An Unusual Reason for Gastric Variceal Hemorrhage: Wandering Spleen

Hüseyin Köseoğlu · Roni Atalay · Naciye Şemnur Büyükaşık · Murat Canyığıt · Mehmet Özer · Tevfik Solakoğlu · Fatma Ebru Akın · Aylin Demirezer Bolat · Öykü Tayfur Yürekli · Osman Ersoy

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Abstract Wandering spleen is the displacement of the spleen due to the loss or weakening of the ligaments of the spleen and is seen very rarely with an incidence of less than 0.5 %. It can cause portal hypertension, but gastric variceal hemorrhage is a quite rare condition within the spectrum of this uncommon disease. We report a 22-year-old woman with wandering spleen presenting with life-threatening gastric variceal hemorrhage. Her diagnosis was made by computerized tomography. Endoscopic therapy was not adequate to stop the bleeding, and urgent splenectomy was performed. After surgery she has been well with no symptoms until now.

Keywords Wandering spleen · Gastric variceal hemorrhage · Portal hypertension · Splenectomy

A 22-year-old woman applied to the emergency department with fatigue and dizziness. On physical examination, her heart

rate was 108 bpm, and blood pressure was 90/60 mmHg. On rectal examination, melena was detected. Results of the laboratory evaluation were as follows: hemoglobin 4.4 g/dL, thrombocytes $156,000/\text{mm}^3$, serum iron 18, serum iron-binding capacity 437, and international normalized ratio (INR) 1.04. An esophagogastroduodenoscopy (EGD) was performed, and giant fundal varices (Fig. 1) were observed. Histoacryl + lipiodol injection was performed on these varices. Because of their large size, it was thought that endoscopic treatment would not be adequate. On abdominal ultrasonography, the liver was normal, the spleen was 200 mm long, and no thrombus formation was found in the portal or splenic vein. Meanwhile, a prior abdominal computerized tomography (CT) was brought by the patient's relatives. In these images, it was seen that the spleen was located at the right iliac fossa (Fig. 2). The patient was considered to have wandering spleen, and an urgent splenectomy was performed. After the surgery, bleeding was taken under control, and her symptoms were relieved.

H. Köseoğlu (✉) · O. Ersoy
Department of Gastroenterology, Faculty of Medicine, Yildirim Beyazit University, Ankara, Turkey
e-mail: huseyinko@yahoo.com

R. Atalay · N. Ş. Büyükaşık · T. Solakoğlu · F. E. Akın · A. D. Bolat · Ö. T. Yürekli
Department of Gastroenterology, Ankara Atatürk Research and Education Hospital, Ankara, Turkey

M. Canyığıt
Department of Radiology, Ankara Atatürk Research and Education Hospital, Ankara, Turkey

M. Özer
Department of General Surgery, Ankara Atatürk Research and Education Hospital, Ankara, Turkey

Fig. 1 Giant fundal varices seen on esophagogastroduodenoscopy

Fig. 2 The computerized tomography scan shows the spleen at the right iliac fossa

The spleen is normally fixed to the left side of the diaphragm by the peritoneal ligaments. Due to the loss or weakening of these ligaments, the spleen can be found in any part of the abdomen or pelvis, and this is called “wandering spleen” [1, 2]. In these patients, the spleen has a long pedicle and is hypermobile. The patients may present with nausea, vomiting, or cramp-like pain [1, 3]. Acute abdomen, splenic infarction, splenic abscess, hypersplenism, pancreatitis, pancreas necrosis, gastric volvulus, and gastric outlet obstruction are rare complications [1, 2, 4].

The mobility of the spleen leads to the torsion of the pedicle. The torsion of the splenic pedicle causes occlusion of the splenic vein, and this occlusion results in left-sided portal hypertension. Decompression of splenic venous outflow occurs through the short gastric veins to the coronary vein, producing variceal channels in the gastric cardia and fundus and, consequently, gastric variceal hemorrhage [5, 6]. Gastric variceal hemorrhage occurs rarely in wandering spleen [4, 5].

The treatment of wandering spleen is surgery. In patients with no torsion, splenopexy should be preferred [1, 7]. Various techniques of splenopexy have been reported in the literature [2]. But, recurrence of the splenic torsion is an important complication of this technique. If torsion is present, splenectomy becomes necessary [1, 7]. Our patient's gastric variceal bleeding was life threatening, and urgent splenectomy was obligatory for the treatment. After surgery, her symptoms were relieved, and she had no rebleeding.

In conclusion, wandering spleen is a very rare disease which should be considered in the differential diagnosis of patients with gastric variceal bleeding.

Conflict of Interest The authors declare that they have no conflict of interest.

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