

Wandering spleen accompanied by hilar angiomasia causing intestinal obstruction in a paraplegic patient

Paraplejik hastada intestinal obstrüksiyona neden olan hiler anjiomatozis içeren gezici dalak

To the Editor,

Wandering spleen (WS) is uncommon and is defined as absence or weakness of one or more of the normal suspensory ligaments holding the spleen.

Suspended with a long vascular pedicle, the spleen often has an axial rotation and tendency to migrate (1). Like other vascular tumors of the

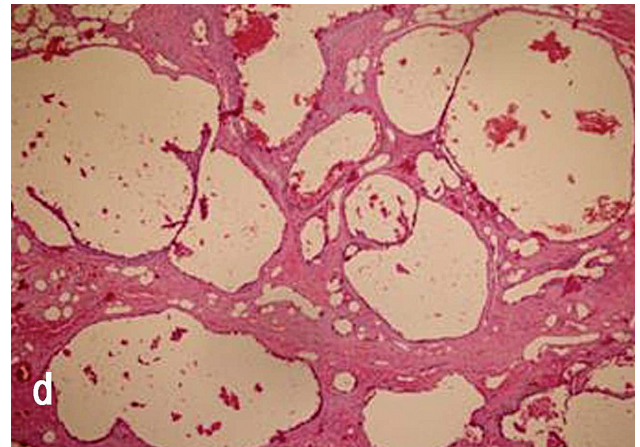
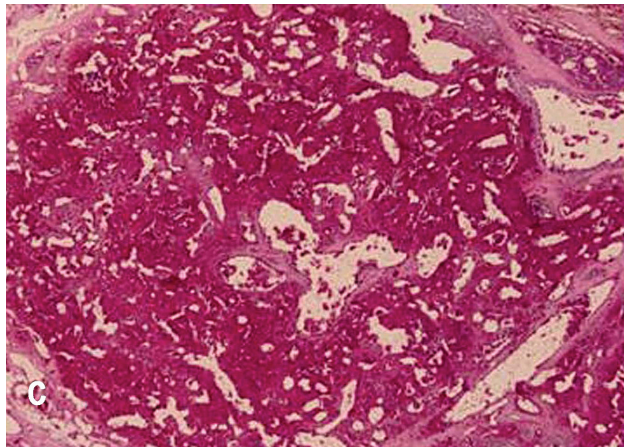
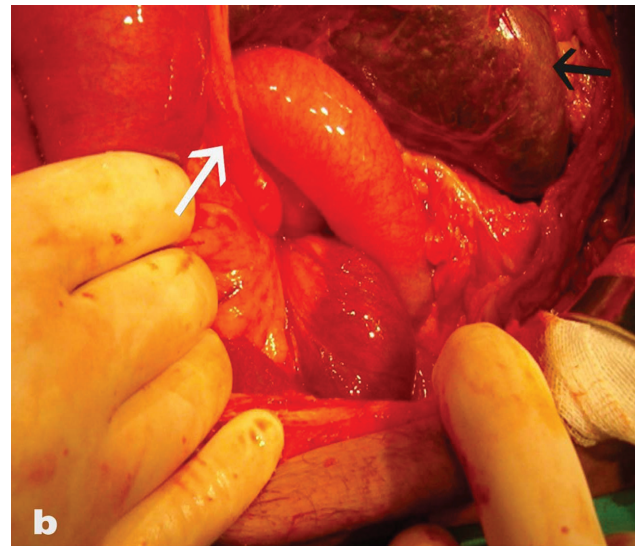
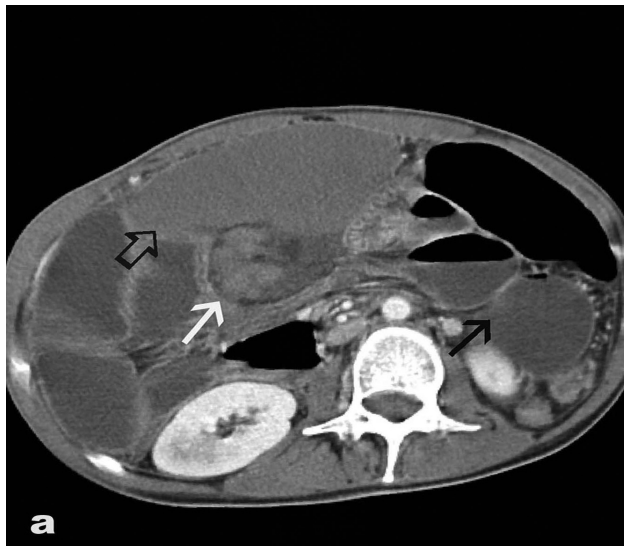


Figure 1. a: Contrast-enhanced axial CT view of the totally infarcted spleen located in the right mid-abdomen (open arrow). The twisted splenic pedicle involved thrombus in the splenic vessels and hamartoma (white arrow). The patient had splenic torsion accompanied by small bowel dilatation (black arrow). **1b:** The operative findings of the patient with wandering spleen compressing the intestines (black arrow) and two loops of dilated small bowel (white arrow). **1c, d:** Microphotographs showing different parts of the vascular lesion located in the spleen hilus. The lesion was composed of back-to-back, dilated, vascular structures (HE x40).

Address for correspondence: Alper PARLAKGÜMÜŞ
Başkent University, Adana Research and Teaching Center
Department of General Surgery
Dadaloglu Mah., 39. Sok., No: 6 01250, Yüreğir, Adana, Turkey
Phone: + 90 322 327 27 27 • Fax: + 90 322 327 12 76
E-mail: aparlakgumus@yahoo.com

Manuscript received: 11.11.2008 **Accepted:** 08.07.2009

doi: 10.4318/tjg.2009.0018

spleen, hilar angiomatosis rarely causes thrombosis, hemorrhage, fibrosis and infarction (2). We encountered an infrequent form of WS, causing intestinal obstruction and accompanied by an extremely rare condition of hilar angiomatosis contributing to infarction of the spleen.

A 26-year-old Turkish male presented with severe abdominal pain, distension, vomiting and flatulence lasting for five days. He had a history of an accidental spinal injury due to a gunshot at the age of 12. He had tachycardia on physical examination and tympanism and resonance in the left upper quadrant on percussion. There was an intra-abdominal lump in the periumbilical region hanging loose down the pelvis. He had leukocytosis ($18500/\text{mm}^3$) and anemia (8.7 g/dl). Computerized tomography revealed a total infarcted spleen lying in the mid-abdomen with a twisted splenic pedicle including thrombus in the splenic vessels with a vascular structural formation and small bowel dilatation (Figure 1a). Urgent laparotomy was undertaken, which revealed an enlarged infarcted spleen twisted on its long pedicle at 120° . Adhesions and increased size and weight of the spleen with its long pedicle seemed to cause the intestinal obstruction (Figure 1b). The spleen weighed 1219 g and measured $22 \times 14 \times 7.5$ cm. A lesion of $6 \times 3.5 \times 3$ cm was observed in the hilus. On histopathology, fibrocongestive hyperplasia and hemorrhagic in-

farct in the spleen parenchyma were prominent. Samples taken from the hilus revealed a vascular lesion with numerous, back-to-back vascular structures, most of which were congested-dilated and some of which were thrombosed and thrombosed-recanalized (Figures 1c, d). The patient was discharged on the 4th postoperative day.

WS is uncommon, with a reported incidence of 0.16% of 3,853 splenectomies in all age groups (3,4). Both congenital and acquired causes have been implicated in the origin of WS (5,6). The mobility of the spleen may cause catastrophic complications such as torsion, infarction, intestinal obstruction, variceal hemorrhage and pancreatic necrosis (7). The case presented here had acute gastrointestinal obstruction due to the pressure of the enlarged and ptotic spleen in the abdomen. He had also hilar angiomatosis contributing to the infarction of the spleen, which is extremely rare. On laparotomy, we observed the spleen twisted at 120° along its long pedicle. Incomplete rotation with hilar angiomatosis of the spleen explained the whole infarction of the spleen. To our knowledge, this is the first report of WS causing intestinal obstruction and accompanied by an extremely rare occasion of hilar angiomatosis contributing to the infarction of the spleen with partial rotation in a paraplegic patient.

REFERENCES

1. Ben Ely A, Zissin R, Copel L, et al. The wandering spleen: CT findings and possible pitfalls in diagnosis. *Clin Radiol* 2006; 11: 954-8.
2. Elsayes KM, Narra VR, Mukundan G, et al. MR imaging of the spleen: spectrum of abnormalities. *Radiographics* 2005; 25: 967-82.
3. Buehner M, Baker MS. The wandering spleen. *Collective review. Surg Gynecol Obst* 1992; 175: 373-87.
4. Allen KB, Andrews G. Pediatric wandering spleen - the case for splenopexy: review of 35 reported cases in the literature. *J Pediatr Surg* 1989; 24: 432-35.
5. Allen KB, Gay BB Jr, Skandalakis JE. Wandering spleen: anatomic and radiologic considerations. *South Med J* 1992; 85: 976-84.
6. Alimoglu O, Sahin M, Akdag M. Torsion of a wandering spleen presenting with acute abdomen: a case report. *Acta Chir Belg* 2004; 10: 221-3.
7. Taori K, Sanyal R, Deshmukh A, Saini T. Pseudocyst formation: a rare complication of wandering spleen. *Br J Radiol* 2005; 78: 1050-2.

Alper PARLAKGÜMÜŞ¹, Sedat YILDIRIM¹,
Ali EZER¹, Nazım Emrah KOÇER²,
Naime TOKMAK³, Kenan ÇALIŞKAN¹,
Tamer ÇOLAKOĞLU¹, Gökhan MORAY¹

Departments of ¹General Surgery, ²Pathology, ³Radiology, Baskent University, School of Medicine, Ankara