and adolescent osteochondritis of symphysis pubis.[17] It is essential to differentiate the above entities as the treatment modality as each condition varies. It is even more important to differentiate osteomyelitis and tuberculosis as a delay in diagnosis would result in extensive damage and hence add on to morbidity and residual deformities. Clinical presentation, however, is similar in all the above conditions and includes suprapubic pain sometimes radiating to the groins. Rectus and adductor spasm accounts for the bending noted while standing or walking. Osteitis pubis is self remitting, non-infective inflammation of the pubis usually seen during pregnancy, in athletes and following gynecological and urological surgeries or trauma to pubic symphysis. Patients complain of pain over pubis, but no presence of abscess formation. Symptoms are slightly lighter and decrease with time. Radiologically, one may find destruction of symphysis and pubic bones. X-ray examination may patchy sclerosis and irregular bony margins.

Pyogenic osteomyelitis is frequently caused by *Staphylococcus aureus*. Bone scintigraphy and MRI are more sensitive than plain radiographs, especially in the early stages. Three phase bone scan can be helpful in the differential diagnosis of osteitis and osteomyelitis. Increased uptake in all three phases leads to osteomyelitis pubis, whereas increased uptake in the mineralization or delayed phase

alone is typical for osteitis pubis. In the very early stages of osteomyelitis pubis, the increased uptake may be limited to one side. Debridement and curettage is the mainstay of treatment of osteomyelitis.

Adolescent osteochondrosis of pubic symphysis is rare entity and is characterized by pain and tenderness over the pubic symphysis without any abscess formation. MRI is the diagnostic modality of choice.

In conclusion, awareness of the disease helps detect cases on presentation. Timely diagnosis and intervention is thus a key to treatment and helps in reducing the morbidity and deformities.

AUTHOR'S CONTRIBUTION

SM managed the patient, conceived the idea for this manuscript, collected the data and wrote the draft. SG reviewed the literature and made changes to the draft. All authors have given final approval of the version to be published.

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