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Osteomyelitis of the ischium: An often missed diagnosis, case study report

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The pelvic bones and especially the ischium are rare sites for osteomyelitis. The case of a 30-year-old man with osteomyelitis in the ischium is presented, where persistent pain was not accompanied by markers of acute inflammation. Details of further investigation and treatment are described. Osteomyelitis must be kept in mind as a possible differential diagnosis of persisting pain around the pelvis, and appropriate investigations carried out.

Keywords: Osteomyelitis, Pelvis, Ischium, Case report

Introduction
The pelvic bones and especially the ischium are rare sites for osteomyelitis.1 The incidence of this disease is low and unless pelvic osteomyelitis is borne in mind by the examining doctor the correct diagnosis may be missed during the early stage when the correct treatment would be most beneficial.2 Osteomyelitis of the ischium is usually described in children and adolescents, but rarely in adults.3 Therefore, its diagnosis in adults is generally late and usually at the stage of complications.4

The differential diagnosis of pain around the hip and groin is broad. Many potential causes of hip pain have overlapping symptoms or physical examination findings. A careful history and physical examination in combination with appropriate imaging and diagnostic tests generally leads to the correct diagnosis and appropriate therapy.5 The scarcity of this condition and the way its clinical signs imitate other diseases make it an intriguing diagnostic challenge.6 Early diagnosis and effective surgical and antibiotic management can control the infection; suppression of infection may last a lifetime.7

We report the case of an otherwise fit young adult male with active chronic suppurative inflammation (chronic abscess) with osteomyelitis of the ischium which was diagnosed and managed as hip adductor sprain for long time because of chronicity of the progress, the absence of acute inflammation signs and symptoms at presentation and the misleading history of sport trauma.

Case report
A 30-year-old male patient presented with persistent chronic pain recurring every several months in addition to swelling in the groin. Since the patient gave a history of sport injury he was diagnosed and managed as hip adductor sprain by non-steroidal anti-inflammatory drugs and rest several times. Because of failure to respond to previous management, a pelvis antero-posterior x-ray was done. This showed two circular osteolytic lesions in the right ischium with a diameter about 1 cm which resembled the appearance of Brodie abscesses (Fig. 1).

Consequently, computer tomography (CT) was ordered. This revealed a picture that had the appearance of an activated chronic osteomyelitis with two externally open osteolytic lesions of the right ischium with sclerosis of their boundaries and infiltration of their medulla. A swelling of the proximal part of the vastus medialis muscle with hypodense intramuscular areas was also seen (Figs. 2 and 3).

Thereafter, based on the result of the CT, a magnetic resonance imaging was done which confirmed this interpretation. A diagnosis was made of ischiatic osteomyelitis complicated by an abscess (Fig. 4).

During the time that these examinations were being carried out the patient’s general condition became more acute with high fever, generalized fatigue, and elevated acute inflammation laboratory tests (elevated white cell count, erythrocyte sedimentation, C-reactive protein). The patient was given two empiric antibiotics (ceftriaxone (Rocephin, Roche, France) 1 g every 12 hours on the first day and 1 g every 24 hours on following days and gentamicin 80 mg every 12 hours) with good response in improved general condition, decreased fever and pain.

Using a posterior surgical approach to the ischium, surgical drainage and debridement was carried out.8 Intra-operatively a huge amount of pus and necrotic muscle tissue was found, together with a connection...
of the abscess to the ischia bone lesions. Biopsy for pathological and microbiological studies was taken. After thorough debridement, wash-out, and curettage, a drain was put in and closure was made.

Microbiological study did not found any organism, this may be due to pre-operative use of antibiotics. Pathology results confirmed the pre-operative diagnosis of active chronic suppurative inflammation (chronic abscess) with osteomyelitis.

Discussion

The differential diagnosis of pain around the hip and groin is broad and includes intra-articular pathology, extra-articular soft tissue and tendon pathology, and mimickers, including the joints that make up the pelvic ring. Pelvic osteomyelitis is a rare but serious disease that can cause chronic pain around the hip and groin, it has been reported to represent 1–11% of all cases of haematogenous osteomyelitis. It was first described about 120 years ago.

Osteomyelitis of the pubis and ischium was first described in 1953 by Ingelrans and Lacheretz. Ischiatic osteomyelitis is usually found in children and adolescents, but has rarely been described in adults.

The rarity of the condition and the way in which its clinical signs imitate other diseases make it an intriguing diagnostic challenge and a high index of clinical suspicion is required. This case of chronic abscess with osteomyelitis of the ischium was neglected for months because of the absence of acute signs: fever, malaise, erythema, elevated inflammatory laboratory results, and because of the good general condition of the patient and the misleading medical history of recurrent sport injuries.

Osteomyelitis of the ischium is generally diagnosed in the late stage with complications: abscess, septicemia, secondary localizations. Laboratory tests can be misleading. In our patient, at the beginning of consultation the white cell count and the erythrocyte sedimentation were within the normal range. Radiological changes appeared late in the course of the disease or were so slight as to be detected only retrospectively.

The CT proved more helpful in the early diagnosis and localization of the lesion, but it requires very careful evaluation. Magnetic resonance imaging may prove to be even more useful. In our patient early antibiotic coverage combined with comprehensive debridement and surgical drainage resulted in rapid and complete recovery. If the patient had been diagnosed earlier and intervention offered in an earlier stage the patient’s suffering could have been much less and the management might have been less invasive and extensive, and less expensive.
**Conclusion**

The difficulty of diagnosis of osteomyelitis in this case emphasizes the importance of considering this rare cause within the differential diagnosis, and performing the appropriate investigations to rule it out. Treatment is based on early antibiotic therapy, with surgical drainage where necessary.

**Disclaimer statements** The mention of any drug names or diagnostic procedure in this article does not imply their endorsement by the authors. Statements of fact and opinion in this article is the responsibility of the authors.

**References**


