Medicine in the Elderly

Osteitis pubis in a 78 year old female

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Summary: Osteitis pubis has been reported following pelvic surgery, childbirth and in athletes. We describe a case involving an elderly woman, in which none of the predisposing factors were present. Difficulties in diagnosis, with particular reference to the elderly, are highlighted.

Introduction

Deterioration in mobility is a frequent presentation in the elderly. We report on an unusual cause in an otherwise healthy active septuagenarian.

Case report

A 78 year old woman presented with a 2 month history of low central backache which radiated to the left groin. The pain was aggravated by walking and standing up. Three days prior to the onset of the pain, the patient had a shivering episode. She did not recall any other symptoms associated with this. Over the previous 2 years the patient had been treated with amiodarone for paroxysmal supra-ventricular tachycardia.

On examination she was exquisitely tender over the pubic symphysis and this was made worse by abduction of either hip joint. She had a normochromic normocytic anaemia (10.1 g/dl) with an elevated erythrocyte sedimentation rate (ESR) of 71 mm/hour. The alkaline phosphatase was also raised (253 IU). Radiological examination identified a destructive process in the pubic symphysis in keeping with an acute osteitis pubis (Figure 1). There was a growth of coliforms in an initial urine specimen but thereafter bacteriological tests, including several urine cultures and a high vaginal swab were negative.

Strict bed rest in hospital for a week resulted in considerable improvement in her symptoms. She was discharged but was soon readmitted with

Figure 1 Destructive changes in pubic symphysis.

recurrence of the pain. On this occasion, she was given a course of intravenous flucloxacillin and oral sodium fusidate. Throughout this period she was kept on bed rest and again had good symptomatic improvement. Three months following discharge, she remained asymptomatic. She was no longer anaemic and had an ESR of 46 mm/hour. Radiological appearance of the pubic symphysis had improved (Figure 2), urine culture was negative and further investigation of the urinary tract was not considered necessary.

Discussion

Beer¹ is credited with the first report of osteitis pubis and most of the early reports described the condition as a complication of urological surgery. Later it was observed following gynaecological procedures,² childbirth³ and as a result of repeated

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minor trauma due to adductor muscle pull in athletes.⁴ It is now usually considered to be non-infective.⁵ There were no such precipitant factors in this case. The history of a 'shivering episode' suggests a rigor, and at the time of presentation the patient had asymptomatic bacteriuria. It is conceivable that she overlooked other symptoms co-existent with the rigor, such as dysuria. In one series,² 10 out of 45 cases were associated with infection of the urinary tract. Patients were of either sex, and most were between 40 and 60 years of age. Most of the females were multiparous, averaging 4 pregnancies. The patient we describe had had 2 children, both normal deliveries.

Owing to congestion in the retropubic space, a urinary tract infection may cause venous retrograde flow with resultant hyperaemia followed by demineralisation. This is made possible because the veins in the posterior symphysis drain into the venous system of the lower part of the urinary tract and have few valves, many of which are incompetent.²

It is highly unlikely that the patient had osteomyelitis limited to the pubic symphysis. Septic osteitis pubis in females has almost invariably resulted from pelvic surgery.⁶ Although pyogenic infection of the pubic symphysis has been reported in intravenous drug abusers,⁷ haematogenous osteomyelitis of the pubis is rare; a review yielded a total of 49 cases in both adults and children.⁸ Furthermore, although the patient received antibiotic therapy, its duration fell far short of the recommended treatment of osteomyelitis,⁹ and there had already been symptomatic improvement.

To the best of our knowledge, this is the first report of osteitis pubis in an elderly person, in whom a urinary tract infection was the probable precipitant factor. Considering the increase in incidence of urinary tract infections in the over 65 group,¹⁰ the condition is either very rare or has been under-reported in this group of patients. Various reasons could account for the latter: the

disease is self-limiting⁵ and may be asymptomatic,¹¹ the pain may be wrongly attributed to osteoarthritis of lower spine and hip joints, and minor radiological abnormalities may be mistaken for the 'normal' age-related changes of the pubic symphysis.¹² The prevalence of mobility problems increases with age¹³ and this may have a protective effect as it reduces adductor muscle pull.

Once a diagnosis of osteitis pubis is made, the problem of distinguishing septic from non-septic inflammation remains. In either condition, patients may present with fever, anaemia and elevated ESR. Osteomyelitis should be considered following pelvic surgery, where there is suspicion of pelvic sepsis and in drug addicts. Radiological appearances may be helpful as the absence of sclerosis and erosions suggests a non-infective cause. Osteomyelitis is more likely to be unilateral and cause rarefaction of pubic bones.² Focal soft tissue calcification is present in tuberculous infection. The treatment of osteitis pubis consists of rest, anti-inflammatory drugs and physical therapy such as hydrotherapy. In intractable cases, steroid injection or even joint fusion may be necessary.³

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Figure 2 Showing improvement in changes shown in Figure 1.