INTRODUCTION
Wandering spleen is defined as a single spleen on a long pedicle in an abnormal location rather than in its normal position in the left upper quadrant. Wandering spleen is an uncommon clinical finding associated with a high incidence of splenic torsion and infarction usually seen in the age ranged 20-40 years and being most common in multiparous women of childbearing age. It is characterized by absence or laxity of the normal ligamentous attachment of the spleen to the diaphragm, retroperitoneum and colon. This anomaly is rare and difficult to diagnose with a reported incidence of less than 0.2%. The risk of mortality as a result of complications associated with wandering spleen is reported to be as high as 50%. The clinical presentation of patients with this entity is variable and can range from an incidental finding to an acute abdomen associated with torsion.

CASE REPORT
A 35-year-old previously healthy woman presented in Gynaecology Outpatient Department with complaints of an abdominal mass for two years and abdominal pain for eleven days associated with vomiting. She first felt a mass in her lower abdomen a couple of years back. The mass gradually increased in size and was associated with dull ache in lower abdomen.

For the last eleven days before presentation, she developed complaints of intermittent dull localized lower abdominal pain of increasing severity and in the last three days, she suffered projectile vomiting of increasing frequency with associated anorexia. On examination, patient was ill-looking, dehydrated and hypotensive. She had a large non-tender localized firm smooth mass in lower abdomen. Per vaginal examination revealed fullness in the fornices. She was admitted in Gynaecology ward under the clinical impression of an ovarian mass. For further management, her ultrasound abdomen and pelvis was done, which showed a large left Ovarian cyst of 19 x 13.2 cm and right ovary measuring 3.2 cm. Spleen was shown in its normal position that’s why the diagnosis was missed. This was performed by a trainee resident in radiology department who missed the absent splenic tissue in its normal location, which wrongly supported the clinical diagnosis of ovarian cyst.

On the third day of admission, the abdomen of patient got rigid and tender and she also developed high-grade fever. She also started vomiting, which turned greenish with passage of time. Blood widal test and Malarial parasite were negative. ECG and chest X-ray were normal. Haemoglobin percentage was 8.9 gm/dl. She was transfused two pints of fresh blood. Plain X-ray abdomen showed multiple air fluid levels. General surgery team was involved. She was diagnosed as a case of acute intestinal obstruction and an exploratory laparotomy was undertaken. On opening the abdomen, a huge spleen with multiple visible infarcts was lying in the right lower quadrant of the abdomen; gut and omentum were matted around the enlarged spleen.
there was no evidence of intraperitoneal bleed. After separating, the gut and omentum from the spleen was found to be twisted 360 degrees around its pedicle along with the distal pancreas. Spleen was non-salvageable and there was infarction in the distal pancreas and omentum. So splenectomy, distal pancreatectomy and partial omentectomy was done. Patient made an uneventful recovery. Before discharge, she was vaccinated with polyvalent pneumococcal and Hib vaccine. Spleen was subjected to histopathology and the report revealed congestive splenomegaly with focal areas of necrosis (Figure 1 and 2).

Figure 1: Congestive splenomegaly. Figure 2: Splenic focal necrosis.

DISCUSSION

The spleen is anchored in its normal position by the gastrosplenic and splenorenal ligaments. Origin of wandering spleen has been attributed to failure of normal mesenchymal differentiation in dorsal mesogastrium during embryonal development, which leads to defective attachment of dorsal mesentery to the posterior peritoneum and the diaphragm leading to wandering spleen.

Acquired factors of splenic mobility include lax abdominal wall, hormonal effects of pregnancy and splenomegaly. This explains why 70-80% of cases of wandering spleen are seen in women of reproductive age group. The first detailed description of a wandering spleen is credited to Van Horne in 1667, who described a wandering spleen as an incidental finding during an autopsy.

The condition can be incidental finding as an asymptomatic firm mobile and notched abdominal mass. Partial torsion causes splenomegaly, hypersplenism, gastric fundal varices and abdominal pain, which is seen in about 60% of patients. Complete torsion results in infarction, subcapsular hematoma, intrasplenic cyst formation. Entrapped pancreas in a twisted spleen, as in the patient, may lead to pancreatitis and ascites.

Plain X-ray abdomen in supine and erect posture may show a wandering spleen as a mobile mass with presence of bowel loops in splenic fossa. On ultrasonography, a wandering spleen may be found, as a solid mass, with echo characteristics of spleen in an abnormal location, may be with focal areas of reduced echogenicity, representing areas of infarction. On Doppler imaging, infarction is seen as absence of intraparenchymal blood flow with a resistance index of splenic artery of more than 80%. Investigative modalities like CT scan, MRI are more specific. They show absence of splenic tissue in normal location with the presence of notched mass elsewhere in the abdomen. In our case, these diagnostic modalities were not used and diagnosis was made peroperatively.

On CT scan, the specific sign of torsion is whorled appearance in hilar region, which represent twisted pedicle that may contain pancreatic tail. Definitive treatment for wandering spleen is operative since non-operative treatment is associated with a complication rate of about 65%. Splenopexy, which involves splenic salvation by placing the spleen in pouch of mesh and stitching it to the diaphragm is the procedure of choice as long as there is no evidence of infarction. The latest way of managing a diagnosed case of wandering spleen is by laparoscopy. Laparoscopy can be diagnostic as well as therapeutic. If spleen has no complication, then it can be salvaged by laparoscopic splenopexy and if the spleen is enlarged and twisted then laparoscopic splenectomy is the answer. This method of dealing the wandering spleen has diagnostic value and the postoperative recovery is rapid.

REFERENCES