Torsion Of A Wandering Spleen: A Case Report

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Citation

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Abstract

Wandering spleen is a rare anatomical entity resulting from a congenital or acquired lack of spleen fixation. It is sometimes complicated by splenic pedicle torsion which is a surgical emergency. We report the case of a 17-year-old patient received for epigastralgia evolving for 15 days and fever. The abdominal examination yielded an epigastric mass, sensitive and hard, slightly mobile. At blood cell count, there was a normocytic normochromic anemia. Abdomino-pelvic ultrasonography and computed tomography showed an ectopic ischemic spleen in an epigastric position. Surgical exploration confirmed the diagnosis of wandering spleen volvulus with signs of splenic necrosis. The patient underwent a total splenectomy with uneventful postoperative course.

INTRODUCTION

Wandering spleen is a rare anatomical entity resulting from a congenital or acquired lack of fixity of the spleen [1]. Splenic pedicle torsion is a serious complication that must be taken care of quickly to avoid radical surgery especially in young subjects. We report a case of wandering spleen volvulus managed in our department.

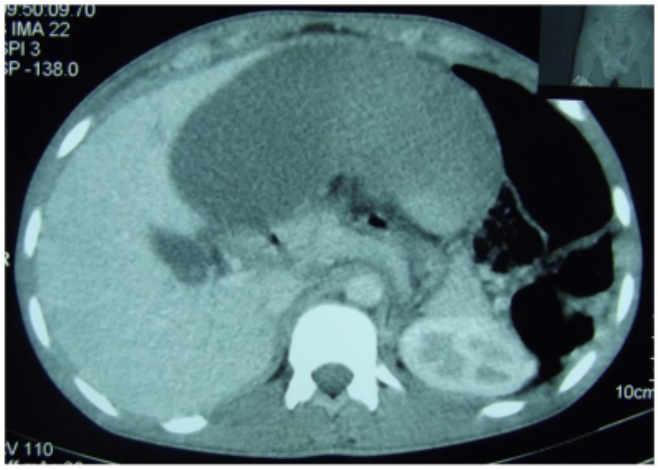
CASE REPORT

A 17-year-old patient with no history of pathological events and without any notion of reported trauma was received for epigastric pain (like torsion, of moderate intensity, intermittent, triggered by motion and without calming factor), evolving for 15 days. There was no associated transit disorder. The symptoms evolved in the context of weight loss and fever. Examination showed a good general condition and clinical anemia. The temperature was 37.8°C, pulse at 84 beats/minute and blood pressure at 120/70mmHg. The abdomen was the seat of an epigastric mass, smooth, with regular edge, sensitive and slightly mobile. Blood cell count showed white blood cells at 10940/mm3, normochromic normocytic anemia with a hemoglobin of 8g/dl, and platelets at 201400/mm3. The fibrinogen was 4.79g/l, and CRP was negative.

Abdominal ultrasonography showed ectopic splenomegaly in an epigastric position with subcapsular hematoma. Abdominal CT allowed objectifying an ischemic splenomegaly in an ectopic epigastric position (Figure 1).

Figure 1

Abdominal CT scan showing an ischemic spleen in ectopic position (Photo Dr Toure)



Surgical exploration by supra-umbilical midline laparotomy showed important epigastric splenomegaly with areas of necrosis adherent to the left liver, the small intestine and omentum, with torsion of the pedicle in a spiral turn anticlockwise (Figures 2, 3). We also noted the absence of spleno-colic and spleno-phrenic ligaments, and a lack of apposition of the colon. A detorsion and total splenectomy were performed. The postoperative course was uneventful. The patient received anti-pneumococcal and anti-meningitis vaccination. He was authorized to return home on the seventh postoperative day.

Figure 2

Wandering spleen with necrosis areas (arrows) (Photo Dr Ka)

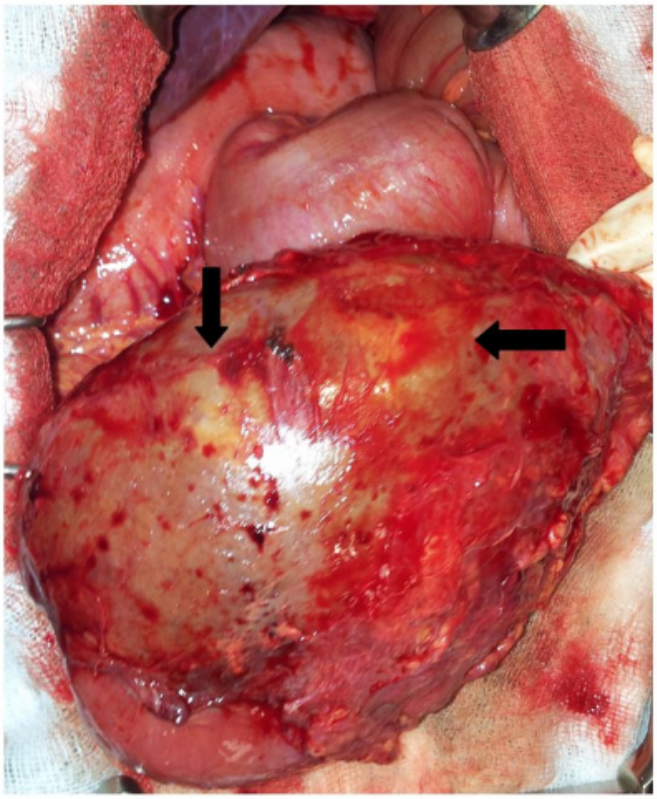
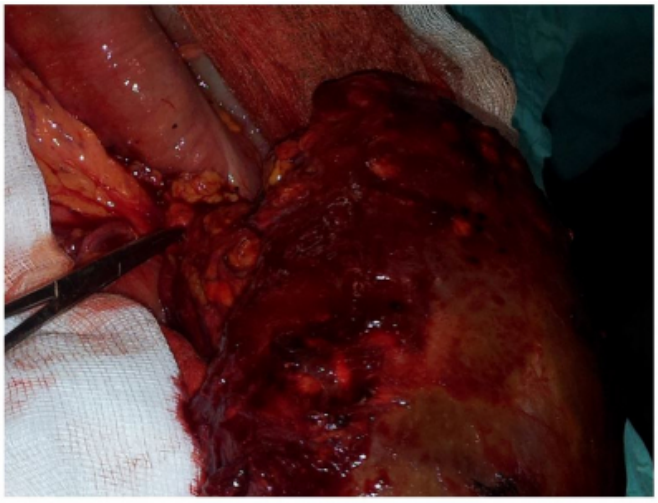


Figure 3

Splenic pedicle torsion (Photo Dr Ka)



DISCUSSION

Ectopic spleen was first described in the 19th century and is characterized by a congenital or acquired fixity of the spleen [1,2]. Congenital, it would be related to a lack of apposition of dorsal midgut during the second month of embryogenesis [1,3]. This results in an absence or laxity of ligaments to the fixity of the spleen. When acquired, it may be associated with a weakness in the abdominal wall, pregnancy, trauma or secondary to splenomegaly [1,3]. It appears in patients of all ages with a predilection for boys under 10 years [4]. The congenital origin in our patient is supported by the absence of spleno-colic and spleno-phrenic ligaments associated with a lack of apposition of the colon.

Wandering spleen may be asymptomatic and only discovered by accident during routine examination or imaging results for another diagnostic issue [5,6]. It can also manifest with intermittent abdominal pain as in our patient. The twist is favored by its mobility, its weight and the length of its pedicle. It can be irreversible and manifest as acute surgical abdomen, abdominal pain which comes to the fore, sometimes associated with nausea, vomiting and fever [1,7]. An abdominal or pelvic mobile mass, painful in case of torsion, should be searched for by palpation of the abdomen. This clinical picture may suggest the diagnosis of ectopic splenic torsion but also other differential diagnoses such as ovarian torsion or volvulus of small bowel tumor [1].

In case of diagnostic difficulty, morphological tests such as ultrasonograhy and abdominal CT scan confirm an ectopic spleen and pedicle twisting. They show the emptiness of the splenic lodge with an abdomio-pelvic mass with a structure reminding of the spleen. This mass is not contrast-enhanced after injection which signifies ischemia or necrosis. Pedicle torsion is affirmed by the whirl sign [8].

Once diagnosed, the treatment is surgical, by laparotomy or laparoscopy. In the absence of splenic necrosis untwisting can be associated with a splenopexy which allows fixing the spleen in its anatomical position. Otherwise, you must perform a splenectomy [1,7,8,9]. We chose this option for our patient because of the existence of necrosis areas.

CONCLUSION

Acute abdominal pain and abdominal-pelvic mass should suggest ectopic splenic torsion. Abdomino-pelvic CT and ultrasonography confirm the diagnosis which should be made as precociously as possible to allow a conservative surgical treatment such as splenopexy.

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