

Spontaneous rectus sheath haematoma mimicking an enlarged urinary bladder

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INTRODUCTION

Rectus sheath haematoma (RSH) is an uncommon but well-described clinical entity. It is defined as an accumulation of blood in the sheath of the anterior rectus muscles. The functional characteristics of the rectus abdominis muscle are such that the commonest site for a haematoma is in the lower abdomen.

RSH may occur spontaneously or may be the result of trauma, surgical intervention or the use of anticoagulant therapy (Du Toit et al, 1983). They are important as they can mimic many intra-abdominal conditions and laboratory and clinical investigation may be misleading. Accurate and early diagnosis can avoid unnecessary surgery. This article presents a case of RSH which was referred as a suprapubic mass.

DISCUSSION

The true incidence of RSH is unknown and only 500 cases have been reported in the literature up to 1990 (Zainea and Jordan, 1988). It is more common in females (3:1) aged between 50 and 60 years of age. It is caused by a rupture of the inferior epigastric artery (or one of its branches) or a tear of the

fibres of the rectus sheath itself (Gocke et al, 1981). The rectus abdominis muscle lacks the posterior sheath below the arcuate line and in this region only the transversalis fascia separates it from the prevesical space posteriorly. The most important predisposing factor is anticoagulant therapy whereas repeated fits of coughing is the most common precipitating factor.

RSH can be difficult to diagnose as the patient's signs and symptoms may mimic other intra-abdominal pathologies. RSH may directly irritate the bladder causing symptoms of urgency and frequency (Backwinkel, 1965), because below the arcuate line the rectus sheath is deficient posteriorly.

This patient had a suprapubic mass and became oliguric, leading the authors to believe that he was in urinary retention and that the mass was an enlarged bladder. However, urethral catheterization produced little urine and biochemical analysis of fluid drawn on aspiration confirmed this to be serum. It was when the cystoscopy revealed a small contracted bladder and the computed tomography (CT) scan (Figure 1) showed a mass sepa-

rated from the bladder that the correct diagnosis was made.

In general a diagnosis of RSH can be made with ultrasound but more accurately with CT scanning. An early diagnosis is important as predisposing factors may then be eliminated or optimised and an unnecessary laparotomy avoided (Ducatman et al, 1983) as the vast majority of RSH are treated conservatively.

In this case the initial clinical examination and investigations suggested a diagnosis of urinary retention. It was after biochemical analysis of the aspirate, cystoscopy and CT scanning that the correct diagnosis was made. **HM**

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Figure 1. Computed tomography scan showing a large rectus sheath haematoma.

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CASE REPORT

A 78-year-old man was referred to the surgical team with a large suprapubic mass 2 days after admission. He was admitted from casualty with exacerbation of his congestive cardiac failure. He also had a history of chronic renal failure. On day 2 his general condition was improving but his urine output had dropped significantly. On re-examination he was comfortable at rest and abdominal palpation revealed a suprapubic mass arising from the pelvis and extending above the umbilicus which was dull to percussion. A diagnosis of urinary retention was made, the patient was catheterized but only 50 ml of urine drained. His haemoglobin level had dropped from 8.2 g/dl on admission to 4.9 g/dl and his urea had increased to 30.1 mmol/litre from 24.3 mmol/litre. His creatinine had increased to 419 mmol/litre from 278 mmol/litre. Aspiration of the mass drained blood-stained yellow fluid, its concentration of urea and creatinine being similar to that of serum.

Cystoscopy showed a small collapsed bladder and an abdominal computed tomography scan revealed a mass arising from the pelvis measuring 12x15 cm which was separate from the aorta and bladder, containing blood which had layered. There was no obstruction of the urinary tract. A diagnosis of a rectus sheath haematoma was made and the patient was treated conservatively with fluids and was transfused. He improved and was discharged 10 days later.