

## Hemosuccus pancreaticus as a rare complication of chronic pancreatitis

Vladimir F. Kulikovskiy\*, Alexander V. Soloshenko, Andrei L. Iarosh, Alexander A. Karpachev, Sergei B. Nikolaev, Alexandra A. Korjova, Angela V. Gnashko

### ABSTRACT

**Aim:** Hemosuccus pancreaticus is one of the rare but difficult to diagnose complications of chronic pancreatitis. The aim of the work is to analyze the possibilities of minimally invasive methods of diagnosis and treatment of patients with chronic pancreatitis complicated by a spurious aneurysm of the splenic artery. **Materials and Method:** In this work, it is shown a retrospective analysis of the results of treatment of 5 patients with aneurysms of the splenic artery was performed in the Surgical Department of the Belgorod Regional Clinical Hospital of St. Joasaph. In all patients, pancreatitis was an alcoholic etiology. **Results:** The clinical picture manifested in 4 patients with massive gastrointestinal bleeding, in 1 - bleeding in the cavity of pancreatic pseudocysts. **Conclusion:** Therefore, at the present stage, it is necessary to remember that destructive pancreatitis is increasingly the cause of duodenal hemorrhage in the form of hemobilia, hemosuccus pancreaticus - from spurious aneurysms of the branches of the celiac trunk.

**KEY WORDS:** Chronic pancreatitis, Gastrointestinal bleeding, Hemosuccus pancreaticus

### INTRODUCTION

Hemosuccus pancreaticus is one of the rare but difficult to diagnose complications of chronic pancreatitis.<sup>[1,2]</sup> Nowadays, it is known that the main cause of hemosuccus pancreaticus is a spurious aneurysm of the splenic artery, which is opened due to pancreatonecrosis or trauma in the Wirsung's duct and blood through the papilla Vateri goes to the duodenum.<sup>[3-5]</sup> Surgical tactics in chronic pancreatitis, complicated by spurious aneurysm of unpaired visceral arteries, consists in the fact that, with their small size, not associated with the ductal system of the pancreas, X-ray endovascular occlusion or implantation of the stent graft is indicated. With spurious aneurysm forming in the cavity of postnecrotic cysts, the presence of pancreatic hypertension, calcification of the parenchyma of the pancreatic, patients need surgical treatment aimed at eliminating aneurysms, and radical treatment of chronic pancreatitis. To reduce the risk of profuse intraoperative bleeding with subsequent open interventions, it is advisable to perform an X-ray endovascular intervention as the first stage.<sup>[6-8]</sup>

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### MATERIALS AND METHODS

In this work, it is shown a retrospective analysis of the results of treatment of 5 patients with aneurysms of the splenic artery was performed in the Surgical Department of the Belgorod Regional Clinical Hospital of St. Joasaph. All the patients were male, of working age. In all patients, pancreatitis was an alcoholic etiology. The clinical picture manifested in 4 patients with massive gastrointestinal bleeding, in 1 - bleeding in the cavity of pancreatic pseudocysts.

### RESULTS AND DISCUSSIONS

All the analyzed patients were hospitalized from other medical institutions with a bleeding clinic from an unknown source since endoscopy in this pathology is effective only at the beginning of bleeding when it is possible to see the supply of fresh blood or a clot from the papilla Vateri. However, this is only a statement of the situation of hemobilia. On the basis of this fact alone, it is impossible not only for the topical verification of

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Institute of Medicine, Belgorod State University, Belgorod, Russia

\*Corresponding author: Vladimir F. Kulikovskiy, Honored Doctor of the Russian Federation, Institute of Medicine, Belgorod State University, Pobeda Street 85, Belgorod - 308015, Russia. E-mail: [yarosh\\_a@bsu.edu.ru](mailto:yarosh_a@bsu.edu.ru)

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the source of hemorrhage but also for the differential diagnosis of hemobilia and hemosuccus pancreaticus.<sup>[9]</sup> Indirectly, the situation can be clarified by the results of endoscopic retrograde cholangiopancreatography (ERCP) in the presence of filling defects: A blood clot in the ducts, pseudocyst cavities in the pancreas, bile duct, or arterial fistula after a liver injury. Taking this into account, 2 patients underwent a laparotomy twice with an ineffective search for a source of bleeding.

#### A Clinical Example

Patient K., 53 years old, entered the Surgical Department of the Belgorod Regional Clinical Hospital of St. Joasaph on 21.04.2010 with complaints of a loose stool with low blood, pain in the upper abdomen. He has been sick for the past 5 years when the above-mentioned complaints began to be disturbed from time to time. Repeatedly, he was treated in the surgical departments with a diagnosis of intestinal bleeding from an obscure source. In 2003, pancreatic pseudocysts were internally drained. In 2009, a diagnostic laparotomy was performed in connection with gastrointestinal bleeding - no source of bleeding was found. On the day of receipt, a colonoscopy was performed - no pathology, endoscopic signs of a massive bleeding from a source located in the small intestine. 22.04.2010 gastroscopy and colonoscopy control - atrophic gastritis, forming polyp of the middle third of the transverse colon, moderately pronounced surface typhlitis. The patient underwent standard hemostatic therapy; a decision was made to perform angiography at the height of the bleeding. 02.06.2010 at the height of bleeding performed duodenoscopy. The duodenal papilla is conical in shape, from which jet arterial bleeding is noted. To determine the source of bleeding (exclusion of hemobilia) ERCP, papillotomy were performed. ERCP - the common bile duct and intrahepatic bile ducts are not dilated, there are no intraluminal formations. Selective cannulation of the Wirsung's duct - the contrast is discharged into the bloodstream; there is no contrast of the Wirsung's duct. 02.06.2010 abdominal aortography is repeated, on which no pathology has been found. With spiral computed tomography in the body of the pancreas, an enlarged spleen artery is found up to 8–9 mm, which makes a bend at the top of which a saccular aneurysm with a thin neck is determined. The dimensions of the aneurysm bag are 7 mm; the width of the lumen is 1–2 mm. An aneurysm is intimately attached to the Wirsung's duct [Figure 1].

11.06.2010 endovascular intervention - embolization of the splenic artery is performed and on 24.06.2010 the patient was discharged in a satisfactory condition. It is examined in 1 month - there is no pathology.

#### A Clinical Example

The second clinical observation demonstrates the results of treatment of a patient with bleeding into

the pancreatic cyst cavity. Patient P., 37 years old, Surgical Department of the Belgorod Regional Clinical Hospital of St. Joasaph on 12.22.2014 with complaints of aching pain in the upper abdomen of moderate intensity, a decrease in appetite and body weight, an increase in the volume of the abdomen. He is sick for about 2 years when he suffered acute alcoholic pancreatitis, pancreonecrosis with the outcome of pancreatic pseudocysts observed with the surgeon at the place of residence. Deterioration of the condition about 2 months ago, when after an error in the diet against the background of abdominal pain syndrome began to notice an increase in the volume of the abdomen. In the course of the examination, a clinical diagnosis was made: Chronic pancreatitis and exacerbation. A pseudocyst of the pancreas revealed in the abdominal cavity, internal pancreatic fistula, and enzymatic ascites. 23.12.2014 – stenting of the Wirsung's duct (stent with carbon coating with inclusion of silver nanoparticles with coating, patent of the Russian Federation № 129397), percutaneous drainage of the abdominal cavity. With a control ultrasound of the abdominal cavity - in the gland bag is an acute liquid cluster with a volume of up to 200 ml. On December 25, 2014 the patient performed internal cystogastric drainage of the liquid accumulation of the gland box (endoscopic cystogastroanastomosis with a carbon-coated stent with inclusion of silver nanoparticles with coating, patent of the Russian Federation No. 129397).<sup>[10]</sup> In the post-operative period, a positive dynamics were observed in the form of a reduction in pain syndrome and normalization of the amylase level in both the biochemical blood analysis and ascitic fluid against the backdrop of therapy. However, 12.01.2015 there are clinical and instrumental signs of gastrointestinal bleeding. With ultrasound - a false aneurysm in the pool of the splenic artery complicated by gastrointestinal bleeding. The patient under emergency indications underwent X-ray endovascular embolization of the splenic artery [Figure 2].

On the 7<sup>th</sup> day, after the X-ray endovascular intervention, the patient was discharged in satisfactory condition under the supervision of the surgeon at the place of residence.

## CONCLUSION

Gastrointestinal bleeding occurs with a variety of diseases, which, according to their origin and development mechanism, are not infrequently fundamentally different from each other. Currently, more than 100 diseases are known, causing them, and if the diagnostic and treatment algorithms for ulcerative gastroduodenal bleeding are defined quite clearly, then regarding non-ulcer bleeding the problem is far from being resolved. Therefore, at the present stage, it is

