Sacroiliitis as a presenting manifestation of infective endocarditis

Sirs,

Musculoskeletal symptoms are a recognized manifestation of infective endocarditis (IE) with a prevalence of 28 - 44% (1-3). It has been noted that musculoskeletal manifestations may antedate the diagnosis of IE by as long as months, the delay in diagnosis being frequently reported and having potentially dire consequences in such patients (3). Here we report a case of IE in which unilateral sacroiliitis was the presenting manifestation.

The patient, a 48-year-old man, was referred for a rheumatologic consultation due to suspectedankylosing spondylitis. Low back pain radiating to the right buttock and becoming more severe on walking had first appeared 50 days before the consultation. X-rays of the lumbosacral spine were assessed and found to be uninformative. Nonsteroidal anti-inflammatory drugs provided only partial relief of the pain and physiotherapy was ineffective.

A further evaluation was undertaken. Blood tests were positive for an elevated ESR (90 mm/hr) and mild leukocytosis on CBC (12,000 cells/ml). On bone scan isotope uptake was noted in the right sacroiliac joint (Fig. 1). The patient was seen by a rheumatologist, who elicited a history of fever up to 38.5°C which had begun 2 weeks before this consultation, along with arthralgia of the wrists, ankles and right knee.

On examination the patient was in good general condition with a temperature of 37.6°C. Cardiac auscultation revealed a 2/6 holosystolic murmur at the apex with radiation to the axilla. Moderate tenderness of the right buttock was present on palpation. Otherwise the examination was normal. The patient was hospitalized with the diagnosis of suspected septic right sacroiliitis. On the day of admission the WBC count was 14,900 cells/ml, C reactive protein was 72 mg/dl (normal - up to 6 mg/dl); ESR was 90 mm; and normocytic anemia with hemoglobin of 11.7 g/dl was present.

Transthoracic echocardiography showed posterior mitral valve vegetation as well as ruptured chordae of the posterior mitral leaflet accompanied by moderate to severe mitral regurgitation. During performance of the echocardiogram, rapid atrial fibrillation accompanied by signs of acute congestive heart failure appeared suddenly and the patient was immediately admitted to the Intensive Coronary Care Unit. Four blood cultures were positive for growth of *Streptococcus constellatus*. IE was diagnosed and treated with antibiotics, with complete resolution of fever as well as the back and buttock pain. Mitral valve replacement was recommended.

In surveying the literature, patients with rheumatologic presentations of IE have been misdiagnosed as having rheumatoid arthritis, gout,polymyalgia rheumatica,sciatica, Horton's disease, vertebral osteomyelitis, septic arthritis, hypertrophic osteoarthropathy or avascular necrosis before the true nature of their illness was appreciated (1-9). Similarly, in our patient the diagnosis of ankylosing spondylitis was suspected and IE was diagnosed more than 50 days after its first presentation, by which time the cardiac valvular apparatus was already severely damaged. Only two cases of IE presenting with septic sacroiliitis were revealed by a search of the MEDLINE (2, 10), and this report is probably the first detailed one in English. High vigilance and a high index of suspicion are needed for the early diagnosis of IE in patients with a musculoskeletal presentation. The literature suggests that the following factors may be useful as pointers to arouse this suspicion:

1. The absence of previous rheumatic disease or episodes of backache;
2. Intravenous drug abuse (4);
3. Acute synovitis in certain joints (single metocarpophalangeal joint, sternoclavicular joint, acromioclavicular joint), that are not frequently involved alone in the more common forms of arthritis (1);
4. Atypical presentation of polyarthritis, especially with low-grade fever, irrespective of the presence of rheumatoid factor or HLA B27;
5. Prolonged flu-like illness with arthralgias and/or myalgias, especially when accompanied by a significantly elevated ESR and/or new anemia;
6. Backache with fever;
7. Unilateral sacroiliitis.

Awareness of the problem may contribute to early diagnosis and prevent the complications of neglected subacute IE.

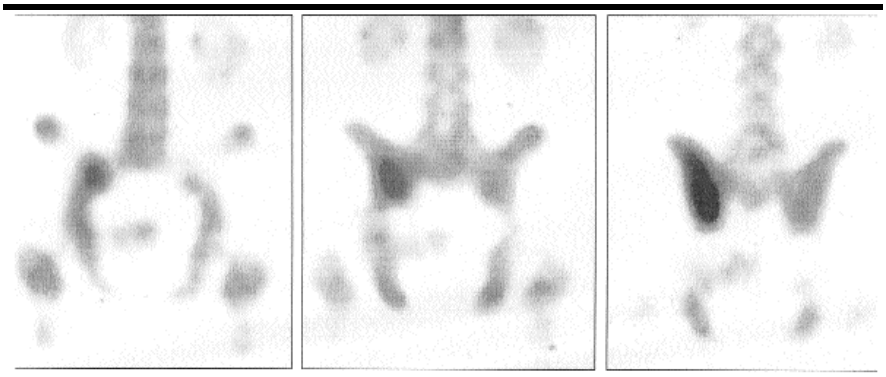

Fig. 1. Right sacroiliitis on bone scan.

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