Laparoscopic Partial Cystectomy for Post-Traumatic Splenic Pseudocyst

A 25-year-old woman presented with left-sided upper abdominal pain. Abdominal ultrasonography showed a 7-cm cyst in the spleen. A hydatid complement fixation test and hydatid indirect haemagglutination tests were both negative. A retrospective history was then obtained of blunt left-sided trauma in a road traffic accident eight months earlier. Two months later, follow-up ultrasonography showed an increase in the size of the cyst to a maximal diameter of 8.2 cm. Worsening symptoms, with increasing size, necessitated intervention.

The patient was explored laparoscopically. Four 10-mm ports were placed: umbilical, epigastric, left anterior axillary line, and midway between the umbilical and lateral ports. The presence of a cyst originating from the superomedial surface of the spleen, near the hilum, was confirmed. The dome of the cyst was transparent, but towards the base the wall was formed of splenic tissue. Aspiration of the cyst yielded altered brown blood. The cyst was de-roofed using a diathermy hook, and the characteristic haemosiderin-laden, inner fibrous lining, resembling the chordae tendineae of the heart, provided additional confirmation of the nature of the cyst (Figure **1**). The greater omentum was mobilized and sutured to the base of the cyst (Figure **2**). The excised wall was retrieved. The patient recovered uneventfully, and was discharged home 48 hours after the procedure. The histology was compatible with a post-traumatic cyst. Follow-up with a repeat ultrasound scan revealed no sign of recurrence.

The development of splenic pseudocysts consequent to splenic trauma and subcapsular haematoma has been shown radiologically using computed tomography scanning (1). It has been estimated that 25% of splenic cysts larger than 5 cm in diameter will rupture, causing haemorrhage and peritonitis (2). Hydatid and neoplastic cysts are rare, and can be excluded by serum and blood tests. Open surgery is safer in these conditions, where there is a risk of dissemination of the disease (3). Congenital epidermoid and traumatic pseudocysts form the majority of splenic cysts. Treatment by open surgery and partial splenic decapsulation was described by Millar in 1982 (4). The laparoscopic appearance of a traumatic splenic cyst is characteristic, and allows treatment by partial cystectomy with conservation of the spleen, minimal wounds, and a rapid postoperative recovery.

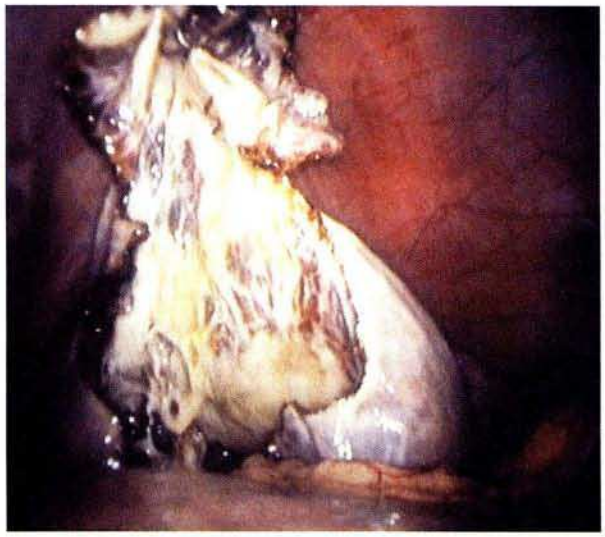

Figure 1: Excision of the dome of the cyst. The inner fibrous lining has a characteristic appearance, resembling chordae tendineae.

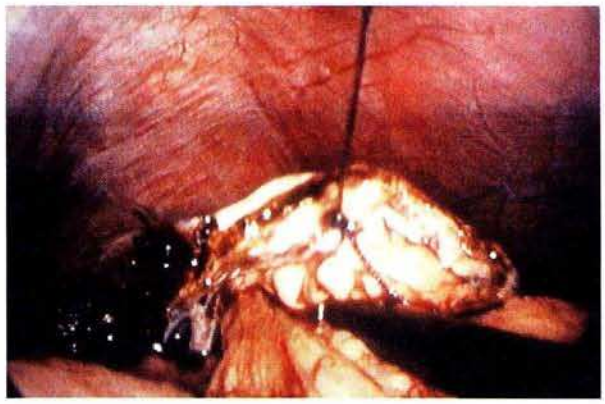

Figure 2: The omentum has been mobilized and sutured to the base of the cyst.

H. Souka, T. Loosemore, R. S. Taylor
St. George's Hospital, London,
United Kingdom

References

1. Dourthe O, Maquin P, Pradere B, Railhac JJ. Splenic cyst: demonstration of the relationship between subcapsular haematoma and false cyst by imaging. Br J Radiol 1992; 65: 541–2.
2. Pachter BL, Hofstetter SR, Elkowitz A, Harris L, Liang HG. Traumatic cysts of the spleen – the role of cystectomy and splenic preservation: experience with seven consecutive patients. J Trauma 1993; 35: 430–6.
3. Wexner SD, Cohen SM. Port site metastases after laparoscopic colorectal surgery for cure of malignancy. Br J Surg 1995; 82: 295–8.
4. Millar JS. Partial excision and drainage of post-traumatic splenic cysts. Br J Surg 1982; 69: 477–8.

Corresponding Author
H. Souka, M.D.
Surgical Dept., Level D
Royal Surrey County Hospital
Egerton Road
Guildford GU25XX
United Kingdom
Fax: +44-1483-304698