



Hemosuccus Pancreaticus: A Rare Case of Upper Gastrointestinal (GI) Bleeding

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Authors' contributions

This work was carried out in collaboration among all authors. All authors read and approved the final manuscript.

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Case Report

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ABSTRACT

Hemosuccus pancreaticus is a life-threatening clinical entity. It is defined as bleeding from ampulla of Vater in which blood enters into duodenum from pancreatic duct. Hemosuccus pancreaticus may be due to the rupture of pancreatic pseudoaneurysm resulting in bleeding. Here is a rare case of active bleeding through main pancreatic duct into duodenum leading to GI bleeding. The incidence is 1:1500 case of GI bleeding. In this case report, we will discuss a case of 52-year male with complaints of pain in abdomen with recurrent episodes of melena in the past 2 months. Patient underwent CECT (Abdomen + pelvic) which suggestive of pseudoaneurysm of gastro duodenal artery followed by pseudoaneurysm embolization with coil microcatheter.

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1. INTRODUCTION

Hemosuccus pancreaticus is a life-threatening clinical entity. It is defined as bleeding from ampulla of Vater in which blood enters into duodenum from pancreatic duct. Hemosuccus pancreaticus may be due to the rupture of pancreatic pseudoaneurysm resulting in bleeding. Here is a rare case of active bleeding through main pancreatic duct into duodenum leading to GI bleeding. The incidence is 1:1500 case of GI bleeding. It was first reported in literature 1931 by Lower and Farrell [1] as bleeding from an aneurysm of splenic artery coming via the pancreatic duct and ampulla of Vater to duodenum. The development of endoscopic as well as interventional radiology changed the diagnostic and therapeutic approach to various causes of GI bleeding. The newer diagnostic modalities like CECT, upper GI endoscopy reveal other rare causes of upper GI bleeding.

2. CASE REPORT

A 52-year male came to outpatient department with pain in abdomen, which was acute in onset, intermittent in nature. He also complaints of recurrent episodes of melena in the last 2 months. Patient was known case of alcoholic 6 years. On physical examination, patient was

conscious, oriented, with following vitals; pulse was 86/min, bp;130/80 mm of Hg; respiratory rate was 22/min. patient has severe pallor and jaundice. Laboratory investigations revealed a blood hemoglobin 3.4g/dl (reference range: 11–15 g/ dL). with total bilirubin 2.3mg/dl, for which patient underwent 3 times blood transfusion after admission. Computed tomography (CECT) showed pancreatic parenchymal calcification noted in body and tail region, with evidence of few hypodense enhancing area noted involving head and body region of pancreas, largest measuring of 19*10mm in neck region suggestive of pancreatic pseudocyst (Fig. 1). Evidence of focal outpouching of size 7*5mm noted in pancreatic head region is seen originating from gastro duodenal artery. Patient underwent gastroduodenal artery pseudoaneurysm embolization with coil microcatheter; visceral artery embolization for gastro intestinal bleeding with micro catheter.

3. DISCUSSION

“Hemosuccus pancreaticus is most commonly caused by a rupture of aneurysm associated with acute or chronic pancreatitis. Pseudoaneurysms of the hepatic, gastroduodenal and pancreaticoduodenal arteries have also been reported as sources of bleeding” [2,3]

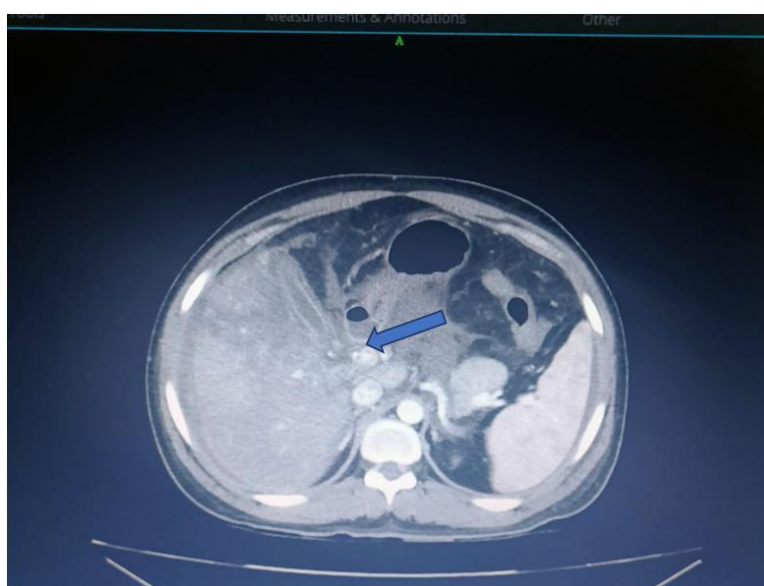


Fig. 1. CECT abdomen venous phase showing the hyperdense filling defect (blue arrow) within the gastroduodenal artery

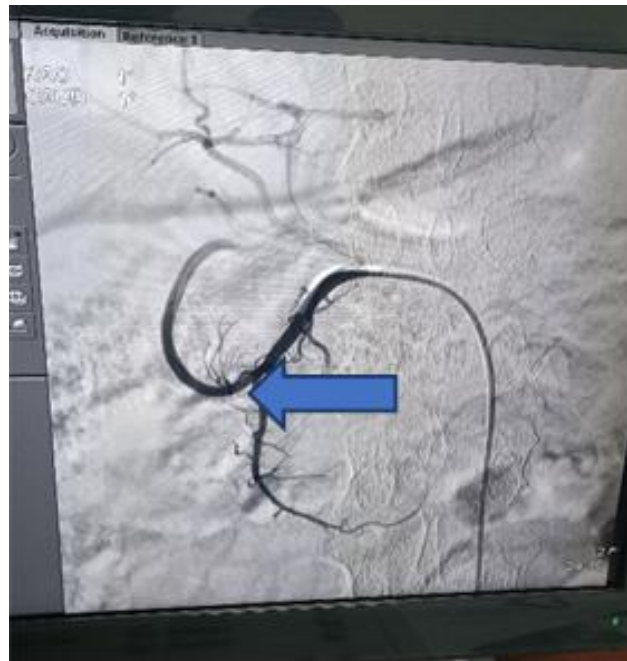


Fig. 2. Pre operative: DSA showing pseudoaneurysm (blue arrow) Gastroduodenal artery aneurysm

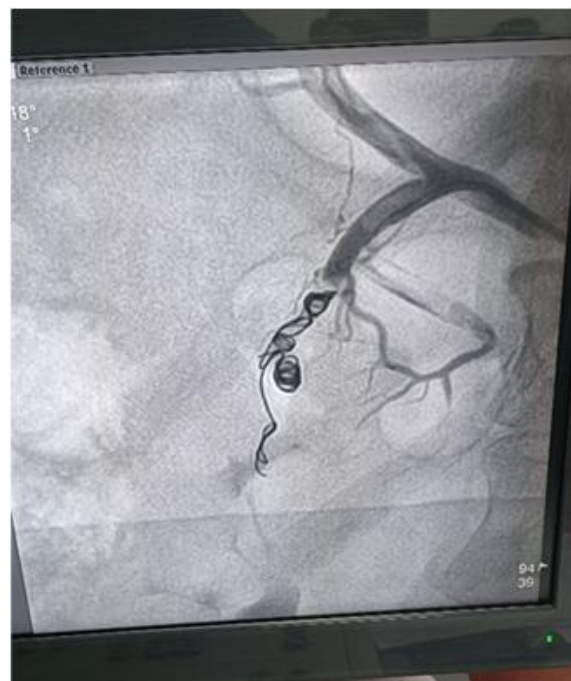


Fig. 3. Post operative: Gastroduodenal artery cannulation by using microcatheter

“HP is a rare entity of acute alimentary tract haemorrhage. Estimates to occur in about 1/1,500 GI bleeding cases have a strong male predilection (about 7:1). Because it is rare, it is missed easily. The mean age of onset is between 50-60 years old. It is highly correlated

with alcohol exposure and other risk factors that are attributed to chronic pancreatitis development. No study or research shows any race or ethnicity superior to each other in terms of prevalence and incidence” [4].

3.1 Etiology of Haemosuccus Pancreaticus ETHICAL APPROVAL

“Most common cause is Pancreatic inflammation whether acute, chronic or hereditary, pancreatitis considered being the most common cause of HP, responsible for about 80% of the cases. Pancreatitis promotes inflammatory alterations within the pancreatic ducts, which eventually leads to vascular wall rupture. Other causes include arterial aneurysm developed from in or out of the pancreas is considered the second most common cause of HP, responsible for about 6 to 17% of cases” [5]. “Hemosuccus pancreaticus may occur due to pancreatic tumour, Infectious process like brucellosis and syphilis has been reported as case reports.

Clinical symptoms and signs include upper GI bleeding as evidenced by hematemesis and Malena, of which Malena is more common, and epigastric pain resulting from the elevation of pressure in the pancreatic ducts caused by blood clots” [6,7].

“There are two therapeutic options for this entity: surgery and angiographic embolization. Once the hemodynamic situation is under control, interventional radiographic methods are used for initial treatment coil embolization. Haemosuccus pancreaticus either because the pseudocyst is hemorrhagic or because it communicates with and erodes a peri cystic artery” [7]. “HP may result from vascular ulceration caused by an intraductal stones. HP may result from vascular ulceration caused by a dilated and cystic main pancreatic duct, and arterial aneurysm and pseudoaneurysm, known to have a higher frequency in chronic pancreatitis” [8,9].

4. CONCLUSIONS

HP may be the cause of upper GI bleeding in a patient with a history of chronic pancreatitis. Investigations should be carried out on all patients to get a diagnosis, ideally when there is active bleeding. These include CECT, selective arteriography of the celiac trunk and superior mesenteric artery, upper digestive endoscopy. In present case, contrast-enhanced computed tomography produced a high positive yield comparable to selective angiography.

CONSENT

As per international standard or university standard, patient(s) written consent has been collected and preserved by the author(s).

As per international standard or university standard written ethical approval has been collected and preserved by the author(s).

COMPETING INTERESTS

Authors have declared that no competing interests exist.

REFERENCES

1. Lower WE, Farrell JT. Aneurysm of the splenic artery: report of a case and review of literature. *Arch Surg.* 1931;23:182– 90.
2. Fernandez-Cruz L, Pera M, Vilella A, Llovera JM, Navasa M, Teres J. Hemosuccus pancreaticus from a pseudoaneurysm of the hepatic artery proper in a patient with a pancreatic pseudocyst. *Hepatogastroenterology.* 1992;39:149–51.
3. Rao RC, Kumar A, Berry M. Pseudoaneurysm of anomalous right hepatic artery as a cause for hemosuccus pancreatitis. *Gastrointest Radiol.* 1987;12: 313– 4
4. Yu P, Gong J. Hemosuccus pancreaticus: A mini-review. *Ann Med Surg (Lond).* 2018;28:45-48. [PMC free article] [PubMed]
5. Schmitz D, Hansmann J, Rudi J. Hemosuccus pancreaticus due to a small arterial pseudoaneurysm detected by CE-EUS and successfully treated with angiographic coiling (with video). *Endosc Ultrasound.* 2021;10(6):476-478. [PMC free article] [PubMed]
6. Suter M, Doenez F, Chapujs G, Gillet M, Sandblom P, (1995) Haemorrhage into pancreatic duct (haemosuccus pancreaticus) recognition and management. *Eur J Surg* 161:887-892
7. Sugiki T, Hatori T, Imaziumi T, Harada N, Fukuda A, Kamikozury H et al. Two cases of Hemosuccus pancreaticus in which haemostasis was achieved by transcatheter arterial embolization ,*J Hepatobiliary pancreat Surg.* 2003;10:450-454
8. Risti B, Marincek B, Jost R, Ammann R. Hemosuccus pancreaticus as a source of obscure upper gastrointestinal bleeding: three cases and literature review. *Am J Gastroenterol.* 1995;90:1878-1880.

9. El Hamel A, Parc R, Adda G, Bouteloupas G, Huguet C, Malafosse M, et al. Bleeding pseudoaneurysms and pseudocysts in chronic pancreatitis. Br J Surg. 1991;78:1059–1063.

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