A Case of Pancreatic Pseudocyst with a Large Subcapsular Splenic Hematoma Treated Successfully by Ultrasonography-guided Percutaneous Drainage

Young-il Kim, Seon-Young Park, Jeong-Hyeon Lee, Won-Ju Kee, Chang-Hwan Park, Hyun-Soo Kim, Sung-Kyu Choi and Jong-Sun Rew
Department of Internal Medicine, Chonnam National University Medical School, Gwangju, Korea

A subcapsular splenic hematoma is a very rare hemorrhagic complication of pancreatitis. We report here a case of pseudocyst with a large subcapsular splenic hematoma in a 43-year-old man who presented with severe left flank pain for one week. Despite the initial conservative treatment consisting of pain control, bowel rest, intravenous fluids and antibiotics, the pain was not relieved. An abdominal computed tomography (CT) was performed, and it showed a pseudocyst that was increasing in size with a large subcapsular splenic hematoma measuring 6×13 cm compared to the images at admission. Ultrasonography (US)-guided percutaneous drainage was performed without any complications, and splenectomy was avoided. After the discharge, the patient remained asymptomatic for eight months. We suggest that percutaneous drainage of a large subcapsular hematoma complicating pancreatitis might be a useful treatment option in selected patients. (Korean J Gastroenterol 2011;57:258-261)

Key Words: Subcapsular splenic hematoma; Pancreatitis; Pseudocyst; Drainage

INTRODUCTION

A pancreatic pseudocyst is a relatively common complication of acute and chronic pancreatitis, and it may be associated with many splenic complications including massive hemorrhage into pseudocyst, sepsis with splenic infarction, and splenic vein thrombosis. However, a subcapsular splenic hematoma is a very rare hemorrhagic complication of pancreatitis. We describe herein a case of pancreatic pseudocyst with a large subcapsular splenic hematoma successfully treated with US-guided percutaneous drainage.
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Fig. 1. Computed tomographic (CT) scan images during the second episode of pancreatitis and in the emergency room. (A) Variable sized multiple pseudocysts in the tail of the pancreas compressed the adjacent structures including splenic vein, gastric fundus (arrow), and splenic parenchyma (arrow heads). (B) A CT scan showed increased size of the pseudocyst with a large subcapsular splenic hematoma (arrows) measuring 5×12 cm in the tail of pancreas.

Pituitary and Associated Structures including the splenic vein, splenic parenchyma and gastric fundus (Fig. 1A). A drainage procedure was not performed because he recovered after the conservative treatment consisting of pain control, bowel rest, intravenous fluids, and antibiotics.

When the patient arrived at the emergency room 12 months after recovery from the second episode of pancreatitis, his blood pressure, pulse rate and body temperature were 100/70 mmHg, 84 beats per minute and 37.0°C, respectively. On physical examination, there was marked abdominal tenderness and rebound tenderness at the left upper quadrant of the abdomen. The laboratory findings showed that the liver function tests, renal function tests and electrolytes were within normal limit. However, there was a leukocytosis (16,200/mm³), increased C-reactive protein (18.2 mg/dL), and decreased hemoglobin (11.7 g/dL) and hematocrit (35.9%). The serum amylase and lipase levels were 113 U/L and 71 U/L, respectively, which were slightly above the normal range. An abdominal CT was performed to rule out a surgical abdomen, and showed increased size of the pseudocyst with a newly developed large subcapsular splenic hematoma in the tail of pancreas measuring 5×12 cm (Fig. 1B).

During the first 5 days of hospitalization, the pain was significantly relieved after initial treatment with intravenous analgesics, antibiotics, fluids and bowel rest. However, on the sixth day, the patient complained of a sudden onset of severe left flank pain not relieved by analgesics, and the hemoglobin levels were decreased (9.7 g/dL). However, there was no hypotension. Another abdominal CT was performed, and it showed an increase in the size (6×13 cm) of the pseudocyst at the tail of the pancreas with a large subcapsular splenic hematoma (Fig. 2A, 2B). Immediate surgical treatment was considered, but the patient refused due to the fear of complications. Therefore, US-guided percutaneous drainage of the hematoma was performed, immediately. About 300 mL of dark colored fluids was drained via a catheter, initially. There were no procedure-related complications.

After the percutaneous drainage, the pain subsided dramatically. Because the amount of the drained fluid decreased markedly and the size of pseudocyst with a subcapsular splenic hematoma was markedly decreased on a follow-up abdominal CT scan (Fig. 2C, 2D), the catheter was removed three weeks after the procedure. There were no other complications or symptoms after the catheter was removed, and the patient was discharged and has remained asymptomatic at the 8-month follow-up.

DISCUSSION

In the present case, a subcapsular splenic hematoma complicating pancreatic pseudocyst at the tail of the pancreas was successfully treated with US-guided percutaneous drainage, and surgical procedures such as a splenectomy and distal pancreatectomy were avoided. Prior to the present case, three cases have been reported to be successfully treated by percutaneous drainage of a subcapsular splenic hematoma. Table 1 shows the three cases. The patients in the cases were all male, had no history of trauma. They all had a history of recent episodes of acute or chronic pan-