Recurrent Sacro-iliac Joint Abscess

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SUMMARY: A case of a 19-year-old paratrooper with recurrent sacro-iliac abscess is presented, and literature reviewed.

Introduction

Pyogenic sacro-iliitis is a relatively rare condition although it has been reported in the literature previously. We report a further case in a previously fit young soldier and discuss the diagnostic difficulties.

Case History

A 19-year-old paratrooper presented to the Rheumatology Clinic on 2 June 1989 with an acute onset of left buttock pain following a game of football although there had been no specific history of injury. The pain was localised to the left sacro-iliac joint.

There was no history of skin or eye problems, but he had a past history of non specific urethritis and of gonorrhoea two years prior to his admission.

A full blood count was normal but the erythrocyte sedimentation rate (ESR) was raised. Anti-nuclear factor, latex test for rheumatoid arthritis and treponema pallidum haemagglutination test were negative. A full GU screen was negative.

Plain X-rays were unremarkable. A technetium bone scan revealed increased uptake in the left sacro-iliac joint consistent with either trauma or inflammation. He responded initially to a course of anti-inflammatory tablets.

On 23 April 1990 he was re-admitted with a large abscess in his left buttock. Under general anaesthesia copious amounts of watery pus were drained but no organisms were isolated. Culture for acid fast bacilli was also negative.

On 8 May 1990 a Computerised Tomography (CT) Scan was performed revealing an irregular left sacro-iliac joint with periosteal bone formation. There was an increase in the soft tissue density around the left ilio-psoas muscles suggestive of an ilio-psoas abscess with sacro-iliac joint involvement.

Further exploration was carried out on 12 June 1990 and a distinct cavity was found as well as a track leading from the sacro-iliac joint to the previously noted abscess.

Debridement was carried out and Gentamycin beads were inserted and removed two weeks later.

The patient remained well until 4 July 1990 when he developed a further collection of pus just lateral to the lateral end of his left inguinal ligament. This was drained and a track leading down to the interior part of the left sacro-iliac joint was found. A course of Rifampicin and Flucloxacillin was started and continued for over 6 months.

He had a further recurrence of infection necessitating repeat exploration of the left sacro-iliac joint on 28 Oct 1990 and a sequestrum in the joint was removed.

A CT Scan carried out in Jun 92 revealed an ongoing left sacro-iliitis and osteomyelitis. On this occasion he was treated with Fucidin, Flucloxacillin and Penicillin which he continued for eight weeks.

He suffered from recurrent minor discharges from the scar which was eventually re-explored in Feb 93 but no definite signs of infection were found and in particular no tracks leading from the sacro-iliac joint.

There had been no further recurrence of infection up to the present date.

Discussion

Pyogenic sacro-iliitis is a relatively rare condition. Vyskocil reviewed the literature from 1878 to 1990 and found that a total of 166 cases had been reported (1).

Major predisposing factors include intravenous drug use, trauma or an identifiable source of infection elsewhere. The diagnostic procedure of choice was technetium bone scan with attention to the early perfusion phase.

The association between pyogenic sacro-iliitis and HLA B27 was discussed by Pereira (2).

Knockaert in 1989 described three patients with pyogenic sacro-iliitis (3), two had occurred spontaneously and the third following septic thrombophlebitis.

A review of the literature suggests that pyogenic sacro-iliitis could be missed initially. Wrong diagnosis included pyrexia of unknown origin, acute appendicitis, and iliopsoas abscess.

The technetium bone scan can be useful investigation although initially it may be negative.

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The commonest organism is *Staph aureus* although other bacteria incriminated include *Brucella melitensis* (4), *E coli* (5), *Salmonella cholerae suis* (6).

Pouchot reported 11 cases of tuberculous infection of the sacro-iliac joint (7). Buttock pain was the presenting symptom in all cases with radicular pain in over 50%.

He stated that sacro-iliac joint tuberculosis is frequently an isolated phenomenon and therefore direct sampling is necessary to establish the diagnosis.

In this presented case tuberculosis was thought to be responsible although the organism was never cultured.

The literature seems to suggest a favourable outcome for pyogenic sacro-iliitis provided that early clinical diagnosis and bacterial isolation is made. Our patient had several recurrences despite fairly extensive surgery.

It is well to be aware that amongst the not infrequent presentation of reactive inflammatory sacro-iliitis in young men, there may be similar cases to this patient.

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