

Images in Surgery

Huge pancreatic pseudocyst migrating to the psoas muscle and inguinal region

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A 45-year-old male with alcoholic chronic pancreatitis was admitted to our hospital with complaints of mild upper abdominal pain and discomfort feeling in the left inguinal area in March 2005. A physical examination demonstrated slight tenderness in the epigastric region. In addition, a small bulge with tenderness was noted in the left inguinal area. The laboratory values were all within the normal limits except for an elevated serum amylase level of 405 IU/L (normal: 40-130 IU/L).

Abdominal computed tomography (CT) and conventional magnetic resonance (MR) imaging studies revealed a huge pancreatic pseudocyst spreading upward to the aortic hiatus and downward to the left inguinal region through the psoas muscle along with evidence of chronic calcifying pancreatitis (**Figure 1**). Endoscopic retrograde cholangiopancreatography (ERCP) showed an obstruction of the main pancreatic duct at the head of the pancreas, and therefore the information regarding the upstream pancreatic ductal system could not be confirmed. Meanwhile, MR cholangiopancreatography clearly demonstrated an upstream pancreatic ductal dilatation with a short fistulous tract connecting to the huge pancreatic pseudocyst (**Figure 2**). These findings were consistent with a diagnosis of chronic calcifying pancreatitis with a huge pancreatic pseudocyst involving the psoas muscle and the groin due to a pancreatic fistula arising from the

distal pancreatic duct.

Subsequently, the patient underwent a laparotomy. Following the fenestration of the pancreatic pseudocyst, the migration of the pseudocyst into the psoas muscle and a short fistulous tract between the pseudocyst and the pancreatic duct in the tail of the pancreas were identified. A distal pancreatectomy and a longitudinal pancreaticojejunostomy were performed, thus resulting in a favorable outcome.

Discussion

Pancreatic pseudocyst is a well-recognized complication of acute and chronic pancreatitis. This pancreatitis-related disorder shows an ability to enlarge, migrate, and present in unusual locations, but a few reports have described a pancreatic pseudocyst involving the psoas muscle and the inguinal region.¹⁻³

In the present case, CT and conventional MR imaging studies were useful in defining pancreatic abnormalities, such as dilatation of the distal pancreatic duct, pancreatic calculi, and pseudocyst formation. ERCP failed to visualize the entire pancreatic ductal system due to a pancreatic ductal obstruction. On the other hand, MR cholangiopancreatography was an

essential diagnostic modality because it presented an excellent mapping of the pancreatic ductal anatomy and identified a pancreatic fistula connecting to the pseudocyst.

Percutaneous drainage has become an attractive option to manage pancreatic pseudocysts, even for the psoas or groin pancreatic pseudocyst.¹⁻⁴ However, it shows a limited value for the treatment of patients with a pancreatic pseudocyst that results from a downstream pancreatic ductal obstruction and subsequent upstream ductal disruption.^{4,5} In such complicated cases, including the present case, surgical pancreatic ductal drainage is considered to be mandatory, while MR cholangiopancreatography can also provide reliable information in order to better understand the entire condition of the disease and plan an optimal treatment strategy.

References

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Figure legend

Figure 1. Contrast-enhanced CT examination of the abdomen. (a) A large well-defined fluid collection involving the tail of the pancreas with numerous calculi is seen. (b) The fluid collection migrates into the left psoas muscle.



Figure 2. MR cholangiopancreatography demonstrates pancreatic ductal stricture in the head of the pancreas, dilation of the upstream pancreatic duct, and a pancreatic fistula (arrow) arising from the tail of the pancreas that connects to a huge pancreatic pseudocyst.

