CASE REPORT

Wandering spleen, which is torsioned with the distal pancreas

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ABSTRACT

There are many causes of acute abdominal pain. One of them is wandering splenic torsion. We aimed to discuss a case in which the distal pancreas and spleen were torsion together and underwent splenectomy in the light of the literature. A 19-year-old male patient with sudden onset of abdominal pain underwent splenectomy after physical examination and imaging revealed splenic torsion. Early diagnosis is important as life-threatening complications may develop. Emergency surgery should be performed in patients with splenic ischemia. It should be kept in mind that the pancreas may be torsioned along with the spleen. Surgeons need to be careful during splenectomy to avoid injury to the pancreas.

Keywords: Pancreas torsion; splenectomy; wandering spleen.

INTRODUCTION

Wandering spleen is a rare clinical condition. Gastrosplenic, splenorenal, and splenocolic ligaments are loose or absent in its etiology.[1] Congenital or acquired diseases can cause a wandering spleen. About 70–80% of adult cases are women between the ages of 20 and 40.[2,3] The probability of torsion increases due to the long vascular pedicle of the spleen, which can move to a different quadrant as a result of the absence or looseness of these ligaments. The wandering spleen can progress asymptomatically, present as a palpable mass, and if torsion develops, it may present with an acute abdomen.[4]

The treatment of detected wandering spleen is surgery. Splenopexy is preferred if there is no torsion or if circulation in the detorsion spleen is normal. Splenectomy is the only treatment option if the circulation does not return to normal when detorsion if there are infarct areas, and thrombus has occurred in the vascular structures.[5] In this presentation, we aimed to present our case of wandering splenic torsion that we treated in our clinic in the light of the literature.

CASE REPORT

A 19-year-old man presented to the emergency service of our hospital because of severe abdominal pain that began in the morning. Physical examination revealed fullness, widespread tenderness, and defense around the epigastric and umbilicus. His blood pressure was normal. His pulse was 110/min. In the blood count, the white blood cell count was 13000 g/dl, red blood cell count was 12 g/dl. Abdominal computed tomography (CT) showed that the spleen was displaced to the epigastric shadow in the anterior of the transverse colon and was torsioned.

The patient with an acute abdomen was taken to an emergency operation with the present findings. In the observation made with the laparoscope, the spleen shifted to the epigastric region; it was observed that the spleen increased in size and was ischemic, and there was hemorrhagic fluid around it and in the right paracolic area. The cecum, appendix, and ileocecal junction were located in the epigastrium medial to the spleen. There was severe laxity in all tissues of the case. It was decided to switch to an open procedure. The abdomen was entered by passing through the anatomical layers with a

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median incision above the umbilicus. Approximately 1000 cc of hemorrhagic fluid was aspirated. No active bleeding focus was detected. The spleen size was approximately 20 cm. The spleen was ischemic, it was observed that the splenic pedicle and distal pancreas made three complete turns around itself (Fig. 1).

Splenectomy was performed because the ischemia in the spleen did not improve even though the spleen was brought into its anatomical position (Fig. 2). There was no ischemia in the distal pancreas. A drain was placed in the left upper quadrant. The patient was taken to the postoperative service. The patient, whose follow-ups were normal, was discharged on the 3rd post-operative day, planning the necessary vaccinations.

DISCUSSION

The wandering spleen accounts for approximately 0.2% of all splenectomy cases.[6] In its etiology, congenital abnormality of the ligaments holding the spleen in one place, acquired connective tissue diseases, conditions that enlarge the spleen, trauma of pregnancy, and hormonal effects are blamed in its etiology.[7,8] In our case, there was no ligament holding the spleen in place. Only the spleen had a pedicle. The splenic hilum had rotated together with the distal pancreas.

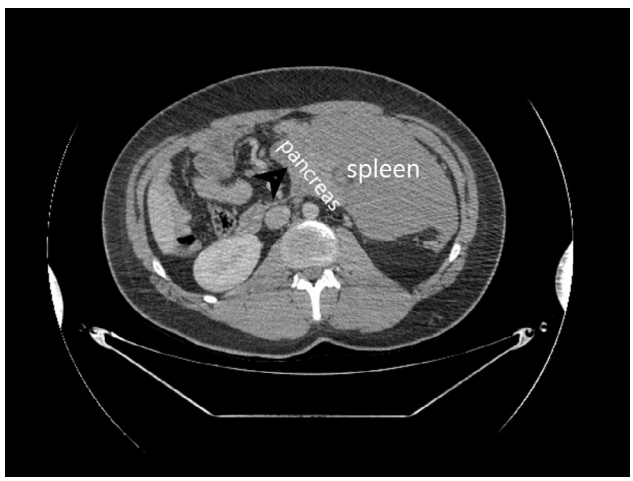

Figure 1. Computed tomography view of the wandering spleen.

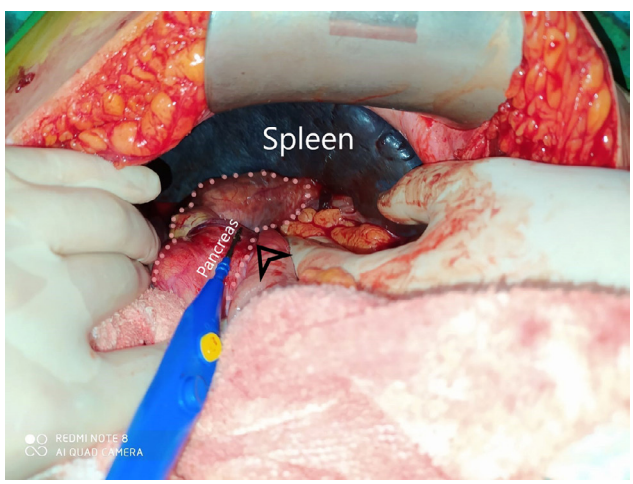

Figure 2. Intraoperative torsion view of the spleen and pancreas.

Some of the patients are asymptomatic, others have subacute or acute pain. The most common presentation in childhood is acute abdominal pain.[4] In acute splenic torsion, there is a splenic infarction causing an acute abdomen in the patient. Patients with torsioned wandering spleen may have fever, nausea, vomiting, palpable mass, peritoneal irritation findings, and leukocytosis. Gastrointestinal obstruction, urinary retention, and portal hypertension may develop due to compression on surrounding organs.[9] Our case was admitted to with signs of acute abdomen due to splenic torsion.

Ultrasonography (US) and CT can be used in the diagnosis of wandering splenic torsion. It is characteristic that the spleen cannot be seen in its normal location. Infarct areas can also be detected in intravenous contrast CT. The spiral appearance of splenic vascular structures on CT indicates torsion. Splenic parenchyma and vascular structures can also be evaluated with Doppler US.[10–12] We preferred abdominal tomography for imaging in our case. It was observed that the spleen was enlarged, its vascular structures were torsioned, it was placed in the midline, and there was dens fluid in the abdomen.

The treatment of wandering spleen is surgery. Splenopexy is preferred if there is no torsion or if the circulation in the detorsion spleen is normal. Splenectomy should be preferred in patients with torsion, irreversible impairment of circulation, thrombus in the vascular structures, and infarcts in the parenchyma. Laparoscopy may be preferred in splenectomy in wandering spleen torsion.[5] In our case, we started the case laparoscopically. Since we saw that the spleen is located epigastric, larger than usual, edematous, and ischemic, and there is a considerable amount of hemorrhagic fluid around the spleen and in the right paracolic area, we switched to the open procedure. It was observed that the spleen was torsioned with the distal pancreas. When the blood supply of the spleen did not improve as a result of the detorsion procedure, we performed splenectomy. Since it was observed that there was no ischemia in the distal pancreas and its integrity was not compromised, no additional intervention was made to the pancreas. During splenectomy, attention should be paid to the distal pancreas while the splenic pedicle is dissected. With a growth in the spleen due to congestion, the splenic pedicle cannot be seen clearly and the distal pancreas may be injured while the splenic artery and vein are ligated.

Conclusion

The wandering spleen should be kept in mind in the differential diagnosis of patients with a palpable mass in the abdomen and migratory spleen torsion in patients with acute abdomen. It should be kept in mind that a wandering spleen may cause an acute abdomen. It should be kept in mind that the pancreas may be torsioned along with the spleen. Surgeons need to be

careful during splenectomy to avoid injury to the pancreas.

Informed Consent: Written informed consent was obtained from the patient for the publication of the case report and the accompanying images.

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OLGU SUNUMU - *ÖZ*

Distal pankreas ile birlikte torsiyone olan gezici dalak

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Akut karın ağrısının birçok nedeni vardır. Bunlardan birisi de dalak torsiyonudur. Distal pankreas ve dalağın birlikte torsiyone olduğu ve splenektomi uygulanan bir olguyu literatür ışığında tartışmayı amaçladık. On dokuz yaşında erkek hasta ani başlangıçlı karın ağrısı sonucu başvurusunun ardından fizik muayene ve görüntüleme sonucunda dalak torsiyonu saptanması üzerine hasta acil ameliyata alınarak splenektomi yapıldı. Dalak torsiyonu sonucu yaşamı tehdit eden komplikasyonlar gelişebileceğinden erken tanı önemlidir. Dalak iskemisi olan hastalarda acil cerrahi yapılmalıdır. Dalak ile birlikte pankreasın da torsiyone olabileceği unutulmamalıdır. Cerrahların pankreasın yaralanmasını önlemek için splenektomi sırasında dikkatli olmaları gerekir.

Anahtar sözcükler: Dalak torsiyonu; pankreas torsionu; splenektomi.

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