

Case Report

Tuberculosis of the Right Pubic Bone Complicated by Abscess of The Right Thin Femoral Muscle: A Case Report

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Abstract

Tuberculosis of the pubic bone is a kind of bone tuberculosis, because the pubic bone is located at the bottom of the pelvis, and its surrounding tissues are rich in blood vessels and nerves, therefore, tuberculosis of the pubic bone is easy to invade the surrounding muscles and fascia, and cause inflammatory reaction. The reason of pubic tuberculosis complicating abscess is mainly caused by the infection of tubercle bacillus. After Mycobacterium tuberculosis invades the pubic bone, due to the poor blood supply of the pubic bone, the bacteria are easy to multiply locally, triggering an inflammatory reaction. As the inflammation intensifies, the local tissues become necrotic and liquefied, forming an abscess. After abscess formation, it will not only lead to increased pain, but may also invade the surrounding nerves and blood vessels, triggering more serious complications.

Keywords: Pubic bone tuberculosis; Femoral thin muscle abscess; Surgical treatment; Anti-tuberculosis drugs; Continuous rinsing with iodophor solution and hydrogen peroxide solution

Introduction

Tuberculosis of the pubic symphysis is a condition characterized by the presence of tuberculosis infection in the pubic symphysis, which is the joint located at the front of the pelvis where the two pubic bones meet. Tuberculosis is a worldwide public health crisis. The osteoarticular form is uncommon: it represents 2-5 % of all tuberculosis cases [1,2] and 11-15% of extrapulmonary tuberculosis. The main localization remains vertebral tuberculosis, which accounts for half of the cases [3,4]. Pubic localization is particularly rare.

Case Report

The patient was a 69-year-old woman. She reported right-sided lower abdominal pain that started six months ago and gradually worsened, with discomfort in walking, sitting and standing. Over the past month, the pain had worsened and was accompanied by low-grade fever and malaise. Physical examination showed a bulging mass in the right medial thigh, with obvious tenderness in the right pubic bone area as well as in the medial thigh (Figure 1a-c). B-mode ultrasonography showed an irregular hypoechoic mass from the right thigh to the pubic bone, which was considered to be a tuberculosis (cold abscess formation) (Figure 2). X-ray orthopedic position of the pelvis showed an uneven density in the right pubic bone (Figure 3). ECT bone scan showed an abnormally metabolically active focus of bone

metabolism in the right pubic bone, and tuberculosis infection was considered in conjunction with the medical history (Figure 4). Three-dimensional reconstruction and CT scan showed: right




Figure 1: a-c) Physical examination showed a bulging mass in the right medial thigh, with obvious tenderness in the right pubic bone area as well as in the medial thigh.

甘肃省人民医院
超声检查报告单

检查号: 545423 诊断时间: 5

姓名: [] 性别: 女 年龄: 69岁 临床诊断: 耻骨结核
 住院号: 01316490 床号: 1114 送检医生: [] 送检科室: 骨科干部病区
 检查项目: 彩色多普勒腹股沟 体表肿物超声检查



超声所见:
 右侧大腿根-耻骨处见大小约99x37mm的不规则低回声包块, 边界尚清晰, 形态欠规则, 似“哑铃状”, 内部回声不均匀, CDFI: 可见点状血流信号。

超声提示:
 右侧大腿至耻骨处不规则低回声包块, 多考虑结核 (冷脓肿形成)

Figure 2: B-mode ultrasonography showed an irregular hypoechoic mass from the right thigh to the pubic bone, which was considered to be a tuberculosis (cold abscess formation).

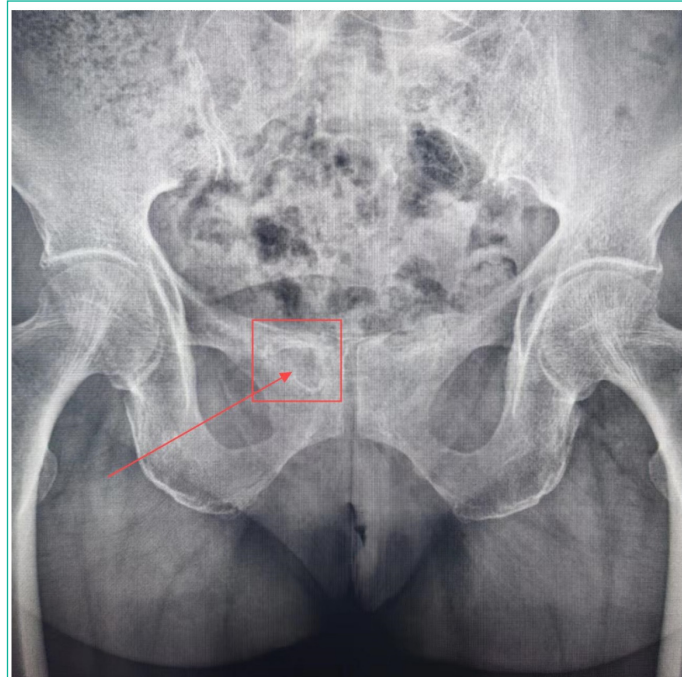
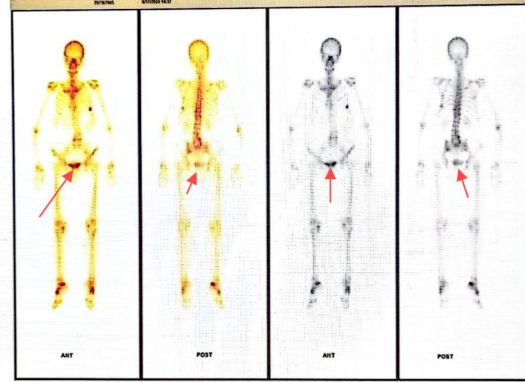


Figure 3: X-ray orthopedic position of the pelvis showed an uneven density in the right pubic bone.

pubic bone destruction, right pubococcygeus muscle, closed hole external muscle swelling, thin femoral muscle abscess formation (Figure 5a-d). MRI showed: right thin femoral muscle peripheral mass shadow and oozing, right pubic bone abnormal signal, combined with the history of the possibility of tuberculosis infection (Figure 6a-c) After admission, the right pubic bone and right medial thigh were examined and the lesion was resected under general anesthesia. Intraoperatively, bone destruction of the right pubic bone and abscess formation in the thin femoral and medial thigh muscle space were seen. Necrotic tissue and synovial proliferation around it were removed with a condenser knife, and the necrotic pubic bone was removed with a biting forceps. A drain was placed at the location of the lesion, and iodophor solution and hydrogen peroxide solution were continuously flushed (Figure 7a-b). Pathological examination showed: chronic granulomatous inflammation with visible

患者编号: 1316490 姓名: [] 性别: 女 年龄: 69岁 门诊号: []
 申请科室: 骨科干部病区 床号: 1114 住院号: 01316490
 显像剂: Tc99m-MDP 检查剂量: 25.00mCi 用药方式: 静脉注射
 检查项目: ECT全身骨扫描 临床诊断: 耻骨结核



影像学表现:
 静脉注射Tc99m-MDP25mCi3小时后行全身骨显像前位、后位:
 全身诸骨显影, 左前第5肋、右侧耻骨、右侧踝关节、双足跗骨可见放射性异常浓聚灶, 胸11-12、腰4-5椎体、双侧肩关节、双侧肘关节、双侧腕关节及双侧膝关节可见放射性轻度异常浓聚灶, 全身骨组织放射性分布左右对称, 未见明显异常浓聚灶及缺损区。双肾显影, 形态未见异常。

影像学诊断:
 1. 左前第5肋、右侧踝关节、双足跗骨、双侧肩关节、双侧肘关节、双侧腕关节及双侧膝关节骨质代谢不同程度异常活跃灶, 考虑骨-关节结核病变。

Figure 4: ECT bone scan showed an abnormally metabolically active focus of bone metabolism in the right pubic bone, and tuberculosis infection was considered in conjunction with the medical history.

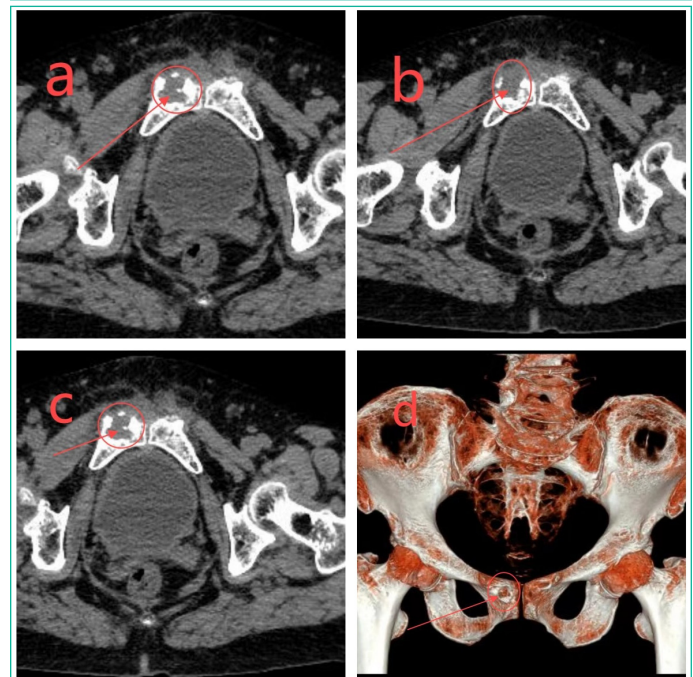


Figure 5: a-d) Three-dimensional reconstruction and CT scan showed: right pubic bone destruction, right pubococcygeus muscle, closed hole external muscle swelling, thin femoral muscle abscess formation.

caseous necrosis, tuberculosis was considered (Figure 8). Mycobacterium tuberculosis DNA test: positive for TB-DNA(+) (Figure 9). Regular oral anti-tuberculosis drugs: rifampicin, isoniazid, ethambutol pyrazinamide, and regular rechecks of liver function and renal function. After 1 year of examination, no new bone destruction or abscess formation was found.

Discussion

Drug therapy is the first choice for the treatment of pubic bone tuberculosis. Surgical treatment is needed when the following conditions occur: ① abscess formation ② bone destruction ③ spread of the lesion ④ ineffective drug treatment. On the basis of drug treatment and surgery, patients need to carry out rehabilitation exercises to restore muscle strength and joint mobility.

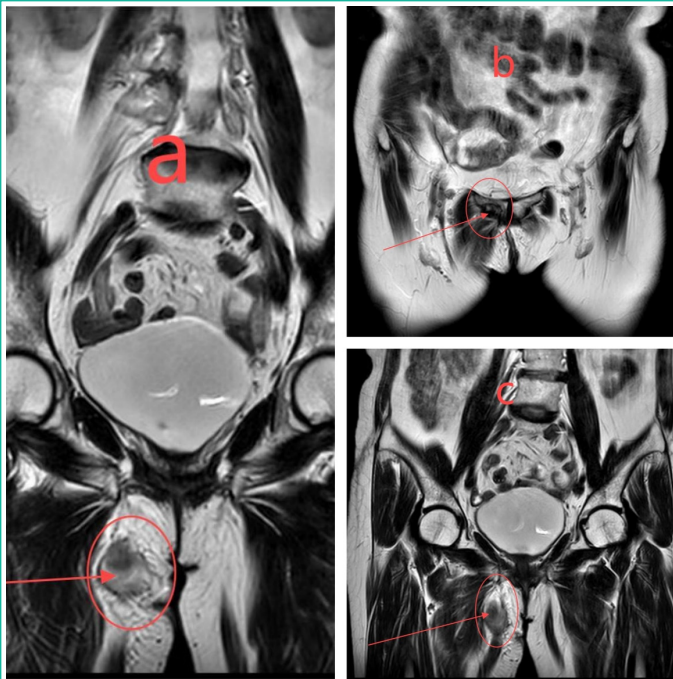


Figure 6: a-c) MRI showed: right thin femoral muscle peripheral mass shadow and oozing, right pubic bone abnormal signal, combined with the history of the possibility of tuberculosis infection.



Figure 8: Pathological examination showed: chronic granulomatous inflammation with visible caseous necrosis, tuberculosis was considered.



Figure 7: a-b) A drain was placed at the location of the lesion, and iodophor solution and hydrogen peroxide solution were continuously flushed.

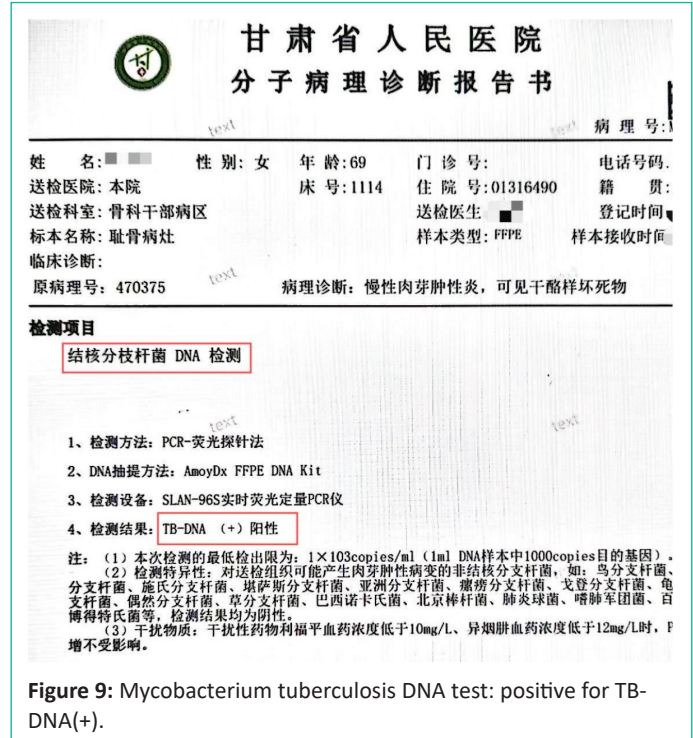


Figure 9: Mycobacterium tuberculosis DNA test: positive for TB-DNA(+).

Author Statements

Conflict of Interest

The authors have no financial disclosures or other conflicts of interest to report related to the content of this article.

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