

# Case Report

## A Rare Case of Gastric Volvulus With Wandering Spleen

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### Introduction

Gastric volvulus was first described by Berti in 1866 at autopsy on a 60 year old woman who died of closed loop obstruction. Berg, 1896 carried the first successful operation of gastric volvulus. First Radiological demonstration was shown by Rosselet, 1920. Literature review shows around 200 cases of Gastric volvulus were diagnosed between the period 1920 to 1971. Considering the rarity of this condition, gastric volvulus associated with wandering spleen is even more a rare entity, with only around 5 cases reported in the last decade.

Here we describe this unusual case of an 18 yr old female who presented as acute abdomen, diagnosed with acute organo axial volvulus of stomach with gastric perforation associated with wandering spleen.

**Key Words:** Gastric volvulus, Wandering spleen, Acute abdomen

### Case report

An 18 yr old female presented to the Emergency Trauma Care department of Chettinad Hospital with symptoms and signs of acute abdomen of 1 day duration which was precipitated after consuming food. No history of fever, loose stools or history of trauma. Upper abdominal pain started after consumption of heavy dinner associated with severe retching and scanty vomiting.

Physical examination showed signs of dehydration with stable vitals. The abdomen was warm, tender, guarded and rigid with fullness of flanks which were dull on percussion.

After initial resuscitation, patient was sent for investigations where CT scan abdomen revealed malrotated spleen to right hypochondrium and organo axial malrotation of stomach with intraperitoneal free fluid.

The diagnosis was confirmed and patient underwent emergency laparotomy under general anaesthesia, with the intra operative findings of intraperitoneal contamination of gastric contents with undigested food particles due to tear in the anterior wall of the stomach following closed loop syndrome. Spleen was found to be completely floating in the right hypochondrium due

to lack of ligamentous attachments. Eventration of the left dome of diaphragm was noted.

Thorough peritoneal lavage was done with 3 liters of normal saline and cavity was thoroughly cleaned and the ragged three centimeter perforation was repaired. Splenopexy and gastropexy was done.

Patient had a stormy post operative period with septicemic shock in ICU which was appropriately managed. Her clinical condition improved and she was gradually started on a soft solid diet.

### Discussion

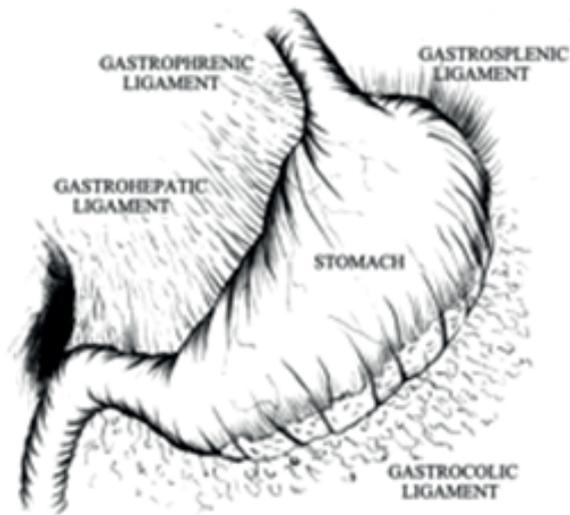
Gastric volvulus is defined as an abnormal degree of rotation of one part of the stomach around another. It may be commonly associated with eventration of diaphragm. Most of the cases are mesoaxial and occur with a rotation along the long axis of the gastrohepatic omentum. Diagnostic delay or late presentation results in ischemia, perforation and death.

Wandering spleen is by definition "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 congenital malformation resulting from abnormal development of splenic peritoneal attachments.

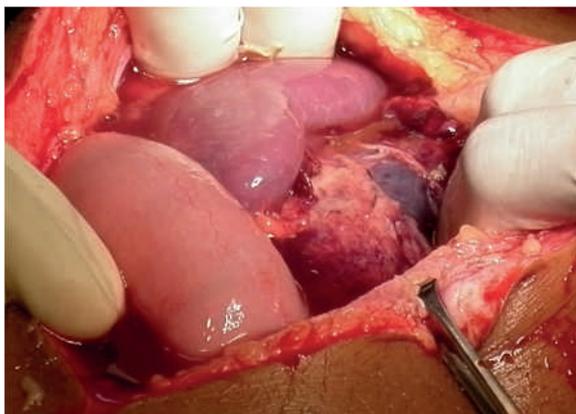
The torsion of wandering spleen is more likely in adults at 20-40 years of age due to laxity of ligamentous support as a result of splenomegaly or pregnancy. 15% of children with wandering spleen are asymptomatic, 55% present with abdominal pain, 90% with a mass in the left hypochondrium.

There is a rare association between gastric volvulus and wandering spleen; the two entities share a common cause, i.e. the absence or laxity of intraperitoneal visceral ligaments. Our patient also had the classical eventration of left dome of diaphragm.

In conclusion the conditions are potentially life threatening if not immediately managed surgically.



**Fig 1.** The 4 ligaments of the stomach normally function to prevent twisting or turning about 2 anchor points: the gastroesophageal junction and the pylorus



**Fig 2.** Intra operative picture showing spleen on right side with contamination of peritoneum due to rupture of stomach secondary to closed loop syndrome.



**Fig 3.** CT Picture showing spleen wandered to the right side besides the liver and gallbladder. Stomach with food contents on the left- organoaxial rotation

## References

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