

Multiple Episodes of Upper Gastrointestinal Bleeding Revealing a Splenic Artery Aneurysm

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Abstract: The aneurysm of the splenic artery is a rare entity. the diagnosis is not always easy, because of the nonspecific symptomatology. We present the case of a 68-year-old woman treated for splenic artery aneurysm (SAA), who had a history of multiple digestive bleeding. a 68-year-old woman with no medical history, who had several episodes of hematemesis for 3 months. the oeso-gastroduodenal fibroscopy being negative, a thoracoabdominal CT was performed, and revealed an aneurysm of the splenic artery measuring 3.5x3x5.2 cm. the patient underwent surgery, resection of the aneurysm was performed with closure of the gastric opening. The following was marked by peritonitis by loosening of the digestive sutures, surgically reworked. The patient dies unfortunately 5 days after the second surgery.

Keywords: Splenic artery aneurysm, True aneurysm, Aneurysm rupture, Intra-gastric bleeding.

INTRODUCTION

The splenic artery aneurysms are rare; however it represents the third localization of abdominal aneurysms, and the first among the digestive arteries [1]. SAAs are discovered most often fortuitously [3]. Since their rupture SAAs leads to sudden deterioration of the patient's condition due to massive bleeding, fatal in most cases, a proper diagnosis is usually made in the course of post-mortem examination [10].

CASE REPORT

68-year-old woman, with no medical history, admitted to the department of gastroenterology, for the exploration of hematemesis. for three months the patient presented multiple episodes of minimal upper gastrointestinal bleeding. without hemodynamic repercussions. The oeso-gastroduodenal fibroscopy performed twice showed only nonspecific signs of chronic gastritis. Thoracoabdominal CT was performed to complete the etiological research. We then discover an aneurysm of the splenic artery measuring 3.5x3x5.2 cm, and containing parietal thrombus. this aneurysm is in very close contact with the posterior gastric wall.

Given the high risk of bleeding we decided to propose a repair by open surgery. The anatomical disposition of the aneurysm being unfavorable to an endovascular repair. A median laparotomy is performed and shows a macroscopically atheromatous aneurysm,

with inflammatory remodeling around. with fistulization on the posterior-inferior wall of the stomach.

The aneurysm was resected with ligation of the splenic artery without splenectomy. moreover, the gastric rupture is repaired by a direct suture on the resorbable thread.

The outcomes were marked by intense abdominal pain on the 4th day, with the installation of severe sepsis. we then discussed the diagnosis of postoperative peritonitis a surgical reoperation confirmed the peritonitis, and found as cause a septic laceration of the digestive sutures.

Unfortunately, the patient died 5 days after the reintervention in intensive care of a decompensated septic shock.



Fig-1 (a;b): CT views showing the splenic artery aneurysm and its proximity to the posterior gastric wall

DISCUSSION

SAA's are most often diagnosed fortuitously, during a radiological scan either during a surgical procedure for a hemoperitoneum. The most common sign of rupture is epigastric pain [5,6]. The clinical presentation of unruptured SAA is largely nonspecific and variable [7, 8]. The risk of rupture is much greater in false aneurysms (37 to 47%) compared to true aneurysms (2 to 3%), the mortality is 90% [9]. In our case, there was chronic irritation of the gastric wall by the aneurysm, which led to the creation of a digestive fistula. The spontaneous rupture of true SAA's is found for aneurysms over 2 cm in diameter, and in pregnant women. Intra-peritoneal rupture is manifested by hypovolemic shock and acute abdomen [15,16]. Bleeding into the stomach is rare with true SAA's. A few cases of possibly true SAA's with intragastric bleeding were reported, but the histologic confirmation of them being true aneurysms was not confirmed [17, 18]. Unlike true SAA's, intragastric bleeding is a common feature of pseudoaneurysms of the splenic artery [19, 20]. Recurrent and minimal bleeding in intra-gastric is seen in the case of our patient. Endoscopic exploration did not allow the diagnosis or the detection of specific signs. The diagnosis was only unveiled with CT of his abdomen.

No universally accepted guidelines are available for the management of SAA. However, a number of case series and reviews have outlined a few

principles for patient management. Most small (<2.0 cm) asymptomatic SAA's can be monitored effectively with serial imaging [9].

Splenectomy should be avoided as possible to prevent post-splenectomy complications: thrombocytosis and immunodeficiency [15]

In the case of unruptured SAA, endovascular surgery can be offered in first-line, if anatomical constraints permit, and open surgery can be followed up in cases of inefficient non-invasive methods or complications related to perforation or migration of embolization coils in the digestive tract [19].

In specific cases, it may be necessary to perform a circular or subtotal resection of the pancreas and a splenectomy [20-22*]. In the case of ruptured SAA, accompanied by a sudden deterioration of the general condition due to hypovolemic shock during massive bleeding in the peritoneal cavity or gastrointestinal tract, the situation is completely different. In our opinion, as well as in the opinion of other authors, in such situations, immediate laparotomy remains the best course of action [10,11]

Surgery performed in these conditions has more complications, among which the most frequent is iatrogenic fistula of the pancreas. Laparotomy in a patient-induced bleeding caused by massive bleeding

aneurism is a life-saving procedure, the success of which depends mainly on the speed of the decision to perform laparotomy and the experience of surgeons and anaesthesiologists forming the therapeutic team.

CONCLUSION

The diagnosis of SAA should be considered when no other etiology is identified for recurrent upper gastrointestinal bleeding. Endoscopy and ultrasound are not helpful in excluding an SAA.

Splenic artery aneurysm can be a cause of bleeding to both upper and lower parts of the gastrointestinal tract, and the aneurysm rupture is usually of a dramatic and life-threatening course.

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