

WANDERING SPLEEN: A RARE ENTITY WITH VARIABLE CLINICAL PRESENTATION

Muhammad Salman Khan, Abdus Salam, Hina Iqbal, Zainab Hussain

Department of Radiology, The Aga Khan University Hospital (AKUH), Karachi, Pakistan

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ABSTRACT

A 79 years old female referred to radiology department for Computed tomography (CT) with suspected left breast mass. CT chest with contrast showed absence of organ in the left upper quadrant of abdomen. Spleen was migrated from its usual anatomical position, to the mid lower abdomen below the anterior abdominal wall on left side representing wandering spleen. Although wandering spleen is a rare entity and it may remain asymptomatic, it should be considered in the differential diagnosis of any mass lesion of the abdomen as well as acute or chronic abdominal pain. Imaging modalities like Ultrasound Doppler and CT of the abdomen are important for the accurate diagnosis and management of this condition.

Introduction

Wandering spleen is a rare clinical condition, defined as spleen without peritoneal attachments.¹ It is characterized by abnormal positioning of the spleen due to laxity or maldevelopment of supporting splenic ligaments. The clinical presentation of the condition varies from an incidental finding, an asymptomatic mass, recurrent abdominal pain, or even an acute abdomen due to torsion.²⁻⁴ Accurate clinical diagnosis is very difficult because of rarity of the entity and non-specific symptoms. Different imaging studies can be used for the diagnosis of the condition with computed tomography (CT) being the preferred modality.^{2,3} Other radiological studies used for evaluation of the condition include ultrasonography, doppler and abdominal magnetic resonance imaging (MRI) depending on the availability or preference.²

We present a case of 79 years female with an incidental finding of wandering spleen on CT. Knowledge of this rare condition and its radiological findings play an important role in the diagnosis and management.

Correspondence : Dr. Muhammad Salman Khan
Department of Radiology,
The Aga Khan University Hospital (AKUH),
Karachi, Pakistan
Email: salmankhan3935@gmail.com

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Case Report

A 79 years old female referred to radiology department for computed tomography (CT) with suspected left breast mass. CT chest with contrast showed absence of organ in the left upper quadrant of abdomen. Spleen was migrated from its usual anatomical position, to the mid lower abdomen below the anterior abdominal wall on left side representing wandering spleen as shown in (Fig. 1,2,3).



Figure 1: CT scan axial section shows spleen is migrated from its usual anatomical position, to the mid lower abdomen below the anterior abdominal wall on left side representing wandering spleen.



Figure 2: Sagittal section of CT scan with contrast showing spleen is migrated from its usual anatomical position, to the mid lower abdomen below the anterior abdominal wall on left side representing wandering spleen. Gray arrow is left kidney. White arrow is spleen.

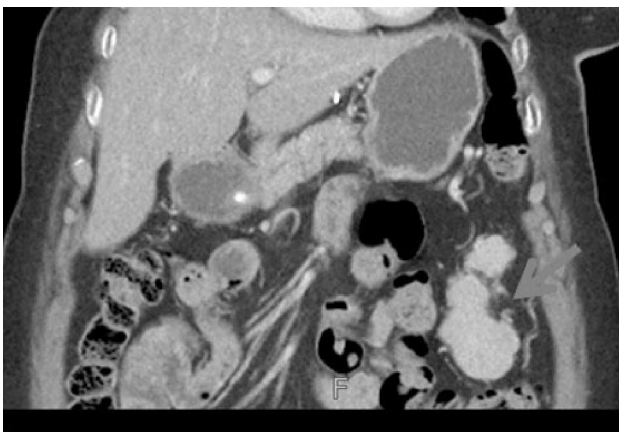


Figure 3: Contrast enhanced CT scan coronal section showing spleen is migrated from its usual anatomical position, to the mid lower abdomen below the anterior abdominal wall on left side with intact hilum representing wandering spleen.

Discussion

Spleen develops in the dorsal mesogastrium from mesenchymal cells in the second month of intra-uterine life. It assumes its normal anatomical position in the left upper quadrant due to counterclockwise rotation of the foregut and elongation of the mesogastrium.^{3,5} During this migration, spleen develops multiple attachments with stomach, left kidney and colon, i.e. splenogastric, splenorenal and splenocolic ligaments respectively. Absence or laxity of these liga-

ments, whether congenital or acquired, lead to an abnormal location of the spleen called 'Wandering Spleen'.^{3,5}

Wandering spleen is a rare condition with a reported incidence of less than 0.5%. The age of distribution ranges from newborn to 81 years of age with common occurrence in childhood as well as in the third decade of life. It is most common in the reproductive age group.⁶

Clinical manifestations of the wandering spleen are varied. It may remain asymptomatic, which may be incidentally discovered on physical examination, or imaging studies performed for other unrelated reasons as in our case report. Or it may present as an acute abdomen due to splenic torsion. Or it can also present with chronic recurrent abdominal pain.⁴

The nonspecific signs and symptoms with rarity of the wandering spleen hamper the clinical diagnosis, in which the clinician's awareness and high index of suspicion as well as imaging studies play an important role in its correct identification. The best imaging modality for diagnosis is computed tomography. Other imaging modalities for evaluation include Ultrasonography, Doppler and MRI. Ultrasonography and CT show the absence of spleen in left upper quadrant of the abdomen and its abnormal positioning. Doppler helps in the localization of spleen as well as status of patency of its vasculature.³ CT should be the choice of preoperative diagnosis in order to exclude torsion of spleen and demonstrate the detailed anatomy of vasculature.

Conclusion

Although wandering spleen is a rare entity and it may remain asymptomatic, it should be considered in the differential diagnosis of any mass lesion of the abdomen as well as acute or chronic abdominal pain. Imaging modalities like Doppler and CT of the abdomen are important for the accurate diagnosis and management of this condition.

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