Tuberculosis as a cause of chronic epididymo-orchitis in a male Caucasian

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INTRODUCTION

Epididymo-orchitis is generally an illness of short duration which resolves with rest, analgesia and appropriate antibiotics. The case of a previously fit Caucasian male presenting with left-sided chronic epididymo-orchitis is reported. The cause was tuberculosis, apparently localized to the scrotum.

DISCUSSION

This case demonstrates that tuberculosis should be considered as a cause of chronic epididymo-orchitis in all males regardless of age, origin, socioeconomic class or the apparent presence or absence of disease elsewhere.

The incidence of tuberculosis worldwide has been increasing since the mid-1980s. Each year there are 8 million new people infected with 5000–6000 new cases in the UK alone. Contributing factors include immigration, human immunodeficiency syndrome, poverty, homelessness, poor drug compliance and multidrug resistant strains (Cotton, 1996). Immigration has substantially changed the epidemiology of tuberculosis in the UK, its incidence being 25 times higher among groups from the Indian subcontinent and black Africans compared with the white population. In the former group the frequency of non-pulmonary tuberculosis is nearly 80 times higher (Ormerod, 1996).

Genital tuberculosis is uncommon, occurring mainly in men aged 20–40 years, but recently it has been more frequent in the older male. Typically it involves the seminal vesicles and epididymus; however, prostatic tuberculosis is rare. Presentation is usually with a swelling in the scrotum, which may or may not be painful depending on whether it is acute or chronic inflammation (Koyama et al, 1988). The epididymus and testis may be tender to palpation and a coexisting hydrocele is usual. They may have symptoms of frequency, dysuria and haematuria if tuberculosis is present elsewhere in the urinary tract. Tuberculous epididymo-orchitis can be the first manifestation of genitourinary tuberculosis (Ferrie and Rundle, 1983). The testes alone are rarely infected but tend to be associated with tuberculous epididymitis (Peterson et al, 1993) as a result of direct spread. Abscesses and scrotal sinuses may develop. It was once thought that tuberculous epididymo-orchitis was usually associated with bilateral renal involvement (Gow, 1976), but this is not the case as associated renal disease is by no means universal.

Epididymal infection can occur in one of three ways: haematogenous seeding, lymphatic spread or retrograde canalicular spread via the vas deferens and indeed the epididymus can act as a reservoir for the infection. Clinically 30–50% of patients have no history of pulmonary tuberculosis (Ferrie and Rundle, 1983). Scrotal ultrasound is commonly performed for

CASE REPORT

A 69-year-old retired white businessman was referred with a 6-week history of painful swelling of the left side of his scrotum. He had received two courses of broad-spectrum antibiotics from his GP which failed to relieve his symptoms. There was no history of scrotal trauma. There was nothing of note in his past medical history apart from angina and chronic laryngitis. On examination the right side of his scrotum was entirely normal, but the left was tense, tender, warm and approximately three times normal size. A scrotal ultrasound demonstrated a normal left testis with a large hydrocele. The left epididymis was enlarged in it's transverse diameter with high vascularity, consistent with epididymitis.

The patient was started on oral antibiotic therapy. After 1 weeks treatment the left side of the scrotum had reduced slightly in size but remained painful. Eighteen ml of clear fluid was aspirated from the hydrocele and was sent for culture and sensitivity. No organisms were found. By this stage he had been under review for 9 weeks and had taken antibiotics for a total of 24 days. He requested orchidectomy as he felt unwilling to tolerate the discomfort. At operation an abscess cavity was found surrounding the epididymus and extending close to the external ring. Tissue and a swab was sent for culture and sensitivity and for acid-fast bacilli and the left testicle was removed. His postoperative recovery was complicated by a discharging sinus which resolved with irrigation.

The histology report showed extensive areas of necrosis throughout the testis and epididymis with prominent epitheliod cells and many Langhans' type multi-nucleated cells. The appearance was that of florid granulomatous inflammation of the testis and epididymis consistent with a mycobacterium infection. Initial stains for acid-fast bacilli were negative. Subsequently acid-fast bacilli were seen in the tissue sample and swabs using oramine phenol counterstained with Ziehl-Nielsen stain. There was a positive culture using Lowenstein Jensen medium, the mycobacteria were sent to a reference laboratory and the species identified as *Mycobacterium tuberculosis*. He was started on antitubercular treatment. His chest X-ray and intravenous urogram are normal and he remains well 9 months after diagnosis.

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the identification of scrotal pathology. Sonographic findings of non-tuberculous epididymitis are typically those of diffuse enlargement of the epididymus and a uniform decrease in echogenicity, while in tuberculous epididymitis there is prominent involvement of the tail of the epididymus with marked heterogeneity of the echo texture of the lesion (Kim et al, 1993). In chronic cases calcification may be seen within the epididymus. The sonographic findings of tuberculous epididymo-orchitis are varied and non-specific, and differentiation from a testicular tumour is difficult.

Medical treatment is with appropriate chemotherapy, and a short course of 6 months is usually effective. Orchidectomy is reserved for cases where there is difficulty in ruling out a testicular tumour or in patients who fail to respond to medical therapy (Koyama et al, 1988). Surgery may be required to treat a stricture of the vas deferens. HM

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In the Public's View...

The National Plan: is that it?

Is that it? We've endured months of leaks and froths. Alan Milburn intermittently incandescent with rage, Tony Blair railing about public sector dinosaurs, threats of operating 24 hours a day and what do we get? More targets, a commitment to be patient-centred, nurses given the right to admit and discharge patients, and consultants not able to do private practice for their first 7 years. For all the build-up about the most radical shake-up of health care in England since Boadicea rode her chariot to war, the National Plan for the NHS is radical only in the sense of the man who, having habitually worn black socks with his pinstripe suit and Oxford brogues, decides after some months of heart-searching and asking his friends to wear dark grey instead.

In many ways we should be thankful. Previous attempts at revolution weakened the NHS. The 1974 lurch into over-management was bad enough, but the 1989 embracing of business ethics was a disaster. Each time another poorly performing doctor is found, the media churn out their litany: 'First there was the Bristol cardiac affair, then there was the GP Harold Shipman?' Whatever is thought of the surgical practice in Bristol, a unit and hospital desperate to protect its image and its finances was unlikely willingly to accept that something was wrong. Another wholescale reorganization might well have made the NHS worse, if only because the staff are so disillusioned.

Tony Blair should have followed his admission that we didn't have enough money, doctors and nurses with cool reflection but instead he let the media set the agenda. Once you've admitted 20 years of underfunding, how can anything sensibly be expected to change in much less than half that time again? Yet time and again the media picked up on some 'scandal' of missed appointments or dirty floors, forcing ill-considered political reaction. And now we have the National Plan, which will entitle every child in nursery to a free piece of fruit each school day.

A year before Blair set up his action teams, the Association of Community Health Councils of England and Wales (ACHCEW) set up an independent commission. It is not just waiting lists that are a political football (although the National Plan has moved to waiting times), it is the whole NHS. That is not healthy. The commission recommended putting more distance between the NHS and politics by giving the NHS its own constitution. If the government wanted a radical solution to health care, they could have waited for the commission's findings (Hutton, 2000), a large part of which are concerned, as the government and patients are, with the lack of accountability in the NHS.

In June, I wrote to Mr Milburn, enclosing a number of articles I'd written about the NHS. I received a disappointing reply from an NHSE civil servant on his behalf in August which merely summarized the General Medical Council's proposals for reaccreditation. Such a response is disappointing, but not as disappointing as the complete lack of response to ACHCEW's commission. HM

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