

A Case of Torsion of the Spleen Presenting as an Acute Abdomen

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Summary

A middle-aged man presented with acute abdomen was found to have torsion of the spleen on laparotomy with the spleen lying in an abnormal position. Wandering spleen is an unusual entity, with torsion being a common complication¹.

Key Words: Wandering spleen, Torsion

Introduction

Wandering spleen is an uncommon condition, and torsion of the pedicle being one of its common complications, usually presents as a surgical emergency¹. The diagnosis is usually made at the time of the operation², as described in the following case report.

Case Report

MST, a 57-year-old Bajau man, was admitted to Queen Elizabeth Hospital (QEH) on April 12, 1993 at 5.10 p.m. with a complaint of generalised abdominal pain for two days. The pain started over the epigastrium and was associated with constipation for two days. He also had difficulty in breathing. He gave a past history of "gastritis" on irregular medication. On follow-up, we also obtained a past history of a vague and poorly localised abdominal pain on and off, with a lower abdominal mass since childhood.

On examination, he was noted to be in pain, afebrile, pulse rate 140/min and blood pressure 100/70mmHg. The abdomen was distended, tense with generalised tenderness, guarding and rebound tenderness. Bowel sounds were audible. Rectal examination was normal. Blood investigations revealed a haemoglobin of 13.5 g/



Fig. 1: Intraoperative photograph showing the huge spleen (hand as comparison), with a long pedicle, lying outside the abdomen. Note the position of the umbilicus (arrow) in this lower midline periumbilical incision.

dl, total white cell count $20.4 \times 10^9/l$, platelet $55 \times 10^9/l$, serum amylase 41 u/l, sodium 135 mmol/l, potassium 5.5 mmol/l and urea 10 mmol/l. X-rays did not indicate perforated viscus or intestinal obstruction. In view of his acute abdomen, an exploratory laparotomy was performed at 1.30 a.m. on April 13. Abdominal examination under anaesthesia revealed a large mass over the lower abdomen, and a midline peri-umbilical incision was made over the mass. The

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intraoperative findings were that of a huge spleen lying in the pelvic cavity with torsion of its pedicle (Figure 1), and blood in the peritoneal cavity amounting to about 1,500 ml. splenectomy was performed and the patient's post-operative recovery was uneventful.

Discussion

Wandering spleen is an unusual entity occurring in both sexes and at any age; more frequently in women of child-bearing age and in children¹. It is probably most often a result of congenital anomalies of development of the dorsal mesogastrium, but acquired factors may have a role. The presentation is most commonly of an asymptomatic mass, mass and subacute abdominal or gastrointestinal complaints, or acute abdominal findings. Symptoms may remain limited or absent for long periods of time, but complications related to torsion or the compression of abdominal organs by the spleen or the pedicle are common. Splenomegaly is usually a result of torsion of the pedicle and splenic congestion. Alternatively, splenomegaly itself can sometimes exaggerate the symptoms of wandering spleen⁴.

Clinical diagnosis can be difficult, but non-invasive imaging procedures such as ultrasonography is usually diagnostic. Laboratory tests are usually non-specific, but may rarely reveal a picture of hypersplenism⁵. It was questionable whether the thrombocytopenia in this patient could have been caused by torsion and thrombosis

or could have been the result of hypersplenism. A review of the English literature by Allen and Andrews² in 1989 yielded only 35 reported cases in children less than 10 years of age. In their review, 18 cases presented as acute surgical emergencies of which only eight had the correct diagnosis of pedicle torsion and splenic infarction established preoperatively. Thirteen patients underwent an elective laparotomy with splenectomy or splenopexy for chronic symptoms related to their wandering spleen or for an abdominal mass, and the remaining four patients were managed conservatively. In only one-third of patients presenting with acute surgical emergencies was there any history of intermittent abdominal pain, or of a previous abdominal mass.

Management recommendations for wandering spleen are varied¹. The significant risk of post-splenectomy sepsis supports a conservative approach especially in young patients. Buehner and Baker¹ suggested that patients with limited symptomatology may be medically managed until they exhibit worsening symptoms indicating progressive splenic torsion or gastrointestinal compression. Detorsion and splenopexy may be considered in patients with worsening symptoms or even in acute abdomen, but splenectomy is performed if there is evidence of infarction, thrombosis or hypersplenism. But Allen and Andrews² recommend splenopexy as the treatment of choice for patients with chronic symptoms, or in whom the diagnosis is made prior to splenic infarction instead of conservative non-surgical management.

References

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