

## Case Report

# Wandering spleen causing acute abdomen

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### ABSTRACT

Wandering spleen is a rare clinical entity characterized by abnormal spleen position due to its long vascular pedicle. The most common presenting symptoms are abdominal pain, abdominal mass and acute abdomen. Treatment

options depend on the presenting condition. We present a case of torsion of wandering spleen treated by splenectomy in our hospital. (Rawal Med J 2013;38: 321-322).

**Keywords:** Wandering spleen, torsion, splenectomy, acute abdomen.

### INTRODUCTION

Wandering spleen was first described in autopsies by Johannes Van Horne in 1667,<sup>1,3</sup> whereas splenic torsion of wandering spleen was first mentioned in German literature in 1885.<sup>2,4</sup> Anatomically, the spleen is approximately 11 cm in length, weighing between 150 and 200 grams. It is located under the 9th to the 11th ribs. The spleen is derived from mesenchymal tissue. It is held in place by suspensory ligaments derived from the dorsal mesogastrium. Wandering spleen is characterized by abnormal position of the spleen, therefore it may be found in the pelvis or floating in the abdominal cavity. Diagnosis depends on the clinical presentation, imaging studies and laboratory investigations.

### CASE PRESENTATION

A 24 year old female patient, Gravida two para two, previously healthy who delivered a baby 2 weeks earlier normally, presented to the Emergency Department complaining of abdominal pain of one day duration. It was mainly in left lower quadrant, continuous, dull in nature and was associated with nausea and vomiting. Physical examination revealed low grade fever, tenderness all over but mainly in left lower quadrant and rebound was positive.

Investigations showed WBC count of 18,000/HPF, a low PCV (32%), normal platelet count and normal serum electrolyte values. Urine analysis was not remarkable. The ultrasound showed a pelvic mass measuring 11.5x10 cm. She was admitted and after resuscitation, underwent laparotomy. The operative findings consisted of four times torted splenic pedicle (Fig.1), and significantly enlarged and infarcted looking spleen (Fig.2). Splenectomy was performed. The postoperative period was unremarkable and the patient was discharged on the fifth day.

### DISCUSSION

Wandering spleen mainly occurs due to the long vascular pedicle which allows migration of the spleen from its normal anatomic site. It is most commonly seen in young children and in women aged 20-40 years. The clinical presentation is variable, from asymptomatic patient, to slight abdominal pain or a palpable mass in the abdomen, to acute abdomen. The most common symptom is abdominal pain caused by either mass effect, or as a complication of this condition.



Fig 1. Splenic pedicle after torsion.



Fig 2. Splenic infarction.

The most important complication is splenic torsion that can be divided into complete torsion and intermittent torsion. In complete torsion, the patient presents as acute abdomen due to splenic ischemia whereas in intermittent torsion, there is vague abdominal pain due to venous congestion and hypersplenism.<sup>5</sup> Other complications include gastrointestinal obstruction, pancreatic necrosis due to compression of the pancreatic tail,<sup>6</sup> bleeding from gastric varices due to splenic venous hypertension and urinary symptoms due to compression of ureters or urinary bladder.

Imaging studies are considered a cornerstone in the diagnosis of wandering spleen. The absence of the spleen in the left upper quadrant and finding a mass that resembles the spleen in some other place is suggestive of the diagnosis. Abdominal sonography may identify the wandering spleen and Doppler US may help in evaluating the splenic blood flow to rule out torsion.<sup>7,8</sup> Abdomino-pelvic CT with contrast can show the location and the viability of the spleen.<sup>9</sup> Radionuclide scan and MRI may be helpful.<sup>10</sup>

Treatment of asymptomatic patient with wandering spleen is still controversial though many authors found a higher rate of splenic torsion in these patients,<sup>11</sup> therefore, early elective treatment may preserve the spleen. On the other hand, symptomatic patients should undergo surgical treatment, which consists of either splenopexy or splenectomy.<sup>12-14</sup>

Splenopexy is recommended in uncomplicated cases especially in children, whereas in cases of infarction due to torsion, splenectomy is the treatment of choice. Minimally invasive technique is an option if the surgeon is experienced and after proper assessment of the patient and the size of his spleen.

In summary, wandering spleen should be kept in mind as a differential diagnosis of a mass in the left side of the abdomen.

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