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Case Report

Hemosuccus Pancreaticus: Mysterious Cause of Gastrointestinal Bleeding and Pain

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Abstract

Hemosuccus pancreaticus is a very rare but severe form of upper gastrointestinal hemorrhage. The most common etiology is peripancreatic pseudoaneurysm secondary to chronic pancreatitis. These pseudoaneurysms may either bleed intra abdominally following rupture or may erode into the adjacent hollow viscera and manifest as gastrointestinal bleeding. Pseudoaneurysms rarely communicate with the pancreatic duct and bleeding occurs from the ampulla of Vater in the form of hemosuccus pancreaticus. Due to the rarity of gastroduodenal artery pseudoaneurysms, most of the current literature consists of case reports. Limited knowledge about the disease causes diagnostic difficulty

Keywords: Pancreatitis; Pseudoaneurysm; Gastrointestinal bleeding; Hemosuccus Pancreaticus; Gastroduodenal artery; Superior pancreaticoduodenal artery

1. Introduction

Hemosuccus pancreaticus is an unusual cause of gastrointestinal bleeding [1]. It usually occurs as a complication of chronic or acute pancreatitis, with bleeding from a pseudoaneurysm arising from the peripancreatic arteries [2,3]. Splenic, gastroduodenal and pancreaticoduodenal arteries are the vessels commonly involved while pseudoaneurysm of left gastric artery are less common [4]. We present a rare case of hemosuccus pancreaticus (hemoductal pancreatitis) in a patient with alcoholic chronic pancreatitis. Since patient couldn't afford angioembolisation and having chronic pain for which he wanted definitive management so we decided to

undergo emergency surgery.

2. Case Report

A Forty two-year-old male patient with alcohol induced chronic pancreatitis, who had been medically managed for the past few months, presented having had a sudden onset of epigastric pain and melena for the previous 48 hours. He also complained of dyspepsia, anorexia and steatorrhoea since 2 months. 12 hours after admission he had multiple episodes of hematemesis. On examination, he had pallor, tachycardia of 110 per min and blood pressure of 100/60 mmHg. His abdominal examination did not reveal any abnormal findings except for epigastric and periumbilical tenderness. Nasogastric tube aspiration showed altered blood. His the serum hemoglobin was 6 g/dl (reference range: 14-18 g/dl). Two units of PCV transfused. An emergenc esophagogastroduodenoscopy and colonoscopy was performed which was almost normal. A computerized tomography scan of the abdomen and pelvis plus CT angiography showed chronic calcific pancreatitis with small pseudoaneurysms noted along proximal and distal segments of gastroduodenal artery with acute haemorrhage in pancreatic duct suggesting hemosuccus Pancreaticus. Due to the ongoing bleeding and hemodynamic instability, the patient had to undergo emergency surgery. During intraoperative period, we injected needle with syringe in pancreatic duct,blood was aspirated. Then we opened pancreatic duct:calculi, blood clots and fresh bleed noted. Gastroduodenal artery identified and ligated at base. Superior pancreaticoduodenal artery was eroded from calculi, which was underrunned with 5-0 prolene. Lateral pancreaticojejunostomy was done. Surgery was uneventful. Post operative period was uneventful. No fresh episodes of hematemesis and malena were noted.

3. Discussion

Chronic and acute pancreatitis are the most common cause of pseudoaneurysms arising from the peripancreatic arteries [3]. Pseudoaneurysms may result from either auto digestion of the peripancreatic artery or erosion of a pseudocyst into the artery and conversion of its cavity into a pseudoaneurysm [3,5]. The splenic artery is the most common artery involved (60-65%) followed in decreasing order of frequency by gastroduodenal (20-25%), pancreaticoduodenal (10-15%), hepatic (5-10%) and left gastric arteries (2-5%) [6-9]. The bleeding may manifest itself as hemosuccus pancreaticus or wirsungorrhea (bleeding into the pancreatic duct), upper or lower gastrointestinal hemorrhage due to erosion into adjacent hollow viscus, intraabdominal hemorrhage or as a sudden increase in the size of the pseudocyst [1,3,6]. Ruptured or bleeding pseudoaneurysms are associated with a mortality rate of 12-57% [6]. Although angiography is the gold standard for diagnosis and for characterizing the exact anatomical site, the pseudoaneurysm can invariably be demonstrated on a contrast enhanced CT scan [10]. In addition, the characteristic “to and fro sign” and bidirectional flow at the pseudoaneurysm neck may be demonstrated on ultrasound Doppler and can be diagnosed [11]. However, a thrombus inside the pseudoaneurysm and adjacent bowel gas often result in false negative findings on ultrasound Doppler and should not preclude a contrast-enhanced CT scan. In hemodynamically stable patients, angio-embolization gives good immediate results in 67-100% of cases [4,12-14]. However, in patients who are hemodynamically unstable, where angiography is unavailable or embolization is unsuccessful, emergency surgery is required. In addition, surgery is required in 17-37% patients with recurrent bleeding

following embolization [15]. Also in the present case, contrast-enhanced CT demonstrated the pseudoaneurysm arising from the gastroduodenal artery. However, due to some technical issues for embolisation and hemodynamic instability, the patient had to undergo emergency surgery. The choice between simple ligation of the offending vessel and excision of the pseudoaneurysm is largely dictated by anatomical location, previous surgery, associated pathology, hemodynamic stability and the risk of re-bleeding and procedure-related mortality [6,7,9,14]. Deroofing the pseudoaneurysm, preferably after proximal and distal arterial control, evacuation of the clot and suture ligation of the affected artery is recommended at surgery. Most surgical series have a documented success rate of 70-85% with mortality rates of 20-25% and rebleeding rates of 0-5% [6,7,9,14]. Thus, pseudoaneurysms of peripancreatic arteries may arise as a complication of acute or chronic pancreatitis and can result in life threatening hemorrhage. A diagnosis can usually be made on contrast-enhanced CT scan. Angiography provides the exact localization and the possibility of embolization which, in a significant number of patients, might be adequate treatment. Surgery is required when embolization fails or is unavailable, when there is recurrence of bleeding after embolization or in case of hemodynamic instability.

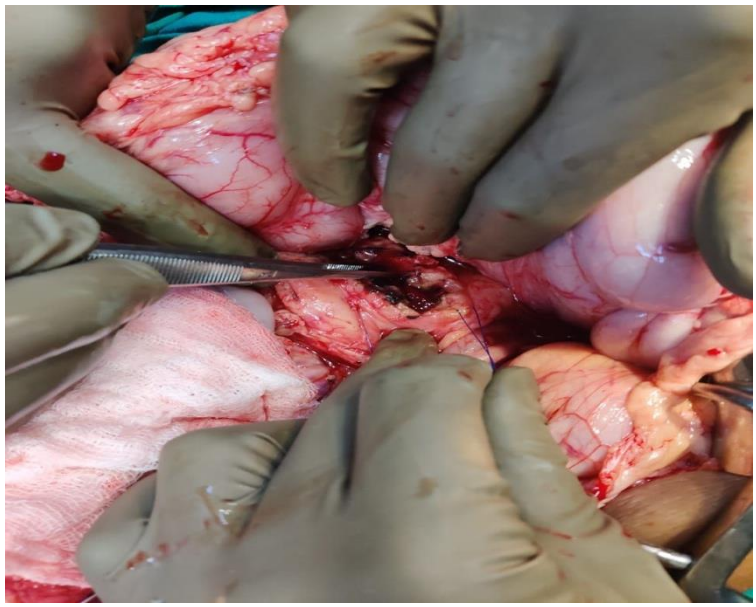

Figure 1: Interop picture showing blood clots in pancrearic duct

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