Radiographic progression of septic arthritis of the hip

Prasad Ellanti,¹ Andrew Moriarity,² Sarah Barry,³ Tom McCarthy¹

¹Saint James's Hospital, Dublin, Ireland

²Department of Orthopaedics, St James's Hospital, Dublin, Ireland

³Department of Trauma and Orthopaedics, St James's Hospital, Dublin, Ireland

Correspondence to

Dr Prasad Ellanti,
prasad.ellanti@gmail.com

Accepted 23 August 2015

DESCRIPTION

A 63-year-old patient presented with a history of left low back and groin area pain. An MRI of the spine to rule it out as a cause identified a left iliopsoas abscess. The abscess was drained under CT guidance, which grew *Escherichia coli* and a drain sited. The patient clinically improved over the next 3 weeks with resolution of the abscess, however, the groin pain began to worsen. Subtle joint space narrowing in the hip was noted, and an MRI of the pelvis demonstrated secondary septic arthritis of the left hip. Aspirate of the hip grew the same *E. coli* isolated from the iliopsoas abscess. (The radiographic progression of the septic arthritis over a 6-week period from a normal joint (figure 1A) to joint space narrowing (white arrow, figure 1B, C) to joint destruction (white arrow, figure 1D) is demonstrated in this series.) The patient was already on the appropriate intravenous antibiotics. She underwent multiple hip joint washouts resulting in rapid improvement in inflammatory markers, and an excision arthroplasty (figure 1E) was performed 4 weeks later when the

inflammatory markers normalised. After the completion of 12 weeks of antibiotics, a further hip aspiration was performed to confirm eradication of the infection. A cemented total hip replacement (THR) was performed (figure 1F). The patient remains well and asymptomatic at 3-year follow-up.

Septic arthritis of the hip secondary to an iliopsoas abscess is rare.¹ The presence of an iliopsoas abscess can cause significant delays in the diagnosis of septic arthritis of the hip as both conditions can have similar symptoms. The radiographic features of septic arthritis are joint space narrowing, destruction of articular surfaces and sclerosis. Haematogenous spread is the most common cause of septic arthritis with *Staphylococcus aureus* being the most common organism in adults.² Septic arthritis of the hip is associated with significant morbidity. Early diagnosis and prompt treatment can prevent degenerative changes to the hip joint. Delayed treatment often necessitates an excision arthroplasty and a staged THR, once eradication of the infection is confirmed.

Figure 1 (A) Initial normal left hip radiograph. (B) Subtle joint space narrowing (arrow). (C) Complete loss of joint space (arrow). (D) Joint destruction with flattening of the femoral head (arrow). (E) Left hip excision arthroplasty with a temporary spacer. (F) Total hip replacement after 12 weeks of intravenous antibiotics, normal inflammatory markers and a negative hip aspirate.

CrossMark

To cite: Ellanti P, Moriarity A, Barry S, et al. *BMJ Case Rep* Published online: [please include Day Month Year] doi:10.1136/bcr-2015-212079

Learning points

- ▶ Radiographic features of septic arthritis include joint space narrowing, destruction of articular surfaces on both sides and sclerosis.
- ▶ Septic arthritis of the hip is a cause of significant morbidity.
- ▶ Early diagnosis and prompt treatment can prevent degenerative changes to the joint. Delayed diagnosis and treatment necessitates excision arthroplasty and a staged total hip replacement.

Contributors PE and AM performed the literature review; SB provided the image; TMC supervised the writing of the manuscript and treated the patient.

Competing interests None declared.

Patient consent Obtained.

Provenance and peer review Not commissioned; externally peer reviewed.

REFERENCES

- 1 Su CN, Hsieh DS, Sun GH, *et al.* Primary retroperitoneal abscess complicated with septic arthritis of the hip. *J Chin Med Assoc* 2006;69:51–3.
- 2 Goldenberg DL. Septic arthritis. *Lancet* 1998;351:197–202.

Copyright 2015 BMJ Publishing Group. All rights reserved. For permission to reuse any of this content visit <http://group.bmj.com/group/rights-licensing/permissions>.
BMJ Case Report Fellows may re-use this article for personal use and teaching without any further permission.

Become a Fellow of BMJ Case Reports today and you can:

- ▶ Submit as many cases as you like
- ▶ Enjoy fast sympathetic peer review and rapid publication of accepted articles
- ▶ Access all the published articles
- ▶ Re-use any of the published material for personal use and teaching without further permission

For information on Institutional Fellowships contact consortiasales@bmjgroup.com

Visit casereports.bmj.com for more articles like this and to become a Fellow