Abbreviated Key Title: Sch J Med Case Rep ISSN 2347-9507 (Print) | ISSN 2347-6559 (Online) Journal homepage: https://saspublishers.com **3** OPEN ACCESS

Radiology

Osteomyelitis of the Pubic Symphysis: Just Think about it

Aghali Ibrahim^{1*}, Abdellah Bouelhaz¹, Salah Ben El Hend¹, Badr Slioui¹, Redouane Roukhsi¹, Nabil Hammoune¹, Abdelilah Mouhsine¹, Salah Bellasri¹

¹Radiology Department, Avicenne Military Hospital, Marrakech, Morocco

DOI: https://doi.org/10.36347/sjmcr.2025.v13i10.064 | Received: 26.08.2025 | Accepted: 17.10.2025 | Published: 23.10.2025

*Corresponding author: Aghali Ibrahim

Radiology Department, Avicenne Military Hospital, Marrakech, Morocco

Abstract Case Report

Osteomyelitis of the pubic symphysis is a rare condition, often overlooked and a source of diagnostic error. We report the case of a 29-year-old patient, with no significant medical history, who presented with severe pelvic pain associated with functional discomfort and difficulty standing. Pelvic MRI revealed an abnormality of the parasymphyseal signal of the two iliopubic branches in STIR hypersignal, associated with an irregularity of the edges, suggestive of pubic osteomyelitis. This diagnosis should be considered in the presence of any persistent febrile pubic pain. MRI is the examination of choice, allowing early diagnosis and appropriate management.

Keywords: Pubic osteomyelitis; Pubic symphysis; Pelvic pain; MRI.

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Introduction

Osteomyelitis of the pubic symphysis is a rare entity, representing less than 1% of bone osteomyelitis [1]. It most often occurs in athletes, postpartum or after pelvic surgery. Its clinical presentation is polymorphic: pubic pain, lameness, urinary disorders, fever, which can simulate arthropathy or a tumor. Diagnosis is based on imaging, with MRI being the gold standard. We report a case of pubic osteomyelitis in a young adult without any particular risk factors, illustrating the diagnostic difficulties and the decisive contribution of MRI.

OBSERVATION

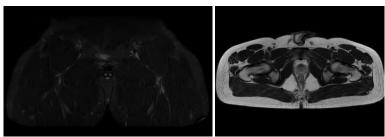
A 29-year-old patient, with no significant medical or surgical history, presented with progressive pelvic pain that had been developing for several days, associated with significant functional discomfort and difficulty standing.

Clinical examination revealed elective pain on palpation of the pubic symphysis, without local swelling or associated urinary signs. Biological parameters were not available at the time of diagnosis (ESR, CRP, blood count).

Pelvic MRI showed an abnormality of the parasymphyseal signal involving the two iliopubic branches, in STIR hypersignal, associated with an irregularity of the edges of the pubic symphysis with a discrete collection (Figures 1 and 2). This aspect was strongly suggestive of pubic osteomyelitis.

A puncture of the collection isolated a germ, Staphylococcus aureus.

The patient was put on appropriate antibiotic therapy with favorable clinical progress.



Figures 1 & 2: STIR Coronal and T2 Axial

Hypersignal of the pubic symphysis with discreet collection at the symphysis level.

DISCUSSION

Osteomyelitis of the pubic symphysis is an exceptional entity, often confused with non-infectious osteitis pubis, arthritis or even a tumor pathology. The most frequently incriminated germs are *Staphylococcus aureus* and Gram-negative bacilli [2].

Clinically, pubic pain, sometimes feverish, associated with discomfort when walking or standing is typical but nonspecific. The main differential diagnosis remains aseptic osteitis pubis, encountered particularly in high-level athletes.

MRI is the most sensitive examination, allowing early detection of bone and soft tissue abnormalities (infiltration, abscesses). It outperforms X-rays, which are often normal in the early stages, and CT scans, which are less sensitive to early damage.

Management is based on prolonged antibiotic therapy, adapted to the antibiogram when the germ is identified. In some cases, surgical drainage may be necessary. The outcome is generally favorable if the diagnosis is early.

CONCLUSION

Osteomyelitis of the pubic symphysis is a rare but important cause of pelvic pain. Its diagnosis should be considered in the presence of any persistent febrile pubic pain, particularly in young adults. MRI is the key examination for early detection and appropriate therapeutic guidance. Early diagnosis determines the functional prognosis.

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