In summary, our case serves as a reminder that tumours of the cauda equina should be considered in the differential diagnosis of atypical sciatica, especially in the presence of pain at night or on recumbency, with or without co-existing neurological deficits. An increased awareness of this entity is needed for prompt diagnosis and management.


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Comment on the Article ‘Reactive Arthritis, β-Haemolytic Streptococcus and Staphylococcus aureus’ by D. N. Leitch and C. D. Holland

Sir—May we comment on the article ‘Reactive arthritis, β-haemolytic Streptococcus and Staphylococcus aureus’? [1]. The authors describe a patient with an acute onset of pain in the left shoulder and the right sacroiliac joint, fever and three blood cultures positive for β-haemolytic streptococci. For several reasons, including the relatively mild clinical course, the fast response to antibiotics and the normal CT scan of the sacroiliac joints, the authors propose a diagnosis of reactive arthritis (ReA). Since we feel strongly that the reported case represents a septic form of arthritis (SepA), we would like to contribute the following points.

Although the former sharp distinction between ReA and SepA has been blurred by the findings of small numbers of bacteria in the joints of ReA patients by immunohistology, polymerase chain reaction (PCR) and other techniques [2], the inability to culture bacteria is still part of recent definitions of ReA [3]. The

reflex changes) [3, 5]. This makes the early differential diagnosis difficult and explains why most of these patients are erroneously diagnosed as having a prolapsed intervertebral disc; in the later stages, however, widespread neurological damage becomes evident.

In spite of the many difficulties in establishing an early correct diagnosis, certain symptoms are more suggestive of tumour than of disc lesion. The presence of pain on recumbency is the most useful diagnostic feature and deserves emphasis and special enquiry; an unusual distribution of pain, for instance the presence of bilateral sciatica, and the presence of persistent or intractable pain despite conservative therapy, should also alert the clinician to the possibility of a cauda equina tumour [1–6]. In these cases, computed tomography is mandatory, or preferably a MRI to confirm the suspected diagnosis. Less valuable investigations are cerebrospinal fluid (CSF) examination (the protein content of the CSF is usually raised) or plain radiographs of the lumbar spine (they are usually normal, although there are some signs that are suggestive of cauda equina tumours, including the presence of a widening of the intervertebral foramen of the involved nerve root, an increase in the interpedicular distance >3 mm, or erosions of the bone or pedicle) [6].

Fig. 1.—Sagittal T1-weighted image after the administration of contrast material showed three intradural nodular lesions (arrows) with marked enhancement.
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...influenced by antibiotics [8] which streptococci were highly sensitive [4]. This rapid antibiotic therapy chosen — most probably a regimen to the therapeutic success was obviously due to the therapy in the case under discussion — all these preparation. [5]

A normal X-ray of shoulder and sacroiliac joints can be expected in acute arthritis; the latter was demonstrated in the clinically affected joints by isotope bone scan. The normal CT argues against bone destruction, but a more sensitive technique for changes in the cartilage and acute sacroiliac inflammation is dynamic MRI. Using this technique, acute and chronic inflammation of the sacroiliac joints can be detected regardless of its cause [4, 6]. A positive finding here could have resulted in a CT-guided biopsy [7] of these joints with subsequent culturing or PCR [8] of the material obtained. This technique is suitable not only in spondyloarthropathies, but also in cases of septic sacroiliitis. We have recently observed a case where streptococci were grown from synovial material from a sacroiliac joint in a young woman with septic sacroiliitis after delivery (M. Bollow and J. Braun, in preparation).

However, due to the rapid response to antibiotic therapy in the case under discussion, all these sophisticated procedures would have been unnecessary. The therapeutic success was obviously due to the antibiotic therapy chosen — most probably a regimen to which streptococci were highly sensitive. This rapid response to antimicrobial therapy also argues strongly against ReA, a condition which is not easily and never rapidly influenced by antibiotics [9].

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Reply

We do not share Dr Braun’s confidence that our patient’s glenohumeral and sacroiliac joint symptoms were due to septic arthritis, although this was the main differential diagnosis. This middle-aged man, previously in excellent health, not immunosuppressed or taking corticosteroids, had symptoms of infection with fever for 8 days without prior oral antibiotics. Under such circumstances, had the glenohumeral joint pain been due to septic arthritis, obvious physical signs of an acutely inflamed joint with erythema, warmth and an effusion would be expected. This reason, plus the total absence of joint fluid or pus on careful aspiration of both the glenohumeral joint anteriorly and the subacromial bursa carried out by an experienced senior rheumatologist, suggested to us that reactive arthritis rather than septic arthritis was the cause of this man’s asymmetrical oligoarthritis.

It is our view that dynamic MRI scanning and CT-guided biopsies of the glenohumeral joint or sacroiliac joint would not have increased the likelihood of obtaining fluid for culture.

Lastly, Dr Braun comments that the rapid response to antibiotic therapy argued strongly in favour of the diagnosis of septic arthritis. As reported in our case, the patient’s symptoms of fever responded rapidly to the antibiotic therapy, but the joint symptoms responded slowly over a 6 week period, and the patient continued to have symptoms of pain and stiffness in the shoulder joint and sacroiliac joint for several weeks whilst on NSAIDs. This man received antibiotics for 3 weeks, a time scale many would consider inadequate for the eradication of infection in septic arthritis, and yet he recovered fully with no recurrence at a 6 month follow-up.

Differentiating septic arthritis from reactive arthritis in these clinical situations can be difficult and we fully accept Dr Braun’s comments about the degree of uncertainty, but feel for the reasons outlined above that this man’s asymmetrical oligoarthritis represented a reactive arthritis.

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