

Osteomyelitis Pubis. Case Report

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ABSTRACT

Osteomyelitis Pubis is a rare condition that represents less than 2% of bone infections. It is not usually suspected and it can be misdiagnosed, as it can be mistaken for pubalgia that does not respond to treatment. This report may be useful to other traumatologists so as not to forget this extremely rare condition and reduce the cost of diagnosis and treatment.

Key words: Osteomyelitis; pubis; bone biopsy; *Escherichia coli*.

Level of Evidence: IV

Osteomielitis de pubis. Reporte de caso

RESUMEN

La osteomielitis de pubis es una enfermedad infrecuente (<2% de todas las infecciones óseas) que rara vez se sospecha y su diagnóstico suele pasarse por alto, se la confunde fácilmente con pubalgias que no responden al tratamiento. Consideramos que la comunicación de este caso puede serle útil al traumatólogo para no olvidar este cuadro extremadamente infrecuente y disminuir el costo del diagnóstico y el tratamiento.

Palabras clave: Osteomielitis; pubis; biopsia ósea; *Escherichia coli*.

Nivel de Evidencia: IV

INTRODUCTION

Bone infection of the pubis is a rare and under-diagnosed disease that is easily confused with non-infectious pubalgias. According to the literature consulted, it represents <2% of all osteomyelitis.¹⁻³ Its presentation is insidious; in general, it is a secondary condition to urological or gynecological surgeries, and it is disseminated by the hematogenous route. Diagnostic errors or late diagnoses are common due to its unusual frequency. The aim of this presentation is to help the orthopedist keep this condition in mind when establishing differential diagnoses.

CLINICAL CASE

A 70-year-old woman, with no history of chronic diseases, who reported having suffered a surgical abdominal condition with secondary peritonitis of appendicular origin.⁴⁻⁶ This condition had been treated in another public institution, in October 2018. In the second month after surgery, she had an eventration in the area of the surgical approach and groin pain radiating to the pubis. The condition was interpreted as pain secondary to eventration.

The symptoms persisted; she was discharged by her surgeon. In January 2019, she consulted with her GP, who requested complementary studies. The pelvic radiograph showed no evidence of injury. The abdominal ultrasound showed an underlying skin scar in the right iliac fossa, 1.4 cm from the cutaneous plane, a small laminar collection measuring 49.8 x 20.6 x 3.4 mm associated with adjacent soft tissue edema and a small inguinal hernia with fat content and spontaneous reduction; 14.3 x 8.2 mm hernial sac. No signs of eventration were observed.

The pubalgia persisted, despite treatment with common analgesics and even morphine derivatives (tramadol).

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In March 2019, the patient was referred to the Orthopedic Service; she was admitted wandering with a walker (she did not need it before appendicular surgery) and preferred to remain standing during the consultation.

In the anamnesis, she manifested night sweats and 9/10 pain in the pubis with groin irradiation. This pain was exacerbated when she was sitting.

Physical examination revealed a tumor on the scar with Celsus tetrad, which extended to the pubis. Hyperesthesia with severe limitation was found during the assessment of the pubis and both hips. The “closed book” maneuver in the pelvis exacerbated the pain in the pubic area.

Biochemical analyses yielded the following results: leukocytes 16 500 / mm³, erythrocyte sedimentation rate 105 mm in the first hour, and C-reactive protein 15.57 mg / l. The updated radiograph (Figure 1) showed an image of bone rarefaction in the pubic symphysis.



Figure 1. Frontal pelvis radiograph. Alteration of the bone structure of the pubis.

The studies were completed with MRI with and without gadolinium (Figure 2). The report of this study is hereby transcribed: “Osteitis pubis with cortical bone irregularity and bone edema in both pubic rami, predominantly on the right side; concomitantly, a loculated fluid collection with cellular debris and heterogeneous signal content is observed in the pubic symphysis, whose dimension is 24 x 18 x 35 mm, which appears as an associated infectious-inflammatory component, to be assessed with clinical history. An image compatible with partial rupture of the proximal insertion of adductor muscles is observed, predominantly on the right; myofibrillar edema of adductor muscles is observed predominantly on the left.”

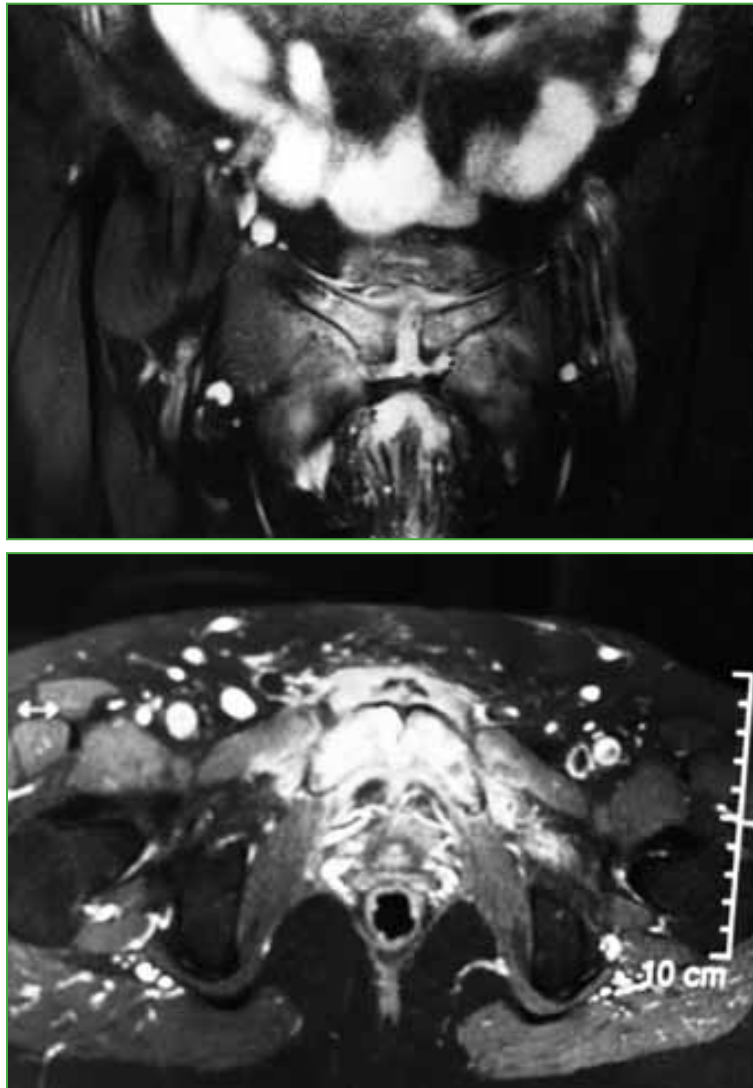


Figure 2. MRI. Bone edema reaction with cortical structure alteration.

With a probable diagnosis of infection, it was decided to perform a CT-guided bone biopsy,⁷ the sample was sent for bacteriological and pathological analyses (Figure 3).

The direct examination under Ziehl-Neelsen staining was negative; in culture, a gram-negative bacillus typed for *Escherichia coli* was found. The antibiogram reported susceptibility to trimethoprim / sulfamethoxazole, piperacillin, cephalosporins, and norfloxacin.

Trimethoprim / sulfamethoxazole 160-800 mg orally, every 12 hours, for 12 weeks was prescribed. After the first week of treatment, a significant improvement in the clinical presentation was observed. After two weeks, the patient was able to walk unaided.

After three months of treatment, the biochemical values normalized: leukocytes 8900 / mm³, erythrocyte sedimentation rate in the first hour 12 mm and C-reactive protein 6 mg / l. At 12 months after diagnosis and treatment, the patient had no symptoms.

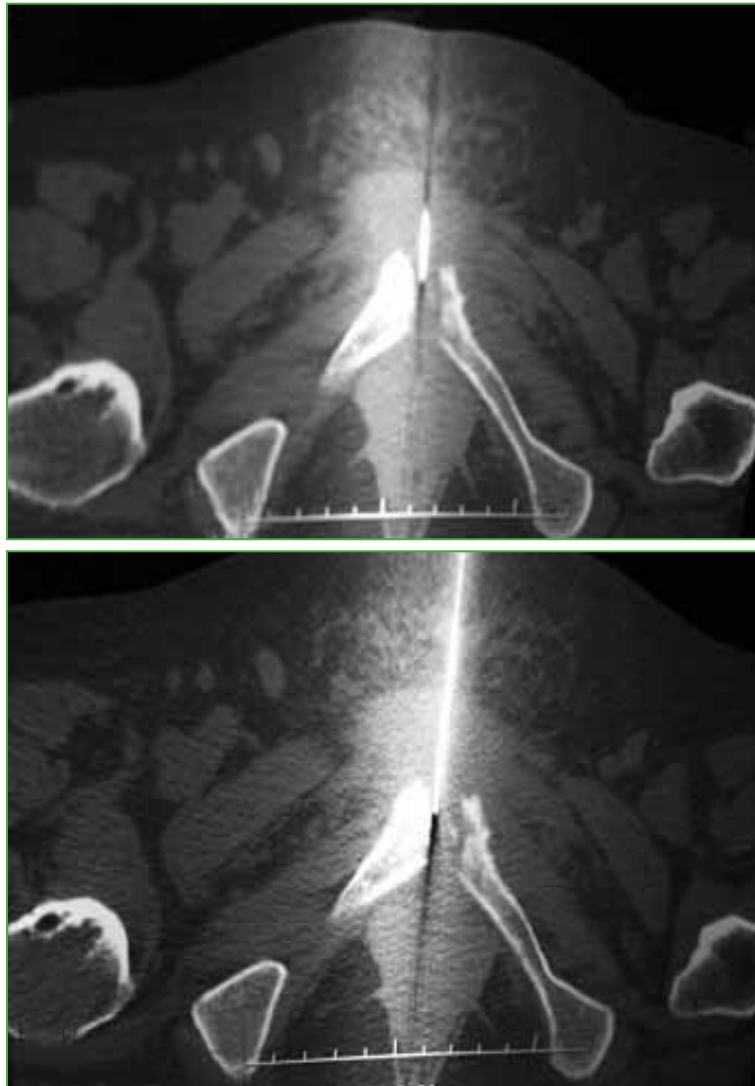


Figure 3. CT-guided bone puncture needle.

DISCUSSION

Osteomyelitis Pubis is a condition that does not distinguish between age or sex; the blood route is the usual form of infection, generally secondary to pelvic, gynecological or urological surgeries. In athlete patients, it can be easily confused with chronic pubalgias that do not subside with the usual treatment.⁸ The main diagnostic methods are biochemical analysis, MRI with and without gadolinium, and CT-guided bone biopsy with bone sampling that should be sent for bacteriological and pathological analyses. The typification of the germ with its antibiogram is not always satisfactory, although in our case, the result was positive and a pharmacological treatment was indicated for 12 weeks.

The improvement in the clinical presentation and the normalization of the biochemical parameters lead us to think that this infectious process has been controlled.

CONCLUSIONS

Osteomyelitis pubis is a very rare and possibly serious disease that can be confused with a pubalgia that does not respond to treatment, a very common condition in athletes. A correct interview, together with a meticulous anamnesis of the personal history, a meticulous physical examination and the appropriate use of complementary studies are the fundamental pillars to obtain an accurate early diagnosis that allows to prescribe a correct treatment. This attitude reduces the duration of the process and the suffering of the patient, and optimizes the use of financial resources.

Conflict of interests: The authors declare they do not have any conflict of interests.

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