



Acute pelvic pain associated with an intra-osseous lipoma of the hip joint

John Fraser

Discipline of General Practice

University of Newcastle,

Callaghan, 2308

New South Wales,

Australia.

Correspondence:

Fax : +61 (02) 6766 9873

Email : jdfrazer@doh.health.nsw.gov.au



Abstract

A case report of a 64-year old woman who presented with recurrent pelvic and hip pain secondary to an intra-osseous lipoma of the acetabulum (with intra-articular extension) is reported. An acetabular labral tear developed in association with this tumour. There was no history of trauma. Usually intra-osseous lipomas are asymptomatic. To my knowledge, this is the first case report in the literature of an intra-osseous lipoma of the acetabulum causing severe pelvic pain requiring laparotomy. Hip pathology should be considered in the differential diagnosis of recurrent pelvic pain. Intra-osseous lipomas tend to resolve spontaneously by fat necrosis altering their radiological appearance. Consistent with this case, a negative bone scintigraph does not exclude their presence.

Case

A 64 year old woman presented in March, 2002 with a one day history of severe right iliac fossa pain and rigors. The pain was worse with movement and relieved by defaecation. Her past history included hypertension, diverticulitis, appendicectomy and irritable bowel syndrome. Intermittent pelvic pain had been present for several years, however, pelvic ultrasound was normal. There was no history of trauma. Her temperature was 37.2 ° C. On examination, she was tender in the right iliac fossa with no guarding. Rectal examination demonstrated marked tenderness in the right iliac fossa. A diagnosis of diverticulitis was made, and the patient was treated with intravenous ceftriaxone and oral metronidazole. An abdominal computerised tomograph (CT) was normal.



In April 2002, severe right sided pelvic pain recurred. Colonoscopy and laparotomy were normal. A technetium 99 whole body scintigraph showed degeneration in the shoulders and lumbar spine. A lateral cutaneous nerve block and trial of oral ibuprofen was ineffective. A lumbo-sacral spinal CT scan showed spinal canal stenosis at the L4/L5 level; with disc protrusion from L2/L3 to L4/L5. Irritable bowel syndrome with lumbar spondylosis was diagnosed. There was persistent mild pain in the hip and pelvis after discharge from hospital.

In September 2002, severe right hip pain recurred with buttock radiation and antero-lateral thigh numbness. The pain was constant and worse at night, waking her. A plain radiograph showed a 1.5 cm osteolytic lesion in the right acetabulum (Figure 1). Pelvic CT and magnetic resonance imaging (MRI) demonstrated a cystic intra-osseous lesion with characteristics of adipose tissue and an acetabular labral tear.

Figure 1.
Antero-posterior and lateral (1b) pelvic radiographs.

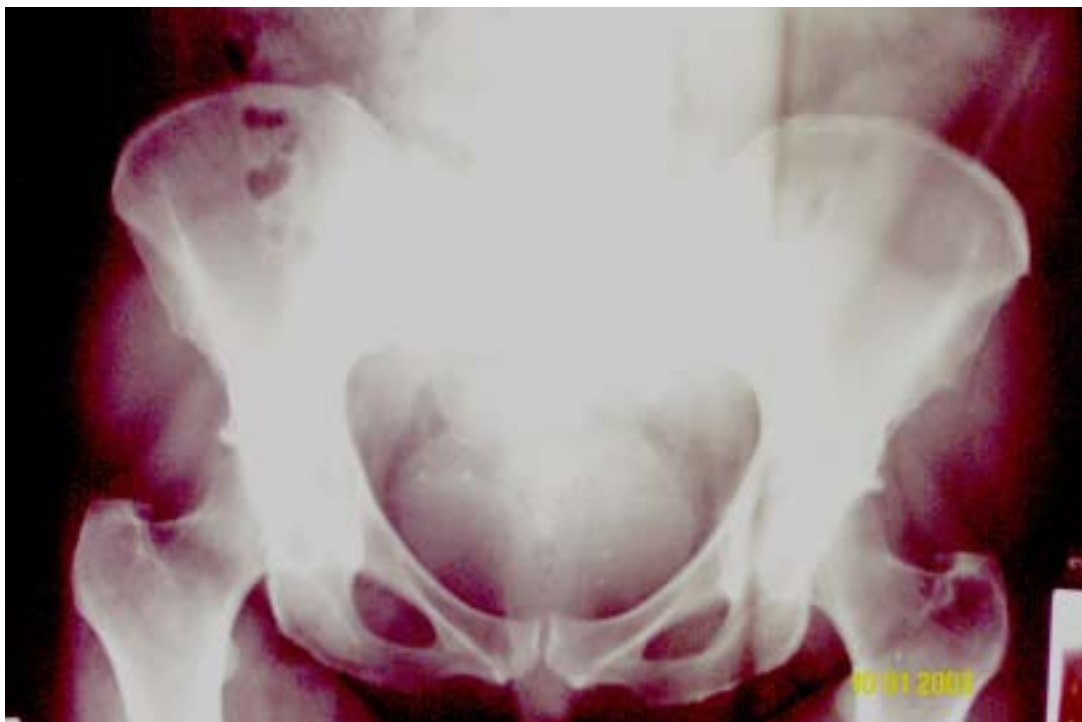




Fig. 1b

Full blood count, liver function, creatinine, electrolytes, calcium, phosphate, serum immunoelectrophoresis and parathyroid hormone was normal. The erythrocyte sedimentation rate was elevated at 37 mm.hr^{-1} .

At hip arthroscopy, an unstable superior acetabular labral tear was found. A chondral fracture of the acetabulum had developed in the acetabular fossa, where a fatty intra-osseous tumour had extended intra-articularly. Debridement of the unstable labral tear and articular cartilage relieved hip and pelvic pain. Histology confirmed an intra-osseous lipoma extending intra-articularly. The patient has remained asymptomatic six months after surgery.

Discussion

The acetabular labrum is a cartilagenous rim stabilising the hip. Tears of this structure are increasingly recognised as a cause of hip pain [1]. This patient described hip and



pelvic pain. Her hip pain is explained by the intra-articular extension of the lipoma in association with the labral tear. A possible explanation for this woman's pelvic symptoms, was that the intra-osseous lipoma's involvement of the cortical bone of acetabulum (with secondary labral tear) had caused referred pain.

Intra-abdominal lipomas can cause right iliac fossa pain requiring laparotomy [6]. In contrast, intra-osseous lipomas are rare asymptomatic tumours involving many bones including the pelvis [3,5]. They may be mildly painful, however, symptoms are usually relieved by anti-inflammatories [3,5]. Intra-osseous lipomas can rarely erode cortical bone causing pathological fractures or intra-articular extension [5]. A case of recurrent hip pain from an intra-articular hip lipoma and acetabular labral tear has been described previously in a 31 year old male following a football injury [4]. In contrast, this patient reported no history of injury. Referred abdominal pain associated with acetabular labral tear or intraosseous lipoma, to my knowledge, has not been reported previously in the literature.

This case illustrates that a negative bone scintigraph does not exclude significant bone pathology. Bone scintigraphs are useful in screening asymptomatic patients, but suffer from low specificity and at times, low sensitivity [2,7]. In a symptomatic patients with bone pain, MRI imaging is the investigation of choice as it can exclude smaller tumours of the cancellous bone [7]. Radiographs are usually specific for osteolytic lesions, but are insensitive when bone tumours involve cancellous bone only [7]. Intra-osseous lipomas tend to spontaneously resolve by fat necrosis altering their radiological appearance [3]. This patient's imaging is consistent with other reports of intra-osseous lipomas. Scintigraphs maybe normal; while others have increased uptake or a mixed pattern of normal and increased uptake [3]. CT usually shows



low-density lesions, which correspond to areas of adipose tissue (high T 1 weighed images) identified using MRI imaging [3,5].

This case describes a rare intra-osseous lipoma with extension into the hip joint. This tumour caused hip and referred pelvic pain. Hip pathology should be considered in the differential diagnosis of recurrent pelvic pain. A patient with significant nocturnal bone pain, requires conventional and MRI imaging to exclude a tumour of the cancellous bone. These tumours may not be visible on bone scintigraph.

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