

Splenic Torsion

Sabah Moosa Alshukry

Abstract

A young male presented with acute abdominal pain of 4 days. Treated as appendicular mass, which did not respond to conservative management. Ultra Sound scan and CT abdomen failed to give a definite diagnosis of the tender fixed mass in lower abdomen. Laparotomy proved the mass to be an engorged large spleen twisted on its long vascular pedicle, the ischemic spleen adherent to bowel loops and posterior peritoneum. Splenectomy performed. Postoperative reactionary hemorrhage required re-exploration and clearance of clots. Patient had uneventful recovery.

Key words: Wandering Spleen; Torsion. Acute; Abdomen.

Received: 10 July 2008

Accepted: 15 Sept 2008

From the Department of Surgery, Rustaq Hospital, Sultanate of Oman,

Address correspondence and reprint requests to: Dr. Sabah Moosa Alshukry, Senior Consultant Surgeon MBChB, FRCS, Head of Department of Surgery, Rustaq Hospital, Sultanate of Oman.

E-mail: alshukry@yahoo.com

Congenital deficiency or acquired laxity of the suspensor ligaments, that usually hold the spleen in place in its compartment, may result in extreme splenic mobility (Wandering Spleen). Consequently, this mobility predisposes to torsion of the elongated splenic vascular pedicle creating a situation of acute abdomen due to hemorrhagic infarction.¹ Patients with Wandering Spleen may be asymptomatic or may present with acute abdominal pain. W.S. may occur in people of all ages, with a predilection for male patients under 10 years of age and for female patients in older age groups, being most common in multifarious women.²

Symptoms and signs are not specific and for preoperative diagnosis a high index of suspicion is helpful. Ultrasonography and computerized tomography confirms the diagnosis. Treatment is surgical, splenopexy being the most appropriate. If ischemia is persistent after distortion splenectomy can be done either laparoscopically or through laparotomy.³

H.N.S a male (25y) presented with 4 days history of vomiting, abdominal pain with absolute constipation and tender mass in lower abdomen. On examination: Asthenic young man. Pulse 100/min, Temp: 37°C, BP 130/80mmHg. Abdominal guarding and tenderness with a prominent tender fixed mass in hypogastrium, 10x10x6 cm on surface dimensions with dull percussion note and no thrill or bruit. Bowel sounds sluggish & empty rectum. Blood counts Liver functions and renal functions normal and HIV I&II negative. X-ray of abdomen was not remarkable. Ultrasound reported a well defined homogenous echogenic mass filling the pelvis and lower abdomen, CT report: multiple omental & mesenteric masses seen, the largest is a abdomino-pelvic mass 10x10cm, heterogeneously enhancing with IV contrast mesenteric based in the mid abdomen displacing the urinary bladder, bowel loops and rectum as well as anterior abdominal wall with resultant bowel obstruction and dilated loops with multiple fluid levels. SPLEEN could not be visualized.

Clinically the case considered to be appendicular mass and started on antibiotics with IV fluids, but did not improve. Exploratory laparotomy performed 8 days after admission. The enlarged spleen found twisted, with no evidence of splenocolic, splenorenal, or splenophrenic ligaments, impacted in the pelvis with thrombosed splenic vessels and adhesion to loops of small bowel, cecum and rectum with exuberant granulation tissues bleeding on removal of the spleen. The tail of the pancreas has reached beyond the umbilicus but looked healthy and lobulated. Splenectomy performed and abdomen closed with drain in pelvis. Postoperative abdominal distention and drop of Hb. Exploration showed massive blood clot in the pelvis due to bleeding from granulation tissues at sites of adhesions to spleen. No active bleeder. He recovered well and discharged to be followed up. He failed to come for follow up.

The possible diagnosis of wandering spleen should be kept in mind when CT shows the spleen to be absent from its usual position and a mass is found elsewhere in the abdomen or pelvis. When, in addition, a "whirl" or partial or no enhancement of this mass are seen in a case presenting with acute abdomen, torsion of a wandering spleen is a likely diagnosis.⁴ Complications of a wandering spleen, for which splenectomy are advocated, include functional splenia (due to torsion of the splenic pedicle), splenic infarction or splenic vessel thrombosis.⁵ Owing to the physiologic importance of the spleen, especially in children, and the risk of postsplenectomy sepsis, early diagnosis and splenopexy are recommended.

Various open and laparoscopic techniques of splenopexy were described with or without mesh are described to deal with non-infarcted viable wandering spleen.^{6,7,8}

Chronic or recurrent torsion of wandering spleen may lead to splenomegaly. A bicytopenia may necessitate splenectomy.⁹

In this patient the diagnosis was delayed because of several factors:

1. The patient seen for first time in this hospital and no previous record of abdominal examination.
2. The patient came 4 days after the onset of illness,
3. The unfortunate misinterpretations of abdominal ultrasound and CT scan,
4. The rarity of the condition.

Delayed diagnosis lead to adhesions and consequent reactionary Hemorrhage after first laparotomy.

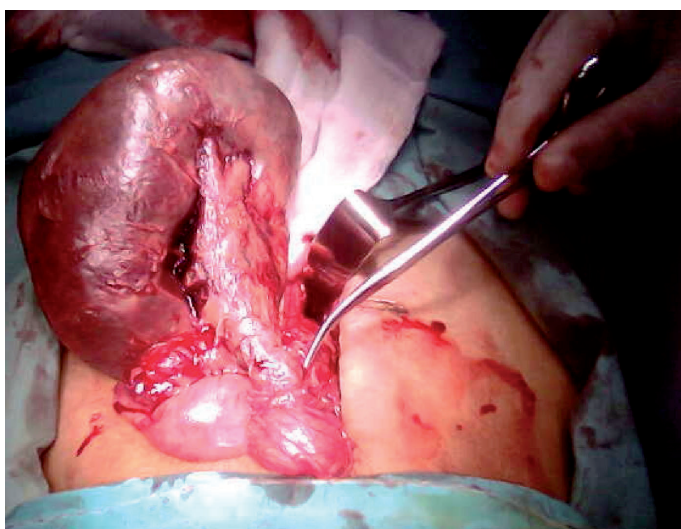


Figure 1. The twisted pedicle and the two lobules of the tail of the pancreas across the transverse colon delivered through the wound just below the umbilicus

References

1. Bombardieri T, Aspromonte N, Cafiero C, Fiumanò E, Vasile R. Wandering spleen with torsion of the pedicle. A case report and review of the literature. *Chir Ital* 2002 May-Jun;54(3):417-421.
2. Sodhi KS, Saggar K, Sood BP, Sandhu P. Torsion of a wandering spleen: acute abdominal presentation. *J Emerg Med* 2003 Aug;25(2):133-137.
3. Befikadu S, Gudu W, Abseno N. Torsion of a pelvic wandering spleen as a cause of acute abdomen in a woman: a case report and review of the literature. *Ethiop Med J* 2004 Jan;42(1):53-61.
4. Ben Ely A, Zissin R, Copel L, Vasserman M, Hertz M, Gottlieb P, et al. The wandering spleen: CT findings and possible pitfalls in diagnosis. *Clin Radiol* 2006 Nov;61(11):954-958.
5. Tan HH, Ooi LL, Tan D, Tan CK. Recurrent abdominal pain in a woman with a wandering spleen. *Singapore Med J* 2007 Apr;48(4):e122-e124.
6. Ben Ely A, Segulier E, Lotan G, Strauss S, Gayer G. Familial wandering spleen: a first instance. *J Pediatr Surg* 2008 May;43(5):E23-E25.
7. Cho SA, Choh NA, Dar I, Jehangir M, Yousuf R. Wandering spleen presenting as recurrent abdominal pain in a young female. *Indian J Pediatr* 2008 Nov;75(11):1181-1182. Published online 22 Sep 2008.
8. Soleimani M, Mehrabi A, Kashfi A, Fonouni H, Büchler MW, Kraus TW. Surgical treatment of patients with wandering spleen: report of six cases with a review of the literature. *Surg Today* 2007;37(3):261-269. Published online Mar 2007.
9. Tan HH, Ooi LL, Tan D, Tan CK. Recurrent abdominal pain in a woman with wandering spleen *Singapore Med J* 2007.48:122-124.