Prostate cancer presenting as neuropathic urinary retention

Introduction

Early in doctors' careers all are taught the importance of recognizing symptoms suggestive of cauda equina compression (saddle anaesthesia, disturbance of bowel and/or bladder function, lower limb weakness) associated with back pain and its urgent management. These symptoms should be regarded as just as serious even in the absence of back pain to help prevent irreversible damage. This article presents such a case, which led to a diagnosis of metastatic prostate cancer.

Discussion

Urinary retention is most commonly caused by benign prostatic hypertrophy. It can occur with prostate cancer although this is usually mechanical as a result of the enlarging primary tumour causing bladder outflow obstruction. It is rarely neuropathic in origin and secondary to metastatic disease as in this case. This is the first case the authors are aware of in which neuropathic urinary retention is the primary manifestation of a prostate cancer. Despite this rarity, its symptom of presentation (saddle anaesthesia) should ring alarm bells for prompt management.

There have been previous reported cases of painless urinary retention secondary to central intervertebral disc prolapse with no preceding signs or symptoms suggesting an underlying neurological insult (Sylvesser et al, 1995). These cases have been successfully treated with urgent neurosurgical intervention. Acute urinary retention has also been reported as the first sign of a renal carcinoma as the result of metastatic spread and subsequent spinal cord compression (Tintinalli, 1986). Urgent decompression or radiotherapy is required in these cases.

Benign tumours directly compressing the sacral nerve roots causing urinary retention have been reported which include a sacral meningocele (Chovnick, 1971) and an intraspinal epidermoid tumour of the sacral canal (Tipton et al, 1975). There have also been reports of acute urinary retention being caused by herpes zoster infection of the sacral nerve roots (Acheson and Mudd, 2004), and by sacral myeloradiculitis (Vanneste et al, 1980).

Conclusions

This case highlights the importance of investigating any symptoms suggestive of

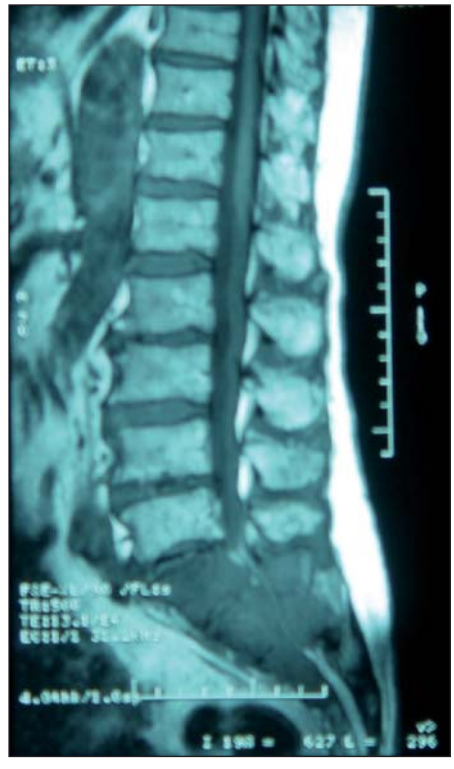
Case Report

An 81-year-old man was admitted as an emergency with his first episode of urinary retention. On the previous day he noted increased frequency of micturition and experienced incomplete bladder emptying. He also stated that over the preceding 3 weeks he had numbness in both buttocks, but no back pain or lower limb weakness. He had no significant past medical history and was otherwise well with no weight loss or bony pain. He initially saw his practice nurse for the numbness, but in the absence of other symptoms this was just observed with no further investigation arranged at that time.

On admission to hospital, physical examination showed a bladder distended to the umbilicus. Rectal examination revealed a small firm prostate with a lax anal tone and reduced squeeze pressure. Bilateral pinprick sensory loss was also noted in S3/4 dermatomes. There was no motor weakness. Examination was otherwise unremarkable. He was catheterized with a residual volume of 1500 ml clear urine. Urinalysis was normal. Prostate-specific antigen (PSA) was 70 ng/ml, but otherwise bloods were normal (including bone profile).

An urgently arranged magnetic resonance imaging scan showed marked sacral destruction but no signs of intervertebral disc prolapse. Abnormal tissue was seen involving the bony canal causing compression of the thecal sac and surrounding the S1, S2 and S3 nerve roots (*Figure 1*). Chest X-ray was normal. Repeated abdominal and neck examinations were normal and he reported no haematuria. Given his raised PSA (and no other evidence of a possible primary tumour) transrectal ultrasound and biopsy of his prostate was performed. Ultrasound suggested a peripheral zone tumour, which was confirmed on core biopsy revealing an adenocarcinoma (Gleason score 3+3) with perineurial invasion present. The patient was commenced on hormone manipulation therapy and dexamethasone and referred for urgent radiotherapy. He underwent a fractionated course of radiotherapy but never regained bladder function. He was discharged with a long-term catheter, but collapsed and died at home 3 months after hospital discharge.

Figure 1. Sagittal magnetic resonance imaging showing marked sacral infiltration as a result of metastatic disease, but no intervertebral disc prolapse.



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spinal cord or cauda equina compression. Despite this case being a rare presentation of a common condition its symptoms can have serious consequences if not acted upon. Symptoms of saddle numbness, bladder and/or bowel dysfunction even in the absence of back pain should be urgently referred, investigated and treated to minimize loss of function irrespective of what the cause of the symptoms may eventually turn out to be. BJHM

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Sylvesser PA, McLoughlin J, Sibley GN, Dorman PJ, Kabala J, Ormerod IEC (1995) Neuropathic urinary retention in the absence of neurological signs. *Postgrad Med J* **71**(842): 747–8

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Tipton JRW, D Ambrosia RD, Corkill G (1975) Intraspinal epidermoid tumour of the sacral canal presenting with urinary retention. *J Urol* **113**(6): 880–3

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Morale is at rock bottom...again

In a satire on panel games that poked fun at the more intransigent of trade union representatives, panellists were eliminated if trapped into uttering certain phrases, such as, 'The aspirations of my members…' That is the only phrase I remember but the British Medical Association (BMA) is especially good at one that would fit the list well. It's not always the same, but the meaning is the same, which is that morale is as low as it can go.

According to Jonathan Fielden, current chair of the Central Consultants and Specialists Committee (CCSC), 'morale has slumped to an all-time low'. What, I wonder, is the SI unit of morale: the oomph perhaps? Someone with lots of oomph usually has good morale, so it'll do.

Who knows what a standard amount of oomph is. The SI unit of pressure is the pascal, but the standard atmosphere is 100 kilopascals. It's more satisfactory, I think, to make normal morale equal to one oomph, so perhaps Fielden's 'all-time low' is in the order of millioomphs, following on from what the *Lancet* in 2005 described as 'catastrophic collapse in morale among doctors': which sounds on a par with the Tories' economic Black Wednesday in 1992 when the UK was forced to withdraw the pound from the European Exchange Rate Mechanism.

But morale can't have been very high before that. In the 2001 CCSC annual report, then chair Peter Hawker reckoned 'consultants… are at the end of their tether', however many millioomphs that is. He was preceded by BMA Council chair Sandy Macara who wrote in *Hospital Doctor* in 1994 of 'Professionals whose rock-bottom morale is reflected in premature retirement…'.

The earliest cutting in my file is from 1990, also from *Hospital Doctor*, when according to medically qualified journalist James Phillips 'morale is at a very low level'. I do not doubt that the only reason I have no earlier examples is that my files do not go back any further. A fable about crying wolf comes to mind, as well as a certain sadness that these protestations of doom seem more often connected with doctors' pay and working conditions than they are with patients. But who will pay attention if our representatives protest that: 'Doctors are a little unhappy at recent developments'? Visions of rocky bottoms are more likely to make the headlines.

Just because media stories emphasize doctors' preoccupation with their personal rewards does not mean that it is doctors' first concern. Conversations around the hospital are much more about managers foisting ill-thought out schemes upon us: schemes dreamed up in rooms not far from 10 Downing Street. We are about to get a new Prime Minister, and it would be nice to think that the NHS will be given a bit of breathing space. Don't count on it. As another BMA chair said: 'When will the government realise that you do not motivate a highly-educated segment of the workforce by denigrating them and by imposing on them by diktat transparently ill thought-out ideas?' I guess it won't be any time soon, because that was said by Paddy Ross in 1994. BJHM

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