CASE REPORT

Tuberculosis of the pubic symphysis

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SUMMARY

Tuberculosis is one of India's public health problems. It involves various systems of the body, including the skeletal system. Osteoarticular tuberculosis is the second most common form of extrapulmonary tuberculosis next to lymph nodes and constitutes about 13% of all extrapulmonary cases. It is generally accepted that osteoarticular tuberculosis is the result of a haematogenous or lymphatic spread from a reactivated latent focus, usually pulmonary; however, previous infection is not always encountered, and in only 40–50% of the cases, it is possible to demonstrate another active infection site. The commonest site for skeletal tuberculosis is the spine followed by the hip, knee and ankle joints. Tuberculosis can involve literally any bone or joint. Pubic symphysis is an uncommon site for tuberculosis in the case of the skeletal system. We present a rare case of pubic symphysis tuberculosis in a 25-year-old woman presented to the general surgical department with a swelling in the right thigh region.

BACKGROUND

Tuberculosis (TB) of the pubic symphysis is a rare entity. Only 11 cases have been reported in the literature in past three decades. The first case of pubic symphysis TB in the literature was described by Jackson in 1923.¹

CASE PRESENTATION

A 25-year-old woman presented with chief symptoms of pain and swelling in the right thigh since past 2 months and fever since past 1 month. The pain was insidious during onset, with dull aching and was present over the suprapubic area and right thigh. It increased on exertion and relieved by rest and analgesics. It was associated with intermittent low-grade fever. There was associated swelling in the right thigh extending from the suprapubic region to the mid thigh. She had no history of weight loss, anorexia, cough, bony pain or any joint involvement. She had a history of tubal ligation. There was no history of diabetes, hypertension and TB. The patient had no history of any steroid intake, was serology negative for HIV and no history suggestive of any kind of immunosuppression on examination, swelling was tense, tender, non-fluctuant and non-compressible. Cough impulse was absent. Overlying skin was reddened and warm. Her gait was normal. Abdomen was soft and non-tender. There was no spinal tenderness.

INVESTIGATIONS

On investigation, the patient's haemoglobin level was 8.6 g/dL and total leucocyte count was 8990/mm³, of which lymphocyte was 20% and

neutrophil was 75%. Erythrocyte sedimentation rate was 30 mm/h. Liver and renal function tests were within normal range. Chest radiographs showed clear lung fields.

TREATMENT

The case was diagnosed as a right thigh abscess, so drainage was planned. Incision and closed-suction drainage were performed, and scraping biopsy was taken which contained bony debris. Suspicion of bone erosion was aroused and postoperatively X-ray pelvis was performed which revealed pubic bone erosion (figure 1). Histopathology of scraping biopsy revealed TB and definitive diagnosis of pubic symphysis TB was established. Antitubercular chemotherapy was started and the patient was discharged home with a closed-suction drain in situ. The patient was placed in category III (new extrapulmonary non-seriously ill) according to RNTCP (Revised National Tuberculosis Control Program, India) category division and started the drugs as recommended in RNTCP. In the intensive phase, isoniazid 600 mg, rifampicin 450 mg and pyrazinamide 1500 mg were given for 2 months, 3 days a week. In the continuation phase, isoniazid 600 mg and rifampicin 450 mg were given for another 4 months in 3 days a week schedule. In the follow-up, the drain was removed after 1 month and the patient was reviewed after a full course of antitubercular chemotherapy (figure 2).

Figure 1 Postoperative photograph showing pubic bones erosion and drain leads.

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To cite: Gothwal S, Varshney P, Mathur S, et al. *BMJ Case Rep* Published online: [please include Day Month Year] doi:10.1136/bcr-2013-202632

Figure 2 Photograph after 5 months showing healing.

OUTCOME AND FOLLOW-UP

The patient responded to antitubercular therapy and the lesion of the pubic symphysis healed after the therapy. The patient was followed up for a period of 6 months, after which the patient had no symptoms and she did not turn up.

DISCUSSION

TB is broadly classified in two categories, viz, pulmonary and extrapulmonary. Extrapulmonary presentation can be TB of any organ other than the lungs, such as the pleura (TB pleurisy), pericardium, lymph nodes, intestines, genitourinary tract, skin, joints and bones (in our case) and meninges of the brain.

TB of the symphysis pubis is a rare entity. Thilesen was the first to describe TB of the symphysis pubis in 1855. Nicholson² reported 11 cases of TB of the pubic symphysis, nine of which presented with cold abscess above the symphysis in the groin or thigh region. A review of the literature has revealed that most

cases presented late, owing to its insidious course and non-specific symptomatology. TB of the pelvic girdle is primarily limited to the sacroiliac synchondrosis and less frequently with isolated involvement of the ilium or ischial tubercle. Since the introduction of effective anti-tubercular agents and the general decline in the incidence of TB, involvement of the pubic symphysis appears to have become very rare, indeed. Various complications such as the formation of sinus or fistula, cold abscess and hypogastric mass have been reported because of which morbidity and mortality have been high.²⁻⁶ A delay in diagnosis has also been attributed to its resemblance to other inflammatory diseases such as osteitis pubis, juvenile osteochondrosis and pyogenic osteomyelitis of the symphysis pubis.² Thus, it is important to differentiate the entity from other mimicking conditions, such as osteitis pubis, juvenile osteochondrosis of the symphysis pubis and pyogenic osteomyelitis of the symphysis pubis.² Osteitis pubis is a self-limiting, non-infective inflammation of the pubis usually seen during pregnancy in athletes and following gynaecological and urological operations or trauma to the pubic symphysis. It is characterised by intense pain over the pubic symphysis but abscess formation is not seen. In case of osteitis pubis, initial radiographs may be normal or show patchy sclerosis, irregular cortical margins and marked rarefaction of pubis. Sequestrum formation is rare. The treatment comprises rest, moist heat application and non-steroidal anti-inflammatory drugs. Pyogenic osteomyelitis of the pubic symphysis may, at times, simulate the condition. Pyogenic osteomyelitis usually occurs after gynaecological and urological operations. Pyogenic infection of the pubis might be a common presentation than TB of the symphysis pubis. Confirmation of diagnosis is largely based on the isolation of microorganisms from the lesion.

Of the 11 cases of TB of the pubic symphysis reported in the literature in the past 30 years, six were treated surgically along with antitubercular chemotherapy and five were treated conservatively (table 1). Curettage with or without bone grafting is most often described by authors for operative intervention.⁷ Gulia *et al*⁸ reported a case of pubic symphysis TB with discharging inguinal fistula successfully managed with antitubercular chemotherapy without any surgical intervention. A literature review has revealed that most patients do well, irrespective of the mode of treatment. Bone grafting should be avoided as far as possible on an infected bed. However, on review of the literature, we found that even in the late presentation of TB of the pubic symphysis, antitubercular chemotherapy alone may suffice. Surgical intervention is needed only when complication arises.

Table 1 Tuberculosis of the pubic symphysis: cases reported in past three decades

Year	Author	Number of cases	Presentation	Management	Outcome
1986	Ker	1	Multiple discharging sinuses	Curettage+ATT	Healed
1990	Moon <i>et al</i>	2	Limping, groin pain and swelling	Curettage, bone grafting, plate fixation +ATT	Healed
1991	Rozadilla <i>et al</i>	1	Groin pain	Conservative	Healed
1992	Manzanique <i>et al</i>	1	Hypogastric cystic mass	Surgical excision+ATT	Healed
1995	Tsay <i>et al</i>	1	Suprapubic pain and tenderness	Surgical intervention +ATT	Healed
2000	Ramakrishnaiah <i>et al</i>	1	Discharging sinus	Conservative	Healed
2001	Balsarkar and Joshi	1	Hypogastric mass	Conservative	Healed
2006	Bayrakci <i>et al</i>	1	Suprapubic pain and tenderness	Surgical debridement and bone grafting+ATT	Healed
2009	Gulia <i>et al</i>	1	Discharging inguinal fistula	Conservative	Healed
2010	Bali <i>et al</i>	1	Suprapubic pain and tenderness	Conservative	Healed

Learning points

- ▶ Tuberculosis is a wide disease with various forms of presentations.
- ▶ Conservative management in the form of anti tubercular treatment is the initial treatment of choice for pubic symphysis tuberculosis.
- ▶ Surgical management including plating and bone grafting can be performed in late stages of pubic symphysis tuberculosis.
- ▶ Any abscess or collection must be drained effectively.

Contributors SG, SM, PV were general surgery residents. BS was the associate professor general surgery department.

Competing interests None.

Patient consent Obtained.

Provenance and peer review Not commissioned; externally peer reviewed.

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