INTRODUCTION
The spleen is normally located in the left upper quadrant of the abdomen bounded by the lower lateral thoracic rib cage. Wandering spleen is characterized by a migration of the spleen in anywhere in the abdomen or pelvic. It is due to a defect in its anatomical fixity. Splenic hypermobility that results from elongation or maldevelopment of the spleen’s suspensory ligaments is usually the cause of wandering spleen. It can be congenital or acquired. The clinical presentation of a wandering spleen is variable; patients can be asymptomatic. They can have recurrent subacute abdominal crises secondary to the twists and untwists of the spleen pedicle. The most frequent case for a child is the acute surgical abdomen due to the torsion of spleen pedicle. We report an unusual case of partial torsion of wandering spleen associated with small bowel obstruction in the post-menopausal female patient.

CASE REPORT
A 52-year-old female patient presented with an acute history of pain and distension in the abdomen with vomiting. Her parity was five with all normal vaginal deliveries. No history of any surgery. On general examination, the patient was febrile (temperature of 39°C) with pulse rate of 90 bpm, and blood pressure of 110/70 mmHg. An abdominal examination revealed mild abdominal distension with mild diffuse abdominal tenderness and guarding. A lump with smooth surface, well-defined margins, and firm consistency was present over the infra-umbilical region. Digital rectal examination was normal. Laboratory parameters showed mildly raised white blood cells 14,000/mm³. The platelet count was normal. Ultrasonography (USG) showed a solid mass and the absence of the spleen from its normal location with solid lobulated mass in the pelvic cavity seen separately from pelvic organs and surrounded by hyperperistaltic dilated small bowel loops. The computed tomography (CT) (plain and intravenous contrast without oral contrast) study shows hyperdense homogenously enhancing solid lobulated mass (10 cm in length) in the pelvic cavity with focal wall calcification and associated torsion of mesenteric vessels up to the hilum of pelvic mass. No obvious hypodense area or necrosis in the pelvic mass. The spleen was absent in the left upper abdomen at the splenic bed. The splenic bed was occupied by the splenic flexure of colon. Multiple dilated small bowel loops with

ABSTRACT
Wandering spleen is a rare entity. Wandering spleen results from the elongation or maldevelopment of the spleen’s suspensory ligaments causing migration of the spleen from its normal anatomical site to another abdominal or pelvic location. It mainly affects children. Among adults, it is most commonly found in females of active reproductive age. It may present as an asymptomatic mass in the abdomen, or it may present with intermittent abdominal discomfort. The most dangerous complication is the occurrence of torsion of the spleen around its pedicle. We present the case of a post-menopausal female patient of age 52 years who had features of intestinal obstruction. Clinical examination revealed generalized abdominal tenderness and an under umbilical mass. Ultrasound and computed tomography scans have visualized the pelvic mass, which measured 12 cm in long axis. Exploratory laparotomy showed partially torted spleen with small bowel obstruction. A total splenectomy and adhesiolysis were performed. Report of wandering spleen with small intestinal obstruction. Wandering spleen is rare entity usually seen in children’s and rarely associated with small intestinal obstruction in an adult patient.

Key words: Spleen, Splenectomy, Splenopexy, Wandering spleen
transition zone in the distal ileum surrounding pelvic cavity. Mild to moderate free fluid was present in the peritoneal cavity with right in the stomach. No free air in the abdomen or pneumoperitoneum noted.

Pre-operative diagnosis of wandering spleen in the pelvic cavity with torsion of mesenteric vessels and associated small bowel obstruction secondary to distal ileal adhesion was made.

During the laparotomy, a mass measuring 11 cm × 6 cm and weighing approximately 300 g was found in the pelvic cavity with torsion of mesenteric vessels. The small bowels were adhered to this mass in the pelvic cavity with proximal small bowel obstruction and free fluid in the abdomen.

Lobulated hyperdense pelvic mass with uniform contrast enhancement and small nodular calcification.

Absent spleen in the splenic fossa occupied by bowel loops with twisted mesenteric vessels and multiple dilated small bowel loops (Figures 1 and 2).

DISCUSSION

A wandering spleen is usually asymptomatic incidentally detected rare entity but can be present with acute abdomen. It is defined as an abnormal position of spleen from its anatomic location in the left hypochondriac region into anywhere in the abdomen or pelvis.\(^2,3\) The incidence is low and common in childhood and adolescents.\(^4,5\) It’s rare in an adult patient usually affects adult female and rare in old age male patient.\(^6,7\) It is caused by the absence of fixing ligaments of spleen or failure of development of dorsal mesogastrium which explains the high incidence in the child.\(^8\) The undeveloped system fixation of the spleen results in a long vascular pedicle and mobile spleen which favors torsion. Acute and chronic splenic torsion are most important complication of wandering spleen.\(^9,10\)

X-ray abdomen erect view is usually not helpful to diagnose the wandering spleen, however, associated suspected small bowel obstruction can be evaluated. USG is the most common imaging tool to diagnose this rare entity by locating site of wandering spleen and associated detection of absent spleen in splenic fossa.\(^11-13\) Other associated findings such as small bowel dilatation and obstruction as well as ascites can also evaluate on USG. Torsion of mesenteric vessels can be detected by duplex USG with typical whirlpool pattern of vascular twisting in the abdomen. Doppler USG also helps in the evaluation of organ blood flow. The CT is more useful and accurate imaging tool to diagnose wandering spleen and associated complication.\(^14,15\) CT scan accurately depicts the position of wandering spleen in the abdomen with detailed evaluation of its blood supply, vascular twisting, splenic ischemia, torsion, and evaluation of associated complication-like intestinal obstruction. CT scan also helps to detect changes of peritonitis. Magnetic resonance imaging and scintigraphy help also to diagnosis. When the diagnosis of wandering spleen is made, splenopexy is a surgical option to avoid complication mainly in the pediatric patient,\(^16,17\) but when there is torsion of the spleen pedicle and infarction, splenectomy is performed.\(^18-21\)

CONCLUSION

Wandering spleen is rare entity to present in a post-menopausal female patient with acute intestinal obstruction. USG is helpful for early diagnosis of this condition; however, CT scan is superior in the evaluation of wandering spleen and associated complication-like intestinal obstruction recommended treatment for wandering spleen is operative. In our case, splenic preservation was not possible because of mesenteric vascular torsion and associated intestinal adhesions surrounding the wandering spleen in pelvic cavity causing intestinal obstruction. The decision to perform an emergency laparotomy was made with splenectomy and adhesiolysis.

REFERENCES


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