


Ectopic Spleen in the Pelvis: A Case Report

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Abstract

Ectopic spleen is a rare clinical condition characterized by splenic hypermobility caused by elongation or mal-development of the suspensory ligaments leading to the presence of spleen outside of its normal position. It is most commonly presented in children younger than 1 year and in females of childbearing age.

A 34-year-old woman underwent magnetic resonance imaging (MRI) after suspicion of uterine fibroids. The patient only complained of a painless lower abdominal mass. MRI revealed the enlarged spleen in the pelvic area, measuring 17 × 4.6 cm, suspended by elongated, dilated, and tortuous pedicle in the absence of the spleen in its normal position. Multiple factors could be attributed to the development of an ectopic spleen. These include the following: (1) congenital anomalies in the development of the dorsal mesogastrium and the absence or malformation of the normal splenic suspensory ligaments, (2) acquired conditions such as splenomegaly and pregnancy. An ectopic spleen can present in a variety of ways clinically. It might pass unnoticed throughout life. However, ectopic spleen should be considered in the differential diagnosis of patients presented with an abdominal mass. Imaging modalities are used to make a final diagnosis. The treatment choice for an ectopic spleen is splenopexy. Splenectomy is only necessary in case of an infarction.

Keywords

- ▶ ectopic
- ▶ magnetic resonance imaging
- ▶ mass
- ▶ pelvis
- ▶ spleen

ملخص المقال باللغة العربية

الطحال المنتبذ في الحوض: تقرير حالة

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الطحال المنتبذ هو حالة سريرية نادرة تتميز بفرط حركة الطحال الناجم عن استئطالة أو سوء نمو الأربطة المعلقة مما يؤدي إلى وجود الطحال خارج وضعه الطبيعي. يتم تشخيصه بشكل شائع عند الأطفال الذين تقل أعمارهم عن سنة واحدة وفي الإناث في سن الإنجاب. خضعت امرأة تبلغ من العمر 34 عامًا للتصوير بالرنين المغناطيسي بعد الاشتباه في وجود أورام ليفية في الرحم. اشتكت المريضة فقط من كتلة بطنية غير مؤلمة. كشف التصوير بالرنين المغناطيسي عن تضخم الطحال في منطقة الحوض، بقياس 17 × 4.6 سم، معلق بواسطة السنيقة الممدودة والمتوسعة والمتعرجة في غياب الطحال في وضعه الطبيعي. في هذا البحث تم مناقشة العوامل المتعددة التي يمكن أن تعزى إلى تطور الطحال خارج وضعه الطبيعي.

الكلمات المفتاحية: الطحال المنتبذ، تقرير حالة، بنغازي، ليبيا.

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Introduction

Ectopic spleen is a rare clinical condition characterized by splenic hypermobility caused by elongation or maldevelopment of the suspensory ligaments. It is most commonly presented in children younger than 1 year and in females of childbearing age.¹ The clinical presentation can range from asymptomatic abdominal mass to an acute abdomen.^{1,2} The exact cause of ectopic spleen is unknown; however, it could be attributed to multiple factors including (1) congenital absence of gastrosplenic and splenorenal ligaments and (2) weakened supporting splenic ligaments due to acquired causes such as pregnancy and splenomegaly.^{1,3} These factors contribute to the formation of a long vascular pedicle making the spleen hypermobile, which can lead to a set of complications including torsion, compression of another organ by the spleen or its pedicle, as well as susceptibility of the spleen to trauma. Spleen is typically located in the left upper quadrant of the abdomen, so finding one anywhere else is unusual.³ Imaging modalities play a crucial role in the early diagnosis of ectopic spleen. Treatment of choice is splenopexy, but in cases of infarction splenectomy is considered.⁴

In this case report, we discuss the case of a 34-year-old woman who presented with a pelvic mass caused by an ectopic spleen.

Case Presentation

A 34-year-old woman was presented to the gynecology and obstetrics department with a lower abdominal mass. Physical examination revealed abdominal distension, mostly in the lower abdomen due to a solid mass. Laboratory evaluation was normal, including erythrocyte sedimentation rate (ESR) and C-reactive protein levels (CRP). The diagnosis of uterine fibroids was suspected. On March 28, 2022, a pelvic magnetic resonance imaging (MRI) was done, which revealed a pelvic solid mass, approximately 17 cm in length, occupying the pelvis, with features of an ectopic spleen (► Fig. 1).

Coronal MRI showed enlarged spleen in the pelvic area, measuring 17 × 4.6 cm, suspended by elongated, dilated, tortuous pedicle in the absence of the spleen in its normal

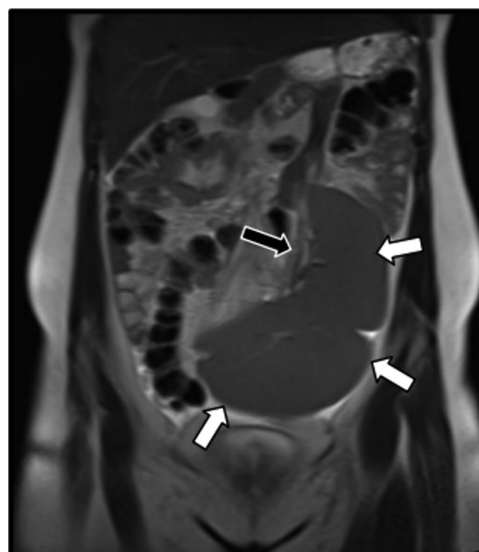


Fig. 2 Coronal magnetic resonance imaging (MRI) showing an ectopic spleen (white arrows) in the pelvis. A long tortuous vascular pedicle (black arrow) is seen extending from the epigastric region to the prolapsed spleen. No splenic tissue in the left upper quadrant.

position, and no evidence of accessory spleens in the left upper quadrant (► Fig. 2).

The patient underwent laparoscopic splenectomy, which was complicated by mesenteric vein thrombosis 2 weeks after the operation.

Discussion

The spleen is an intraperitoneal organ that lies in the left hypochondrium. Several ligaments maintain the spleen in its normal position. Three of these ligaments are constantly present: the splenogastric ligament, the splenorenal ligament, and the splenocolic ligament. Two are variably present: the splenoomental and the Splenorenal Ligament. The spleen can drop to the lower abdomen in either the right or the left lower quadrant by the force of gravity if the aforementioned ligaments are absent or lax. Ectopic spleen is

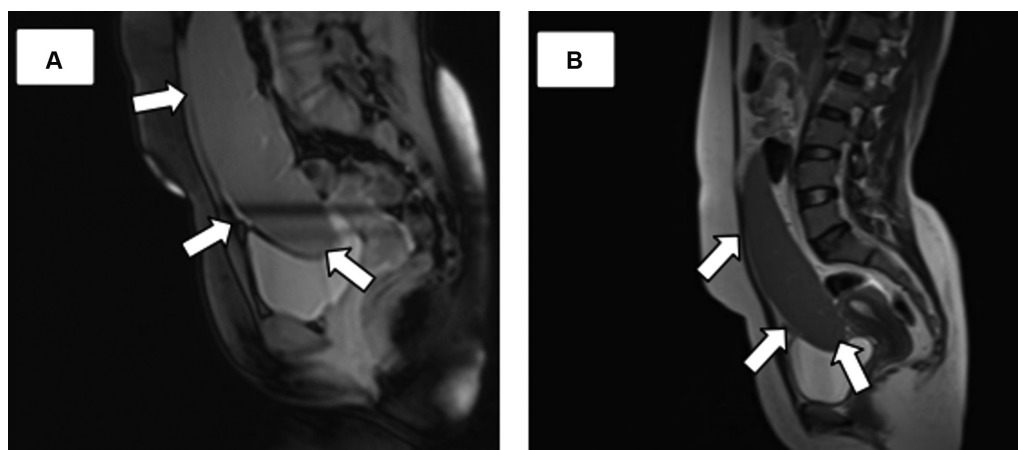


Fig. 1 Sagittal pelvic magnetic resonance imaging (MRI) shows an ectopic spleen (white arrows) in the pelvis extending anterior to the uterus into the left. (A) Sagittal T1-weighted imaging. (B) Sagittal T2-weighted imaging.

a rare condition in which the spleen lies outside its normal position. It is detected most commonly in children younger than 1 years and in women between 20 and 40 years of age.^{1,2}

Multiple factors could be attributed to the development of an ectopic spleen. These include (1) congenital anomalies in the development of the dorsal mesogastrium and the absence or malformation of the normal splenic suspensory ligaments and (2) acquired conditions such as splenomegaly and pregnancy. Splenomegaly is thought to contribute to the laxity of the ligaments through the effect of gravity.¹ The laxity of ligaments could also be caused by the hormonal effects of pregnancy, which also explains the high incidence of ectopic spleen among females of childbearing age.¹

An ectopic spleen can present in a variety of ways clinically. It might pass unnoticed throughout life. However, it can also present as an abdominal mass or emergency. Symptoms are most commonly caused by complications such as torsion, compression of another organ by the spleen or its pedicle, and susceptibility of the spleen to trauma.³

Imaging modalities are used to make a final diagnosis. In order to determine the nature of a pelvic mass of an unknown entity and to confirm the diagnosis of an ectopic spleen, ultrasonography, and MRI can be helpful. The diagnosis of ectopic spleen can be made if the imaging finding consisted of (1) the absence of the spleen in its normal position and (2) a mass located anywhere in the abdomen or pelvis with an enhancement pattern of normal splenic tissue.^{3,4}

Because conservative management of an asymptomatic ectopic spleen is associated with a complication rate of 65%, surgical management is the preferred course of action in both uncomplicated and complicated cases. The treatment choice for an ectopic spleen is splenopexy as it has been proven to prevent the complications of the ectopic spleen while preserving the splenic function. Splenectomy is only necessary in case of an infarction.^{3,4}

However, despite the absence of infarction in our case, splenectomy was the chosen route for management by the operating surgeon.

Conclusion

Multiple factors could be attributed to the development of an ectopic spleen. These include (1) congenital anomalies in the development of the dorsal mesogastrium and the absence or malformation of the normal splenic suspensory ligaments and (2) acquired conditions such as splenomegaly and pregnancy. An ectopic spleen can present in a variety of ways clinically. It might pass unnoticed throughout life. However, ectopic spleen should be considered in the differential diagnosis of patients presented with an abdominal mass. Imaging modalities are used to make a final diagnosis. The treatment choice for an ectopic spleen is splenopexy. Splenectomy is only necessary in case of an infarction.

Funding

None.

Conflict of Interest

None declared.

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