Beware of groin pain in the elderly athlete

EV Williams, JL Hughes, D Pemberton, ME Foster

CASE REPORT

A 62-year-old man, who was a keen amateur swimmer, presented to the orthopaedic department in June 1996 with a 4-month history of lower back pain, which had developed after he had been swimming. Mild tenderness was noted over his left sacroiliac joint, straight leg raising was normal, and resisted movements failed to reproduce his pain. He was advised to alter activity and discharged.

His pain persisted, however, and 10 months later had become localized to his right groin. Further review in the orthopaedic clinic revealed a full range of movement of his hips, but extreme abduction was painful. Plain radiographs of the lumbar spine showed degenerative changes. His pain was attributed to lumbar root irritation, and so he was referred for physiotherapy.

By October 1997, 16 months after initial presentation, there was no real improvement. A soft tissue magnetic resonance imaging scan confirmed spondylosis and degenerate discs, but no actual disc prolapse. As he was still troubled with pain, specifically in the right groin, a general surgical opinion was requested.

Localized tenderness was demonstrated at the deep ring, but no herniation noted. 'Gilmore's groin' was suspected, but his advancing age aroused suspicion, therefore other causes needed to be excluded. There was nothing else to find on clinical examination of his abdomen, but rectal examination revealed a hard nodular prostate. A prostate-specific antigen (PSA) test was performed, and this was significantly elevated at 168 ng/ml (normal <4 ng/ml). Plain pelvic X-rays were obtained, and reported as sclerotic lesions involving left ischium, right superior pubic ramus and adjacent pubic bone (*Figure 1*). An isotope bone scan later revealed multiple areas of increased activity consistent with metastatic disease (*Figure 2*). A subsequent tru-cut biopsy confirmed carcinoma of the prostate.

Figure 1. Pelvic X- ray showing sclerotic lesions involving left ischium, right superior pubic ramus and adjacent pubic bone.

INTRODUCTION

Groin pain can present a difficult clinical diagnosis because of the variety of conditions that may be responsible. Persistent pain can be a frustrating diagnostic problem for both athlete and physician, and its management must be based on an accurate diagnosis. The literature over recent years discusses many cases of groin pain in young athletes. Here we highlight such a case in an elderly sportsman.

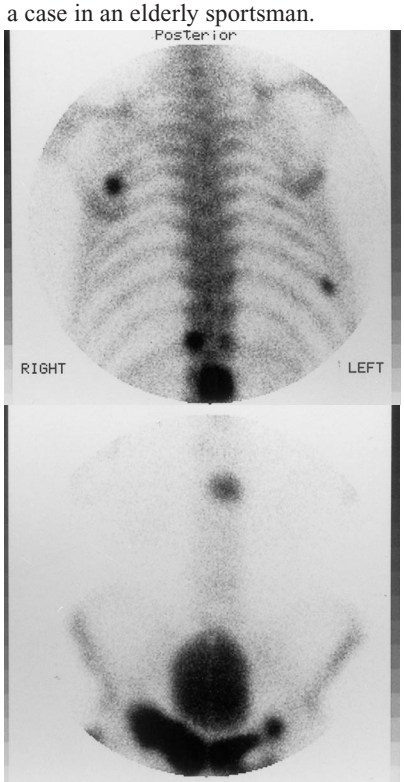

Figure 2. Isotope bone scan showing multiple areas of increased activity consistent with metastasis.

Mr EV Williams is Specialist Registrar in General Surgery, **Dr JL Hughes** is Surgical Senior House Officer and **Mr ME Foster** is Consultant General Surgeon in the Department of Surgery, and **Mr D Pemberton** is Consultant Orthopaedic Surgeon in the Department of Orthopaedics, Royal Glamorgan Hospital, Llantrisant CF72 8XR

Correspondence to: Mr EV Williams

DISCUSSION

Groin pain is a common problem among athletes (Rehnstrom and Peterson, 1980). The groin, however, is difficult to define and is best described as the area where the legs meet the abdomen, and includes the perineum. Pain in this area can arise from several origins (*Table 1*), and may occur acutely from more than one source. However, other causes of groin pain may occur. These include conditions involving the urinary tract, and gynaecological causes in the female. It is therefore important to remember that these common conditions can occur, and athletes are prone to the same conditions as the rest of the population.

Gilmore (1991) describes a syndrome of groin disruption, where patients present with chronic groin pain, which may be aggravated by sudden movements. The onset may be insidious, with few patients recalling a specific injury. There may be an absence of visible external signs, but a cough impulse and marked tenderness in the affected groin may be noted.

The diagnosis of groin pain therefore depends on a careful history and examination, and appropriate investigation. There remains a group of patients who have unexplained groin pain. These may undergo lengthy periods of conservative management with numerous radiological investigations. A review by Fricker (1997) describes a systematic approach to the management of groin pain in athletes. He suggests a selection of appropriate diagnostic tests (*Table 2*), and describes useful management steps for each clinical situation.

TABLE 1.
Common causes of groin pain in athletes

Muscle	Adductor, iliopsoas, rectus femoris strains
Tendon	Adductor tendinopathy, conjoint lesions (Gilmore's groin)
Ligament	Iliolumbar, sacroiliac lesions
Bone	Osteitis pubis
Nerves	Obturator, ilioinguinal neuropathy
Joint	Osteoarthritis, synovitis of hip
	Spine pathology (including disc prolapse)
Other	Sportsman's hernia

TABLE 2.
Investigations for groin pain in athletes

Investigation	Condition
Plain X-ray	Osteoarthritis, osteitis pubis, slipped femoral epiphyses
Bone scan	Stress fracture, osteomyelitis, avascular necrosis, (metastasis)
Ultrasound scan	Muscle haematoma, tear
Peritoneal radiography	Inguinal hernia (herniogram)
Computed tomography/ magnetic resonance imaging	Disc pathology, radicular lesions and other lesions as above
Nerve conduction studies	Ilioinguinal, obturator neuropathy

CONCLUSION

There are a variety of conditions causing groin pain, and athletes are not only prone to sports-related injuries, but also to other common causes. It is therefore crucial to establish a comprehensive history, incorporating a relevant systems review. Consideration must be given to the patient's age and gender, as other differential diagnoses become evident with advancing maturity. Hence a metastatic origin must be considered for any persistent 'skeletal' pain in the elderly, with a primary tumour in the breast in women and prostate in men the likeliest sites. This makes proper physical examination the cornerstone of diagnostics in the elderly. HM

Fricker PA (1997) Management of groin pain in athletes. *Br J Sports Med* **31:** 97–101
Gilmore OJA (1991) Gilmore's groin. *Sports Medicine and Soft Tissue Trauma* **3:** 12–14
Rehnstrom P, Peterson L (1980) Groin injuries in athletes. *Br J Sports Med* **14:** 30–6