

# Wandering Spleen: A case report

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## Abstract:

Wandering spleen is a rare clinical entity, characterized by splenic hypermobility that results from elongation or maldevelopment of its suspensory ligaments. Its rarity and unusual situation of the spleen prompted led us to report this 55-year-old female who presented with intermittent abdominal pain, and misdiagnosed by ultrasound to had an abdominal mass, for which abdominal CT scan was done and showed wandering spleen.

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## تجول الطحال: تقرير حالة

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## الخلاصة:

تجول الطحال هو حالة مرضية نادرة تتميز بزيادة القابلية الحركية للطحال الذي ينتج عن استطالة أو سوء نمو أربطته المعلقة له. ندرته ووضع الطحال غير العادي دفع إلى تقرير حالة هذه الأنثى البالغة من العمر 55 عاماً التي شكت من ألم متقطع في البطن، وتشخص خطأً بواسطة الموجات فوق الصوتية كورم في البطن، والذي على أثره طلب عمل أشعة مقطعية للبطن والتي أكدت تشخيص تجول الطحال.

## Introduction:

Wandering spleen is a rare clinical condition with unknown true incidence, characterized by ectopic positioning of the spleen due to abnormal peritoneal attachments including the lienorenal and gastrosplenic ligaments. The spleen can “wander” or migrate into various positions within the abdomen or pelvis due to this ligamentous laxity (1). The clinical presentation of patients with this entity is variable and can range from an incidental finding to an acute abdomen associated with torsion (2). Various imaging modalities can be utilized for the diagnosis of this condition (2). This case report presents an incidental finding of a normally-looked wandering spleen on CT scanning, in a female with an abdominal discomfort, misinterpreted on ultrasonography as a lower abdominal mass.

## Case report:

A 55 years female patient referred to the CT scan department at Ibn-seena general hospital for abdominal CT scan. Her history revealed intermittent abdominal pain and discomfort throughout the previous period, so she referred by her physician to do an abdominal ultrasonography without regional physical examination. The report of the sonography showed presence of a mass at the lower abdomen, with normal other abdominal organs including the spleen. Abdominal CT scan with oral and intravenous contrast was done and showed absence of spleen in its normal site at the upper left hypochondrium (Fig. 1), and instead, it was seen in the left lower abdomen, with splenic vessels extend from its hilum upwards to their original location at the epigastric area (Fig. 2). The spleen appears mildly enlarged with normal shape, homogenous enhancement and clean perisplenic fat. No focal lesion or signs of splenic infarction or splenic torsion seen, with normal other abdominal structures.

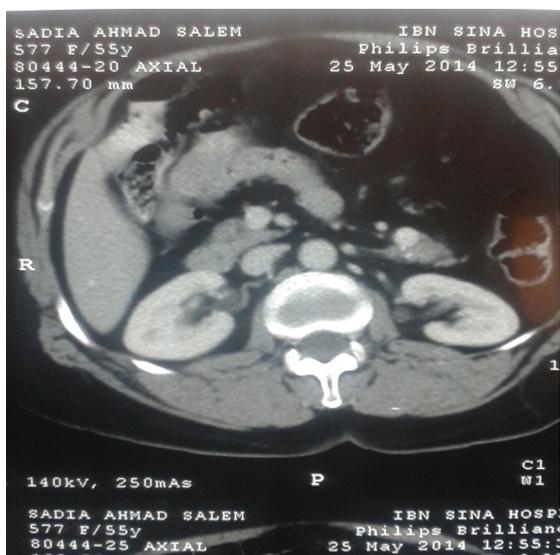


Fig. 1: CT scan image at level of upper abdomen, showed absence of spleen at its usual site in the left hypochondrial region.



ence of spleen at left lower abdomen, and splenic vessels extend from its hilum with normal contrast enhancement excluding torsion.

## Discussion:

Wandering spleen, also known as ectopic spleen, proptotic spleen, floating spleen, displaced spleen and aberrant spleen, by definition is a mobile spleen that is attached only by an elongated vascular pedicle, allowing it to migrate to any part of the abdomen or pelvis. It is a rare clinical entity characterized by splenic hypermobility resulting from laxity or maldevelopment of the suspensory gastrosplenic, splenorenal, and phrenicocolic ligaments (3).

It can be congenital or acquired. The congenital form occurs due to failure of the dorsal mesogastrium to develop when the lesser sac is formed, while the

acquired form occurs mostly in multiparous females as the ligaments which are holding the spleen in position become lax (4).

The true incidence is unknown with some authors reported that incidence is highest in adults aged 20-40 years, with 70-80% of the cases being women of reproductive age. Children account for only one-third of the cases, 30% of whom are under 10 years of age with the most common age for presentation being less than one year (5, 6).

The clinical presentation of wandering spleen is variable. Patients may be asymptomatic or they may have acute abdominal crises or chronic vague lower abdominal pain. The most common presentation is abdominal pain caused by either splenic complications or mass effect, with splenic torsion and subsequent splenic infarction is the most important complication, may be either acute-complete or intermittent-incomplete (7).

Other complications of wandering spleen including gastric volvulus which is a well-known complication, but its incidence is lower than splenic torsion. Sometimes there can be a pancreatitis and gastric outlet obstruction via direct external compression or even a pancreatic tail infarction (8).

Several imaging studies may be helpful in establishing the diagnosis of wandering spleen, and debate still exists concerning which test is most appropriate. However, Duplex ultrasonography, CT and MRI are the most accurate diagnostic tests for wandering spleen (9). Ultrasonography is a non-invasive and available radiological method for detection of abnormally located spleen specially in children, and Doppler sonography helps in evaluation of splenic blood flow, but sonography is operator-dependent, so misinterpretation can occur, as in this presented case where sonography was done but the wandering spleen was misinterpreted by the sonographer as a lower abdominal mass.

The definitive treatment of wandering spleen is surgical, as conservative treatment is associated with increased complication rate. Whereas splenectomy was the standard recommended treatment for wandering spleen in the past, splenopexy is preferred nowadays. Furthermore, splenopexy can be performed by minimally invasive surgery, However, in cases of splenic torsion with infarction, splenectomy is required (10).

**References:**

1. Lam Y, Yuen KY, Chong LC. Acute torsion of a wandering spleen. *Hong Kong Med J*. 2012;18:160-162.
2. Dirican A, Burak I, Ara C, Unal B, Ozgor D, Meydanli MM. Torsion of wandering spleen. *Bratisl lek Listy*. 2009; 110 (11): 723-725.
3. Yakan S, Telciler KE, Denecli AG. Acute torsion of a wandering spleen causing acute abdomen. *Hong Kong j. emerg. med.* Jan 2011; 18 (1): 34-36.
4. Ugwu AC, Ogbonna CO, Imo AO. A wandering spleen: A common presentation of an uncommon anomaly. *SA Fam Pract* 2010;52(1):42-43.
5. Dweck A, Abrahamov A, Halpern IH, Zimran A, Elstein D. Wandering Spleen in a Young Girl with Gaucher Disease. *IMAJ* 2001; 3:623-624.
6. Ardal K., Kizilkanat K., Celik M., Turkalp E.. Intermittent torsion of a wandering spleen in a child: the role of MRI in diagnosis. *JBR–BTR*. 2004, 87: 70-72.
7. Turhan A, Kapan S, Gonenc M, Dogan M, Aygun E. Wandering spleen: Report of two cases. *International Medical Case Reports Journal*. 2010; 3:19–22.
8. Huai-Tzu M. L., Kenneth K. L. Wandering Spleen: An Unusual Association with Gastric Volvulus. *AJR*. 2007; 188: 328–330.
9. Alimoglu O, Sahin M, Akdag M. Torsion of a Wandering Spleen Presenting with Acute Abdomen : a Case Report. *Acta chir belg*. 2004; 104: 221-223.
10. Feroci F, Miranda E, Luca Moraldi L, Moretti R. The torsion of a wandering pelvic spleen: A case report. *Cases Journal*. 2008; 1:149