

Volvulus of a Wandering Spleen Presented With Portal and Splenic Venous Trombosis: A Case Report

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Abstract: *Wandering spleen is a rare entity with the incidence of %0.2 (1), Here in we presented a 30-year-old woman with wandering spleen that leads to splenic volvulus and congestion with splenic venous thrombus and portal venous thrombus.*

Keywords: spleen, volvulus, wandering spleen

1. Introduction

When Wandering spleen is a rare entity with the incidence of %0.2 (1). It could be related with the absence of splenocolic, splenorenal or splenophrenic ligaments which hold the spleen in its normal position in the left upper quadrant of abdomen (2,3). Here in we presented a 30-year-old woman with wandering spleen that leads to splenic volvulus and congestion with splenic venous thrombus and portal venous thrombus.

2. Case Report

A 30-year-old woman admitted to our emergency department with a 2 day of abdominal pain and diarrhea. She had no prior episodes of pain and she did not have any previous radiologic test. On physical examination her abdomen was distended and diffusely tender to palpation. Laboratory examinations revealed leukocytosis and decrease of haemoglobin. Ultrasonography (US) was performed with the prediagnosis of acute apandicitis. A huge spleen which was measured approximately 21x16x10 cm was detected in the right lower quadrant of the abdomen. Thrombus was seen in both of the splenic and portal vein. Color doppler showed the significantly decrease of vascular supply of the spleen. Computerized tomography (CT) scan showed the enlarged spleen with the density of about 39 Hounsfield unit. An accessory spleen was demonstrated in the left upper quadrant. Numerous collateral vascular structures were detected as well. Some of these collaterals had thrombosis. Existence of thrombosis made us think that it was a chronic process. Dynamic magnetic resonance (MR) images showed that there was no parenchymal contrast enhancement in spleen. The patient undergone to surgery and splenectomy was performed. In surgical operation spleen was observed to turn around itself about 720 degrees.

3. DISCUSSION

Wandering spleen which is also defined as mobile spleen is attached only by the vascular pedicle and this elongated pedicle may allow the spleen to migrate to anywhere in abdomen (3). Approximately 450 cases with wandering spleen has been

reported and 150 of these reported cases have been presented with splenic volvulus (4). This entity primarily effects the adult women of childbearing age as in our case (5). But it could be seen in childhood as well. In the first year of life male predominance is noticed since it converts to female predominance after the age of one (5). However Allen et al. reported a 6:1 ratio male to female patients in their series (6). Therefore congenital and acquired reasons could be considered at the etiopathogenesis of wandering spleen. The congenital form is thought to be caused by the failure of the development of the suspensory ligaments including gastrosplenic, splenorenal, splenophrenic, splenocolic, splenopancreatic, presplenic fold, pancreaticocolic and phrenocolic ligaments (5). The acquired form is resulted from the laxity of these ligaments related to hormonal changes, multiparity and weight loss (5).

The most common clinical presentations of wandering spleen are abdominal pain with or without palpable mass. It may lead to acute splenic torsion which presents with acute abdomen. Complications of acute splenic torsion (splenic volvulus) are including infarct, abscess formation, congestion and necrosis (2). In our case all of the clinic signs and laboratory tests are compatible with acute apandicitis. US should be the first choice radiologic examination to diagnose the wandering spleen or splenic volvulus and to differentiate from the other challenging lesions such as acute apandicitis. US examination together with color doppler is usually sufficient since we can evaluate splenic blood flow which is useful in diagnosis of splenic volvulus (3). In our patient color doppler US revealed a significant decrease of splenic blood flow and T2 weighted MR images showed a hyperintensity at the hilus of spleen due to necrosis. Besides, contrast enhancement was not detected on dynamic series. CT could demonstrate additional pathologic finding such as gastric volvulus, involvement of the pancreatic tail, thrombus formation as in our case.

The patients with splenic volvulus should be operated without delay. Splenopexy and splenectomy might be the surgical choices. Splenopexy could be performed in case of the existence of the viable spleen.

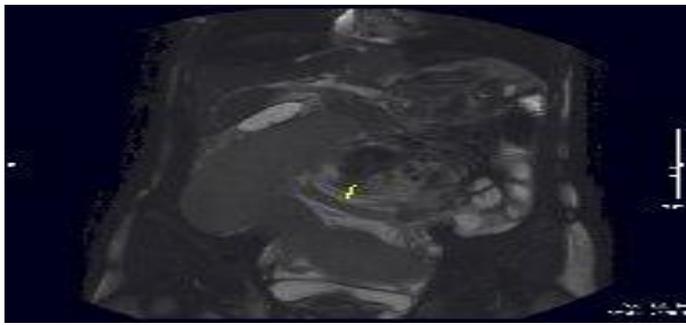


Figure 1

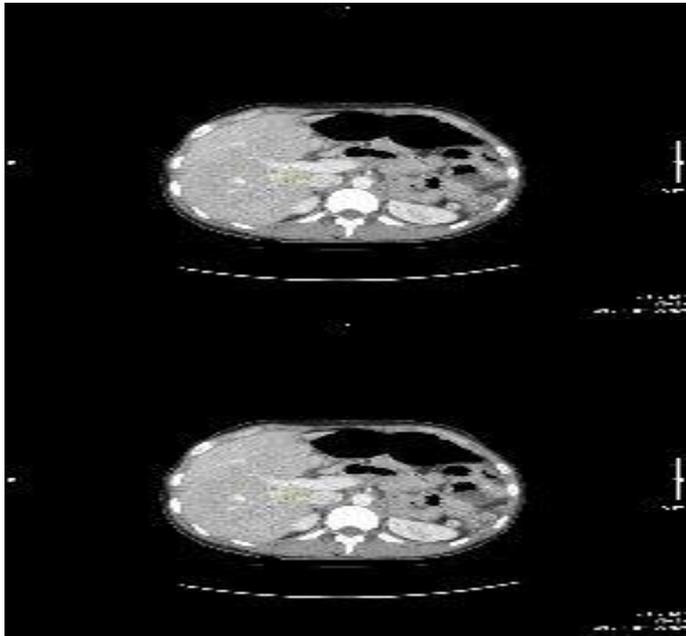


Figure 2

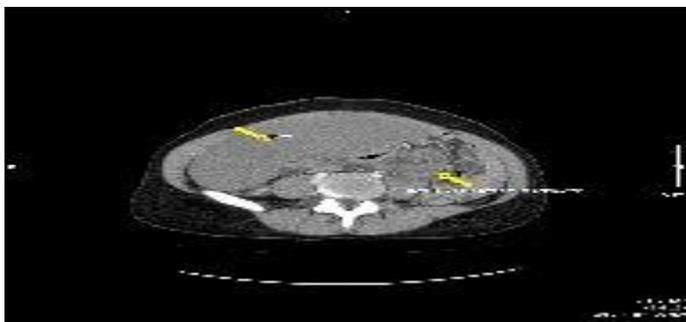


Figure 3

4. FIGURE LEGENDS

Figure 1: A huge spleen in the right lower quadrant with its volvulus, seen in T2W coronal MR images.

Figure 2: Rotation of volvulus at vascular root in the axial CT images..

Figure 3: Large and oedematous spleen with thrombosis of splenic vein, no enhancement of spleen and splenic vein was depicted at venous phase of dynamic abdominal CT.

5. REFERENCES

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