Chapter 47
Case on Pseudocyst of the Pancreas, Endoscopically or Surgical Treatment?

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Keywords Pseudocyst • Pancreas • Endoscopy • Surgery • Laparotomy • Gastroscopy • Stent

First Patient

Noninfected giant pancreatic pseudocyst, drained transgastrically.

Diagnosis and Indication for Operation

A 32-year-old obese male patient (BMI 35), known with hyperlipidemia, was admitted to the hospital because of abdominal pain and fever. Patient was in shock and was admitted to the Medium Care department. He was feeling sick and had a heart frequency of 140 PM, blood pressure of 90/45 mmHg, and temperature of 38.7 °C. Abdominal exploration was painful with tenderness in the upper abdomen. After reposition of fluids with good response, a CT scan was performed. There an acute pancreatitis was seen, and no gallstones. No necrotizing component was observed, but the patient was continually observed at the Medium Care department. His reaction to fluids remained satisfactory, but his abdominal pain and fever persisted. One week later, a new CT scan showed a pseudocyst of the pancreas at a retrogastric position (Fig. 47.1). Enteral feeding was given through a duodenal tube.

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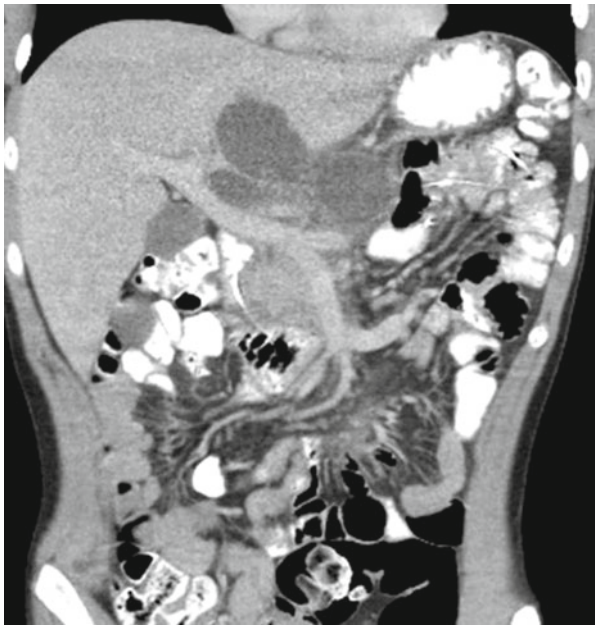

Fig. 47.1 CT scan, the pseudocyst in retrogastric position to subhepatic area

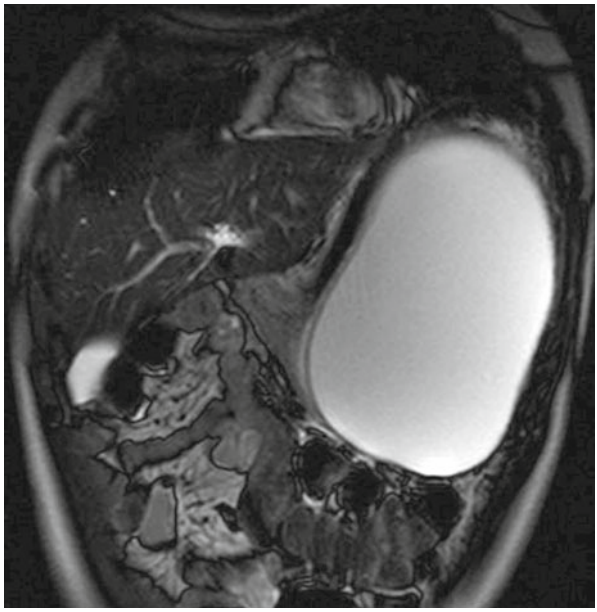

Fig. 47.2 MRCP: pancreatic pseudocyst becoming larger

Weekly controls showed an increasing growth of the cyst with important elevation of the diaphragm and respiratory worsening (Fig. 47.2). Given that there were no signs of infection, our approach was initially conservative. However, due to the increasing abdominal distension and respiratory problems, it was decided to drain the pseudocyst transgastrically by endoscopy.

Fig. 47.3 CT scan after transgastric drainage

Operation

This was performed without problems, draining almost three liters of pancreatic fluid. Various stents were left to communicate the stomach and cyst. Important clinical and imaging improvements were seen immediately after drainage (Fig. 47.3 and Illustration 47.1).

Second Patient

Noninfected giant pancreatic pseudocyst, drained by laparotomy following failed drainage by gastroscopy.

Diagnosis and Indication for Operation

A young obese architecture student, 29-year-old, known with diabetes mellitus type I and insulin treatment, presented acutely with abdominal pain, high amylase, and lipase in the serum. Patient felt sick, had tachycardia, and an upper abdominal tenderness could be palpated. Differential diagnosis was made amongst either acute cholecystitis, duodenal perforation, or acute pancreatitis.

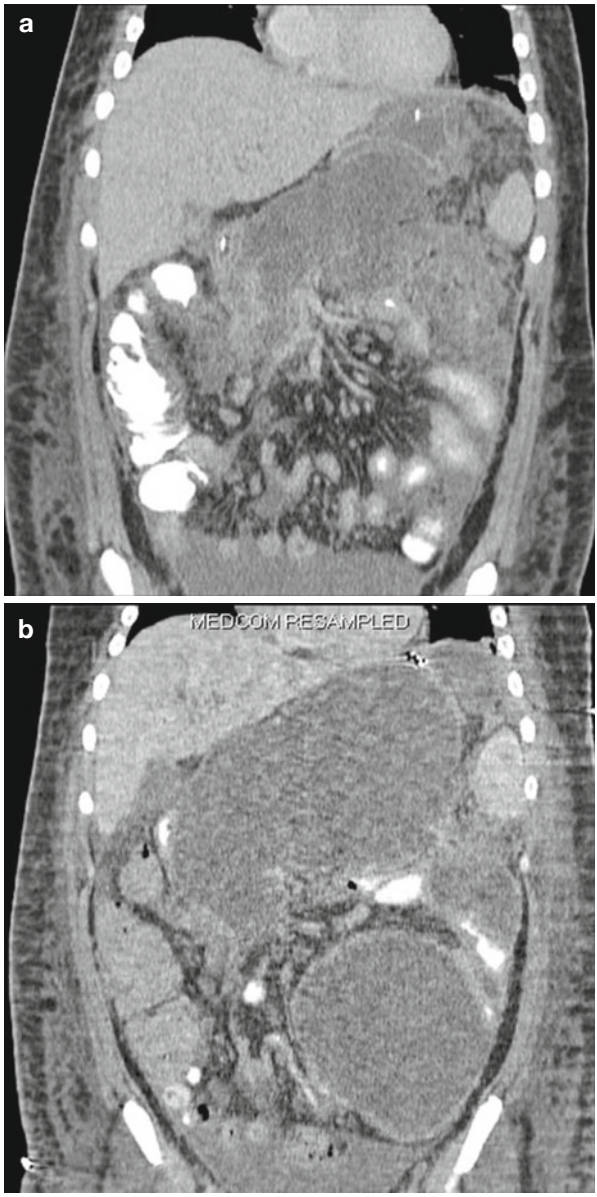

Fig. 47.4 (**a**) CT scan, necrotizing acute pancreatitis with pseudocyst forming. (**b**) CT scan, pancreatic pseudocyst behind stomach

On the CT scan, a necrotizing acute pancreatitis-type Balthazar stage E (score 4), with extensive necrosis score 6, was seen. He was admitted to the Medium Care department and treated initially with oxygen, broad spectrum iv antibiotics, TPN, and physiotherapy. Yet, the situation of the patient worsened, involving fever and more abdominal distension, without respiratory insufficiency. Each ensuing week a control CT scan showed different images. Eventually a growing pseudocyst with retrogastric position was observed (Fig. 47.4a, b). No signs of infection could be

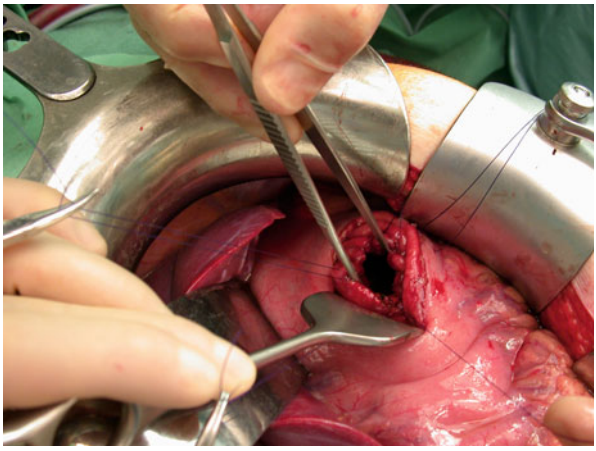

Fig. 47.5 Open transgastric drainage of a pancreatic pseudocyst

seen, but respiratory problems with fever arose. At the multidisciplinary sessions this patient was repeatedly discussed, with a conservative attitude displayed by our side and a more aggressive stance held by the gastroenterologist. The issue was whether to engage transgastric drainage because of the size of the cyst (20 cm), abdominal distension, and progressive respiratory difficulties. Finally 5 weeks after admission, a decision was taken to drain the cyst.

Operation

During gastroscopy and after localizing the cyst, it was possible to pass a guide into the cyst. Yet while putting in the first stent, the patient developed hypotension with gastric bleeding. The gastroenterologist considered the possibility of arterial damage or gastric damage with bleeding and so a decision was made to operate the patient immediately. At upper abdomen laparotomy, bleeding was found present along the small gastric curvature, with damage along the curvature (Fig. 47.5). After repair of this by stitches transgastrically, the huge cyst was drained by opening the posterior gastric wall (Illustration 47.1). Patient recovered on the Intensive Care unit, and his cyst decreased significantly, but did not disappear entirely, being reduced to 5 cm. He is now stable, at home, and resuming his studies.

Discussion

In comparison with the past, surgical attitude to pancreatic pseudocyst has changed to conservative treatment. Pseudocysts do vary by shape and size during the whole acute process and should be controlled by ultrasonography or CT scan. Those that have become infected should be percutaneously drained. The two patients here presented each had a huge growing noninfected pseudocyst while increasingly

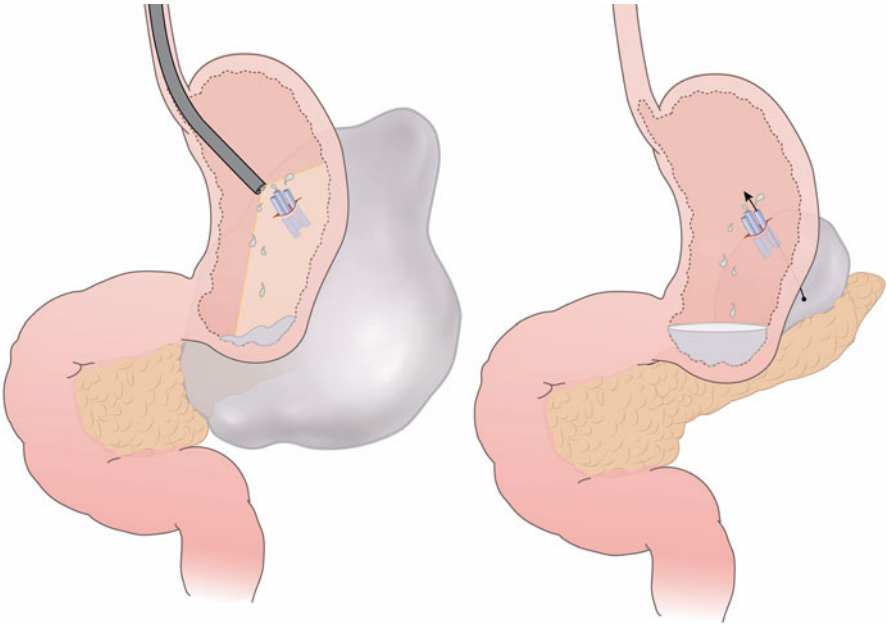

Illustration 47.1 In the case that a huge pseudocyst should be drained the first option will be endoscopically. If failed or because of complications, surgical transgastric drainage should be done

experiencing respiratory problems. In spite of an initial conservative attitude in both cases, drainage was decided. Endoscopic transgastric drainage appears to be the right choice, but in the case of complications the surgeon should always stand by.