

Perforation of the splenic artery as a complication of endoscopic pancreatic stent placement in chronic obstructing pancreatitis



Fig. 1 Emergent contrast-enhanced abdominal computed tomography (CT) scan in a 65-year-old man with chronic pancreatitis who developed massive gastrointestinal hemorrhage after endoscopic stenting of the main pancreatic duct. There is evidence of chronic, calcifying pancreatitis as well as an acute transpancreatic hemorrhage.

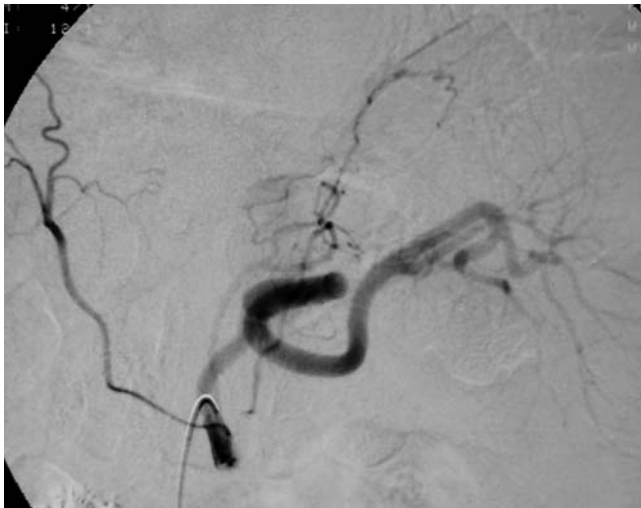


Fig. 2 Angiography showing the mesenterico-hepatic trunk originating from the celiac trunk in the absence of the hepatic artery.

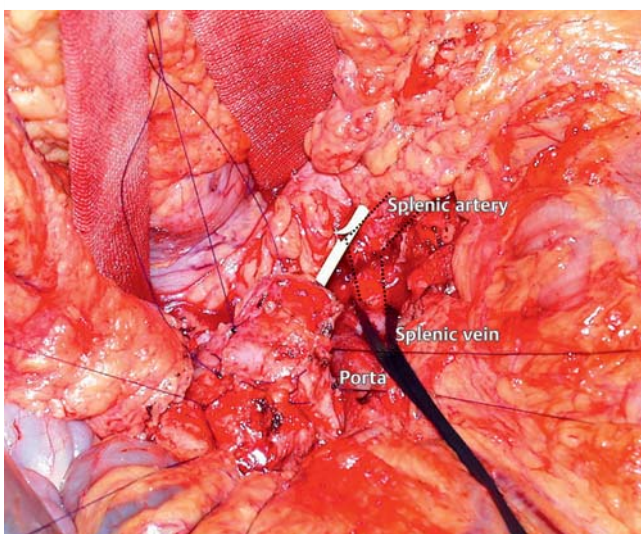


Fig. 3 The surgical site: chronic calcifying pancreatitis with the main pancreatic duct endoprosthesis in situ perforating the splenic artery

Endoscopic pancreatic duct stenting is a widely used treatment option for pancreatic duct stenosis in chronic pancreatitis. In approximately 5%–10% of cases, the procedure itself causes adverse events. Major limitations of pancreatic endoprosthesis therapy are stent dislocation, stent occlusion, and post endoscopic retrograde cholangiopancreatography (ERCP) pancreatitis [1]. Because its long-term benefit is also limited compared with duodenum-preserving pancreatic head resection [2,3], stenting of pancreatic duct stenosis is still debated and is recommended only as a temporary measure to date [4]. A 65-year-old man with chronic pancreatitis due to alcohol abuse developed a massive gastrointestinal hemorrhage 30 hours after endoscopic stenting of the main pancreatic duct (8.5 Fr, 12 cm), requiring emergency hospitalization and blood transfusion. Contrast enhanced computed tomography (CT) (● Fig. 1) revealed a transendoprosthesis hemorrhage into the duodenum due to stent migration into the splenic artery, which explained the fresh blood clots within the duodenum demonstrated by prior emergency endoscopy. Additionally, angiography showed an abnormal arterial anatomy (missing hepatic branch of the celiac trunk resulting in a mesenterico-hepatic trunk) (● Fig. 2). Because of rapid deterioration in the patient's clinical condition, immediate surgical intervention was carried out, including resection of the pancreatic head and body, reconstruction of the splenic artery by patch sutures and formation of a Catell-type pancreaticojejunostomy, and a Braun's jejunojunctionostomy (● Fig. 3). After an uncomplicated early postinterventional course the patient was discharged after 12 days. To date, after more than 3 years of follow-up the patient remains pain-free with no need for specific therapy. This case, to the best of our knowledge, is the first report of a rare but potentially fatal complication of endoscopic stenting in chronic pancreatitis, possibly due to atrophy of the pancreatic parenchyma, forceful pushing of the endoprosthesis, as well as autodigestion or an atypical course of the splenic artery [5].

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