

Wandering spleen associated with a splenic cyst

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Davidson and colleagues documented the first splenic cyst in an ectopic spleen in an article in 1980.¹ In an extensive review of the literature, Lamesch et al. reported only 74 cases up to 1990.² These reports indicate the rarity of wandering spleen, which is even rarer if it contains a cyst. Only three cases have been documented in the literature so far.^{1,3,4,5,6}

The spleen is fixed in the left upper quadrant of the abdomen by five ligaments or peritoneal reflections, which are embryological condensations. Congenital anomalies may result in splenic displacement with excessive mobility^{7,8} and acquisition of a true vascular pedicle that is liable to torsion. The male to female ratio of these anomalies is about 1:7 in adults and most females are in the child-bearing age group of between 20 to 40 years when they occur; however cases have been reported in patients from age 2 to 80 years. The diagnosis of wandering or ectopic spleen is difficult because of vagueness or lack of symptoms, unless complications occur.^{9,10,11} Patients usually present with an asymptomatic abdominal mass or a mass associated with recurrent pain. This mass could be located anywhere in the abdomen.^{12,13} Wandering spleen may also present as an acute abdomen if it becomes complicated by torsion. Laboratory tests are usually non-specific but may reveal occasionally evidence of hypersplenism or functional asplenia. Non-invasive imaging procedures such as sonography, nuclear scintigraphy, computerised tomography and sometimes magnetic resonance imaging may be diagnostic.^{14,15,16} Treatment is usually surgical.^{17,18} This case report was of a female patient referred to the Surgical Outpatient Department of the Northern Area Armed Forces Hospital, King Khalid Military City, Hafr Al-Batin, Saudi Arabia from a private health facility.

Case

A 25-year-old female was referred to the surgical outpatient clinic from a private health facility with an occasional dull aching-to-dragging abdominal pain of a few months duration, which was diagnosed as pseudopancreatic cyst according to the ultrasonographic report. There was no history suggestive of gallstone disease or of acute pancreatitis and she was not on any medications. Clinical examination revealed a painless, freely mobile pelvi-abdominal ovoid mass occupying the suprapubic and umbilical regions (Figure 1). After the abdominal examination the patient was asked again if she was aware of the abdominal mass or not. The patient admitted that she noticed the appearance and disappearance of

this mass from time to time in relation to her posture. The patient was admitted to the hospital with the diagnosis of pelvi-abdominal mass for investigation.

Laboratory findings were within normal limits. A CT scan with contrast enhancement showed the mass was located in the left hypochondrium (Figure 2) and not in the pelvis as thought from the clinical examination. The patient consented to laparotomy and splenectomy. At operation, the diagnosis of



Figure 1. Freely mobile pelvi-abdominal mass.

wandering spleen was confirmed (Figure 3) and splenectomy was carried out. There were no attachments save for the main vascular pedicle and the tail of the pancreas. Macroscopically, there was a line of transition between the normal splenic tissue and its contained cyst. Its weight was 1120 grams and the cyst was filled with turbid serous fluid. The diagnosis of congenital splenic cyst was established when the specimen was examined histopathologically.

The patient received the trivalent pneumococcal vaccine in the immediate post-operative period. The postoperative period was uneventful and the patient was discharged in a good condition. Regular follow up at the outpatient clinic showed no postsplenectomy thrombocytosis.

Discussion

Wandering (ectopic or floating) spleen as an entity is very rare and the presence of a cyst in it makes it even rarer.^{3,4,6,9,11} Clinical presentation is usually vague and variable and some are asymptomatic; however most frequent complaints include vague chronic abdominal pain, or the presence of an abdomino-pelvic mass.¹⁹ The clinical implication of a wandering spleen is its predisposition to life-threatening complications such as torsion of its vascular pedicle, splenic infarction, portal hypertension, gastrointestinal bleeding and acute abdomen.²⁰ Imaging studies such as colour ultrasonography, visceral arteriography, splenic radio nucleotide scan and contrast enhanced spiral CT are very useful in reaching a definitive diagnosis.^{14,16} Treatment of wandering spleen is surgical,^{17,18} but the question of carrying out total splenectomy or splenopexy will depend on the clinical presentation of the patient and the age. Preservation of the spleen is of paramount importance at surgery so as to prevent post splenectomy sepsis especially in young patients.

A complicated wandering spleen that has undergone irreversible infarction, thrombosis or showing features of hypersplenism should be treated by splenectomy but the patient must receive pre-operatively or in the immediate post operative period the trivalent pneumococcal vaccine. Splenopexy or splenectomy could be achieved either by open or



Figure 2. CT scan with contrast enhancement showing a cystic mass arising in the lower pole of the spleen.



Figure 3. Mobile wandering spleen with no attachments except the main vascular pedicle and tail of the pancreas.

laparoscopic method. The laparoscopic approach has been encouraging in some recent reports and this method has been used in five cases to date.^{3,21} This procedure was not carried out in our patient because of technical difficulty.

In conclusion, this case draws the attention of clinicians to this rare entity in the differential diagnosis of an abdominal mass in the presence of minimal abdominal symptoms and of the need to refer such cases to the appropriate surgical facility without too much delay in order to be able to preserve the spleen before complications arise.

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