Carcinoma of the prostate presenting as polymyalgia rheumatica

Sir, Polymyalgia rheumatica (PMR) is a relatively common disorder characterized typically by morning stiffness and aching of the shoulder and hip girdles, neck and torso in patients over the age of 50 [1]. Patients often complain of malaise, fatigue, anorexia, weight loss and fever [2]. The diagnostic criteria proposed by Jones and Hazleman in 1981 [3] are somewhat non-specific and are listed below.

1. Shoulder and pelvic girdle pain which is primarily muscular in the absence of true muscle weakness;
2. Morning stiffness;
3. Duration of at least 2 months unless treated;
4. Erythrocyte sedimentation rate (ESR) over 30 mm/h or C-reactive protein over 6 mg/ml;
5. Absence of rheumatoid or inflammatory arthritis or malignant disease;
6. Absence of objective signs of muscle disease; and
7. Prompt and dramatic response to corticosteroids.

We have recently encountered three patients who presented with symptoms of polymyalgia but also had a raised prostate-specific antigen (PSA) and were subsequently diagnosed with carcinoma of the prostate. Notably their symptoms resolved completely with treatment of their prostate carcinoma.

In the first case, a 72-yr-old male was referred to the rheumatology department with stiffness of his arms, thighs and back. His GP had found a raised ESR of 45 mm/h and had been treating him with steroids for 2 years for presumed PMR. He had a good response initially, but his symptoms returned as the steroids were reduced. On examination there were no significant clinical findings, but his investigations revealed a haemoglobin (Hb) level of 10.2 g/dl, ESR of 48 mm/h, alkaline phosphatase of 708 IU/l (25–120) and PSA >100 mg/l (0–4). A diagnosis of prostatic carcinoma with bony
metastases was made. He had a bone scan which showed intensely increased activity throughout the bony skeleton in keeping with widespread metastatic disease (Fig. 1). The patient was referred to the urologists and treated with cyproterone acetate. Within 10 days his mobility improved greatly. He was then commenced on luteinizing hormone-releasing hormone (LHRH) analogue injections and he was gradually weaned off steroids. Three months after his initial diagnosis of prostate carcinoma he was reviewed in the out-patient department with a PSA < 1 mg/l, off steroids and with no polymyalgic-type symptoms.

The second case is of a 75-yr-old male who was referred by his GP with tiredness and aching of his upper arms and a putative diagnosis of PMR. The tests performed by his GP showed Hb of 11.1 g/dl and ESR of 75 mm/h. His symptoms had started suddenly 2 months previously and he also described global stiffness of his legs and an aching behind his knees. He had no complaints of early morning stiffness, but had noticed that his walking was restricted to half a mile. He had a diagnosis of ankylosing spondylitis made 50 years previously. On examination he had a synovitis of his finger joints and bilateral knee effusions, but nothing else of note. The initial differential diagnosis was polymyalgia rheumatica, polymyalgic onset of rheumatoid arthritis, gout or a peripheral arthropathy associated with his ankylosing spondylitis. His blood results showed an ESR of 49 mm/h, C-reactive protein of 29 mg/l (0–10), negative rheumatoid factor and a normal urate, but his PSA came back at 40 mg/l and again he was referred to the urologists. A bone scan was performed which showed significantly increased activity in D9. A prostatic biopsy confirmed a poorly differentiated adenocarcinoma. He was treated as in the first case. Four months later this patient was well with no musculoskeletal symptoms, an ESR of 9 mm/h, C-reactive protein < 6 mg/l and an improved Hb of 13.8 g/dl.

The third case is another 75-yr-old man who had a flu-like illness followed by constant pain of his shoulders and upper thighs. His ESR was only 24 mm/h, but the GP made an initial diagnosis of polymyalgia rheumatica and gave prednisolone at 30 mg/day for 5 days. A week later he was no better and the GP phoned the rheumatology department for advice. We felt that PMR was unlikely and suggested further blood tests including a PSA. This came back at 58 mg/l and his ESR had risen to 47 mm/h. He was seen directly by the urologists and a digital rectal examination revealed a hard knobly prostate. His bone scan failed to show any evidence of metastatic disease, although he had degenerative changes throughout the skeleton. The patient was treated as in the previous two cases and his musculoskeletal symptoms have settled.

PMR is often a diagnosis of exclusion, but in up to 20% of cases the diagnosis is subsequently revised. Several cases have been reported where the diagnosis of PMR is associated with an underlying malignancy. During one patient’s evaluation an asymptomatic renal cell carcinoma was found [4]. Subsequent nephrectomy...
resolved complaints of stiffness, pain and a sense of weakness of the shoulder and hip girdles.

Further reports have reiterated the pitfalls in making a diagnosis of PMR. In three cases where the clinical and laboratory findings suggested PMR, only one case of PMR was confirmed [5]. One patient was found to have bronchial carcinoma and the other carcinoma of the breast with bony metastases. Naschitz et al. [6] have undertaken a literature search on rheumatic syndromes and occult neoplasia. They aimed to try and identify rheumatic syndromes associated with cancer and when further investigations should be carried out. A major problem is that malignant tumours may be complicated by the emergence of rheumatic symptoms, and conversely rheumatic disorders late in their course may be complicated by malignancy.

Cancer-associated rheumatic disorders may represent a paraneoplastic phenomenon, i.e. occur at a distance from the primary tumour or metastases and be induced by the malignancy through mediators such as hormones, peptides and antibodies [7]. The course of these disorders usually parallels that of the tumour and treatment of the neoplasia results in improvement of musculoskeletal symptoms [8]. Another way in which tumours may present is by direct invasion of the articular surfaces with tumour leading to an inflammatory synovial reaction. With regard to PMR, Naschitz’s group [9] suggested that a polymyalgia syndrome showing one or more atypical features is occasionally the first clinical expression of disseminated carcinoma.

The role of tumour markers in identifying those rheumatic conditions as the initial manifestation of malignancy has been studied. Widely available markers such as PSA have low sensitivity in the diagnosis of early cancer and are often non-specific. Some tumour markers have occasionally been shown to be raised in rheumatic patients without an underlying malignancy [10]. Overall the balance of opinion falls on the side of not searching extensively for occult malignancy in the initial evaluation of rheumatic syndromes because it is not cost efficient. However, if the rheumatic disorder is accompanied by findings suggestive of malignancy, for example PMR with atypical features, most agree that a wider screen for occult neoplasia is justified.

Prostate cancer is a common condition and is treatable. We propose that a digital rectal examination or at least a PSA should be included in the work-up of all male patients thought to have PMR, particularly if they have any atypical features.

I. KANE, S. MENON

Department of Rheumatology, St. Richards Hospital, Chichester PO19 4SE, UK
Accepted 27 June 2002
Correspondence to: I. Kane. E-mail: ingrid2710@hotmail.com


