Groin sepsis after hip replacement: look beyond the hip

J Thekkudan MB BS D N Lobo MS FRCS
C S Ubhi MD FRCS

J R Soc Med 2000;93:262

Obturator hernias are rare and difficult to diagnose, especially after hip surgery.

CASE HISTORY

A woman aged 72, ten days after an abdominal hysterectomy, reported right groin pain and had features of small-intestinal obstruction which responded to non-operative management. 13 years previously she had had a right total hip replacement. Two months after the obstructive episode she was re-admitted with pyrexia, a painful right groin mass and limitation of right hip movements. There was no pain in the right thigh or knee and no mass was felt vaginally or rectally. An isotope bone scan suggested soft-tissue inflammation in the right thigh. During her stay in hospital, the mass in her thigh started discharging pus and coliform organisms were cultured. Contrast-enhanced computed tomography (CT) and magnetic resonance imaging (MRI) suggested inflammation in the right thigh involving the adductor and pectineus muscles, extending to the shaft of the hip prosthesis. Artefacts generated by the metallic hip prosthesis obscured views of the right obturator canal on CT, but there was no evidence of an obturator hernia on MRI. No other abnormality was noted. A sinogram did not reveal an enterocutaneous fistula and orally administered methylene blue did not appear in the discharging sinus.

She was treated with antibiotics and underwent debridement of the right thigh with repeated hip washouts; however, the sinus persisted and eventually discharged bowel contents. A subsequent methylene blue test was positive and at laparotomy a Richter type right obturator hernia containing ileum was found. There was no peritoneal contamination but the herniated ileal wall had necrosed and formed an enterocutaneous fistula. The hernia was reduced

and the ileum was resected. A plug of omentum sutured to the internal obturator fascia obliterated the obturator canal. The thigh was debrided and allowed to heal by second intention. She was discharged on the eleventh postoperative day and her wounds had healed when she was seen three months later.

COMMENT

Absence of the Howship–Romberg sign (pain in the hip radiating to the anterior aspect of the thigh and knee), a palpable groin mass with the patient supine and hip flexed, adducted and externally rotated, or a tender mass over the obturator area on vaginal or rectal examination does not rule out an obturator hernia. Most cases are diagnosed at laparotomy for small-bowel obstruction, and strangulated obstruction is not uncommon because of the delay in diagnosis^{1,2}. Strangulated obturator hernias can, albeit rarely, present as a thigh abscess and occasionally form an enterocutaneous fistula³.

The present case was confounded by the fact that the initial episode of small-intestinal obstruction, which settled rapidly, was thought to be due to postoperative adhesions, and by the negative initial investigations for bowel abnormality or enterocutaneous fistula. Partial incarceration of an ileal loop (Richter's hernia) within the obturator canal is the commonest type of obturator hernia¹ and usually results in incomplete intestinal obstruction, which may resolve spontaneously. The presence of a prosthetic hip joint erroneously led to the suspicion that the groin mass was due to prosthesis-related sepsis, and the suggestion on imaging of inflammation around the hip prosthesis resulted in multiple surgical procedures and further delayed diagnosis.

Though obturator hernias present a diagnostic dilemma, management is straightforward. The transperitoneal approach provides the best access and facilitates resection of strangulated bowel. Several ways to obliterate the obturator canal have been described², but the superiority of any single method has not been established.

An obturator hernia must be considered in the differential diagnosis of an abscess in the upper thigh, especially in an elderly patient and if there is a history of bowel obstruction.

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Department of Surgery, University Hospital, Nottingham NG7 2UH, UK

Correspondence to: Mr D N Lobo
Email: dileep.lobo@nottingham.ac.uk