

Unusual self-healing of a traumatic pancreatic fistula that persisted for 16 months

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To the editor,

Pancreatic fistula is a common complication of pancreatic trauma, and endoscopic retrograde cholangiopancreatography (ERCP) has gradually become the first-line treatment for this condition, with a cure rate of approximately 75%-80% (1). Here we report the case of a patient with traumatic pancreatic fistula that failed to improve after ERCP but exhibited unusual self-healing after 16 months.

A 39-year-old male patient who is a cardiologist in our hospital suffered splenic rupture and hemorrhagic shock caused by a car accident 1.5 years ago. An emergency splenectomy was performed, and mild laceration of the pancreatic tail was found intraoperatively. On the third postoperative day, clear liquid with a volume of 70 mL in 24 h and an amylase concentration of 3798 U/L was drained from a drainage tube in the splenic fossa. The patient was diagnosed with a pancreatic fistula, which asymptotically persisted for more than 7 months with 60-120 mL/day of drainage fluid. On August 12, 2016, ERCP was performed to place a 7-Fr pancreatic duct stent of 9 cm in length. Postoperative somatostatin (250 µg/h) was continuously administered, and enteral nutrition was provided via an indwelling nasal feeding tube. The abdominal drainage fluid decreased to 20 mL/day but then increased to 50-70 mL/day one week later, after somatostatin had been withdrawn. An abdominal computed tomography examination revealed a small amount of effusion in the sinus that was localized to the pancreatic tail. Multiple blind lumina were detected in the pancreatic tail using X-ray after contrast agent was injected via the sinus. Oral food intake was progressively restored after the nutrition tube was removed, and the drainage

increased to approximately 100-130 mL/day. Given that the pancreatic fistula branch was not connected to the main pancreatic duct, surgery was recommended. However, the patient refused to undergo surgery and requested continued observation. Six weeks ago, the drainage suddenly decreased to 60-80 mL/day, and outward displacement of the drainage tube of approximately 8 cm was observed. Sinus X-ray showed the formation of a sinus-small intestine fistula. The drainage fluid gradually diminished to almost nothing, and the tube was ultimately removed. Observation for 1 month revealed that the patient's condition was stable.

As a traditional treatment for pancreatic fistula, surgery, which has an effectiveness rate of 90% (2) but may increase trauma and complications, is the last choice for patients who fail to improve after conservative treatment or ERCP (3). Surgical methods include gastrojejunostomy, pancreatic tail resection, pancreatic jejunum Roux-en-Y anastomosis, and pancreatic fistula sinus-jejunum anastomosis (2). Non-surgical treatments for pancreatic fistula also exist. In 2003, Yağmurdu (4) described a case of chronic pancreatic fistula treated with long-acting somatostatin. In recent years, the endoscopic placement of a vascular coil in the main pancreatic duct near the pancreatic fistula has been reported (5).

In this case, surgery was thought to be inevitable, but a sinus-small intestine fistula eventually spontaneously formed; this outcome is similar to that of pancreatic fistula sinus-jejunum anastomosis surgery. Therefore, for a refractory pancreatic fistula, if pancreatic fluid drainage is normal and if infection and other complications such as the accumulation of pancreatic fluid are not observed, waiting may be an option that provides unexpected

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self-healing opportunities. Otherwise, an appropriately timed interventional procedure is required because waiting may lead to severe, life-threatening complications.

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