CASE REPORT JSLS

Recurrent Ruptured Spleen

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ABSTRACT

Regrowth of splenic tissue after splenectomy for trauma and splenectomy for idiopathic thrombocytopenia purpura have been reported. However, rupture of splenic tissue, either spontaneous or traumatic, that requires a second surgical intervention for hemoperitoneum caused by a ruptured splenic nodule or splenosis has rarely been reported. We report the case of a 43-year-old man in whom hemoperitoneum developed 25 years after he underwent an open splenectomy, after a motor vehicle accident, that required removal of a recurrent ruptured splenotic nodule.

Key Words: Ruptured spleen, Hemoperitoneum, Splenosis, Splenotic nodule.

CASE REPORT

We relate the case of a 43-year-old man who, 25 years before his most recent hospital admission, was involved in a motor vehicle accident and underwent an emergency splenectomy. The patient was doing fine and had recently returned from a business trip where he had acquired a viral-type illness that included coughing and flulike symptoms; he stated he was coughing very hard. After a coughing spell, he had left upper quadrant pain that progressively became worse, and he came to our emergency department. The patient denied any vomiting, hematemesis, or change in bowel habits.

Past medical history was negative, and past surgical history was positive only for his prior splenectomy and ankle surgery at the time of his accident. The patient was taking no medication and was allergic to penicillin. He denied any tobacco or alcohol use and denied having fever, chills, night sweats, or easy bruisability. The patient stated that he did receive a Pneumovax every year as prescribed by his trauma surgeon 25 years prior.

Physical examination revealed the patient to be awake and alert and in no acute distress. His heart rate was 100 bpm, and blood pressure was 135/78 mm Hg. Chest sounds were clear. Heart rate and rhythm were regular with no murmurs or gallops. The abdomen was nondistended and nontender and showed a well-healed midline scar. Auscultation revealed active bowel sounds. There was left upper quadrant tenderness.

The patient's initial hemoglobin level was 14.2 mg/dL with a hematocrit reading of 42.2, which dropped to 12.4 and 38.8, respectively, the following day. Hemodynamic instability did not develop. His electrolyte levels and liver function test results were normal.

The patient's initial computed tomography scan described an area of the left upper quadrant with possible hematoma laceration or possible mass. There was no free fluid in the abdomen. Computed tomography scan 2 days later revealed a 9.0 × 8.4-cm mass **(Figure 1** and **Figure 2)**; however, there now was fluid in the left paracolic gutter and the pelvis, mild left lower lobe atelectasis, and small mesenteric lymphadenopathy. The patient's pain in-

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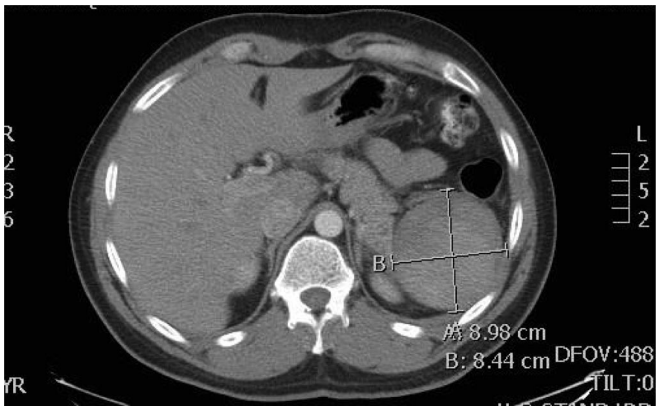

Figure 1. Axial CT of Left Upper Quadrant Mass.

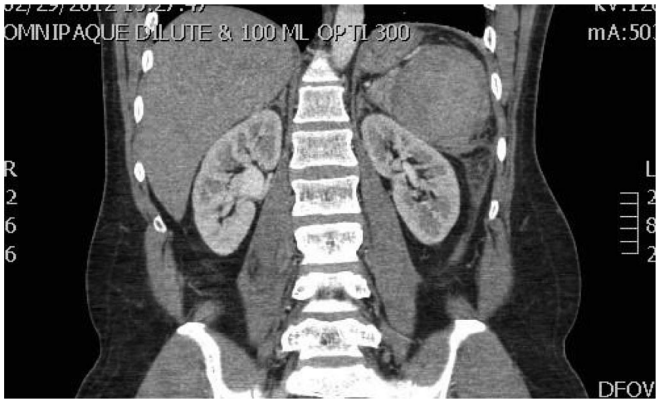

Figure 2. Sagital CT of Left Upper Quadrant Mass.

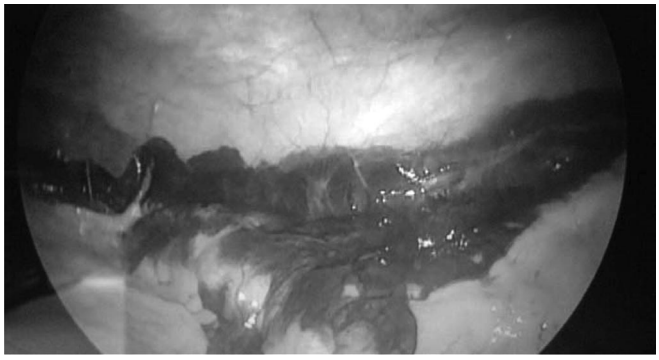

Figure 3. Laparoscopic View of Left Paracolic Gutter Hematoma.

creased in severity, and it was elected to take the patient to the operating room for laparoscopic exploration.

Upon exploration, an 11-cm mass in the left upper quadrant was found, with hematoma tracking down the left paracolic gutter **(Figure 3).** Because of the size of the mass, the procedure was converted to hand-assisted, and the 11-cm ruptured splenotic nodule was removed **(Figure 4).** The hematoma in the abdomen was evacuated, and the patient was discharged home on postoperative day 3 with no complications.

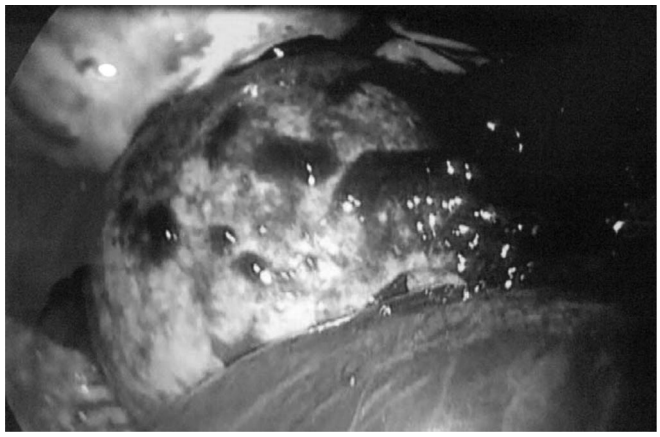

Figure 4. Intra Operative View of Regenerated Spleen.

Figure 5. Surgical Specimen of "Ruptured Regenerated Spleen".

On final pathology, the mass was found to be a densely congested splenic tissue displaying capsular rupture, organizing hemorrhage, and acute splenitis, and was nonmalignant **(Figure 5).**

DISCUSSION

Rupture of a splenotic nodule has rarely been discussed in the literature. A 1990 article by Lanigan discussed spontaneous rupture of splenic tissue occurring 14 years after splenectomy for trauma, which was initially thought to be an ectopic pregnancy. In addition, in 2009 there was a report from Belgium of a traumatic rupture of splenic

tissue 13 years after a splenectomy for idiopathic thrombocytopenic purpura.[1,2,3]

Although this condition occurs rarely, the lesson learned from this finding is that despite a patient undergoing a prior splenectomy, splenic tissue can regenerate, and any abnormality noted for abdominal pain, even after a prior splenectomy injury and/or rupture of a left upper quadrant mass, can still cause regeneration of splenic tissue despite prior surgical removal.[4–14]

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