

Massive Upper Gastrointestinal Bleeding from a Splenic Artery fistulized in the stomach : Case Report

rare case of massive lower gastrointestinal bleeding from a ruptured splenic artery aneurysm

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Abstract:

Significant upper gastrointestinal bleeding (HDH) can be life-threatening. Splenic artery aneurysm (ASA) is a rare etiology. We report the case of a 72-year-old woman who presented to the emergency room following HDH made up of several episodes of high abundance of hematemesis associated with hemodynamic instability, due to an aneurysm of the splenic artery fistulized in the 'stomach. She underwent an embolization of the splenic artery (SA) which is currently considered the first-line treatment, and the major risk of which is the occurrence of a splenic infarction. In this case, it has been shown that embolization of a ruptured PAC is conservative and effective treatment.

Keywords: splenic artery aneurysm; CT angiography; Upper gastrointestinal bleeding; arterial embolization.

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I. Introduction:

Aneurysms involving the visceral arteries are rare. Splenic artery aneurysms are one of them and are most often asymptomatic. However, they can rupture in the digestive tract, thus inducing digestive hemorrhage, most often massive, putting the patient's vital prognosis at risk. Endoscopic exploration does not allow a diagnosis to be made and must be supplemented by an abdominal CT angiography. Arterial embolization is becoming increasingly important in the treatment of splenic artery aneurysms, with the risk of developing splenic infarction.

II. Case Report:

A 72-year-old patient previously in good health, no alcohol-smoking intoxication, had a cholecystectomy a year ago by laparoscopy without complications, presented to the emergency department after an episode of syncope preceded by several episodes of hematemesis of great abundance. On admission, she was pale, sweaty, with signs of hypovolemic shock (BP 80/40 mmHg, tachycardia 110 bpm) with fresh melaena on digital rectal examination. hemoglobin of 6.7 g / dL and a functional renal failure with urea: 0.78g / l creat: 7g / l, the rest of the balance sheet, particularly the crase balance, was normal. The patient, on admission, was placed on filling with transfusion (in total 4CG and 2PFC). After stabilization, a FOGD was performed, under intubation, showing a significant stasis of reddish blood preventing any exploration of the stomach. She then underwent an abdominal CT angiography (Figure 1), the main finding of which was the presence of multiple spindle-shaped aneurysms of the partially thrombosed splenic artery, one of which comes into contact with the wall of the gastric fundus with a contrast extravasation in the stomach, indicating active bleeding. Splenic artery embolization was therefore performed without incident (Figure 2).

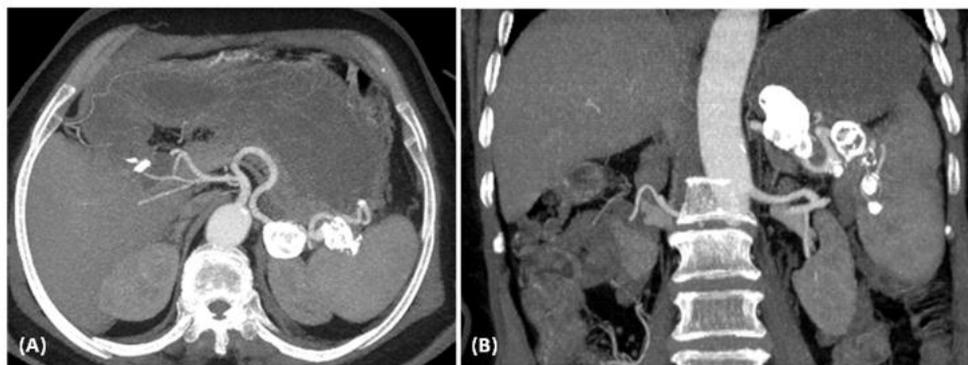


Figure 1: Coupe TDM axiale au temps artériel en MIP (A) et reconstruction coronale en MIP (B): identifiant 04 anévrysmes, au niveau de la partie moyenne et distale de l'artère splénique, à paroi calcifiée et partiellement thrombosés.

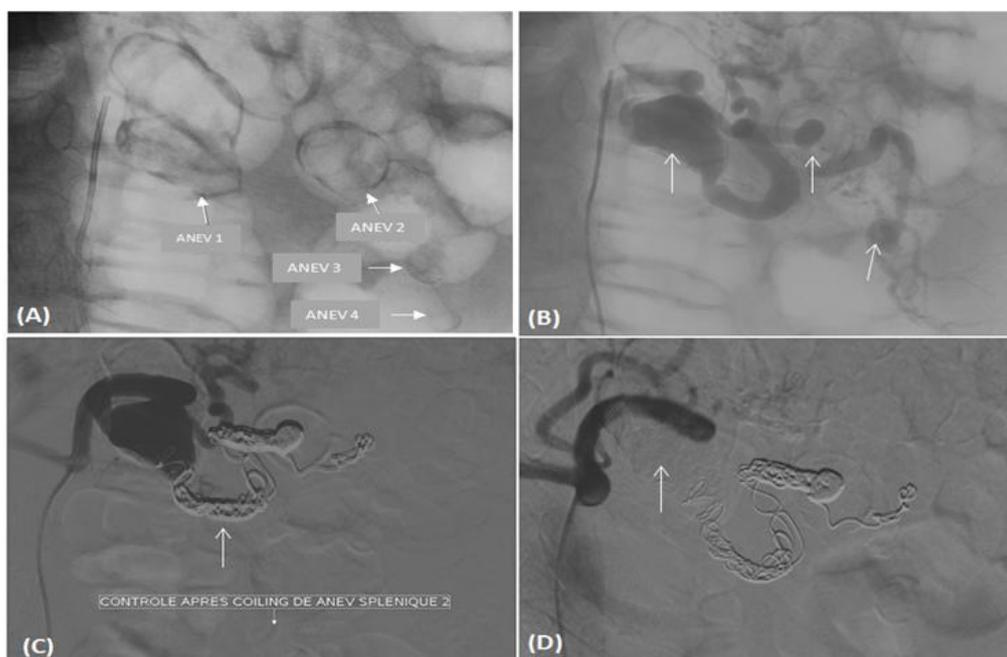


Figure 2 : Artério-embolisation de la 'artère splénique
(A): Anévrysmes calcifiés proximaux (1,2) et distaux (3,4) de l'artère splénique
(B): Opacification de l'artère splénique montrant le caractère partiellement thrombosé de ces anévrysmes
(C): Mise en place de spires métalliques (Coils) dans l'artère splénique distale
(D): Remplissage de l'anévrysmes proximal par la colle biologique avec exclusion de l'artère splénique

Within one week of embolization, the patient was stable, asymptomatic, had no further bleeding episodes, and her hemoglobin was stationary. She underwent a control CT scan, which showed a splenic artery with multiple aneurysms, with calcified wall, partially thrombosed, of which the two which come into contact with the posterior wall of the gastric fundus fully fixed the lipiodol without extravasation of the product. of iodine contrast. The spleen was the seat of a few hypodense areas in relation to the foci of infarction predominant at the upper polar level. Currently, 1 year apart, the patient is doing well, with no recurrence of bleeding.

III. Discussion:

The first case of splenic artery aneurysm (SAA) was described by Beaussier in 1770 [1]. ASA is the third most common intra-abdominal aneurysm after those of the aortic and iliac artery [2; 3]. While patients can present it at any age, it is much more frequently observed in patients aged 50 to 60 years with a predominance of women (68% to 80% of ASA) [4; 5].

The splenic artery, a branch of the celiac axis, is the main arterial branch of the pancreas and spleen. Before reaching the spleen at the level of the splenic hilum, the splenic artery runs along the upper edge of the pancreas, forming branches that pass through the body of the pancreas. The proximity to the pancreas makes the splenic artery vulnerable to enzyme leakage due to acute and chronic inflammation of the pancreas. Enzyme leakage is thought to cause damage to the arterial wall of the splenic artery, resulting in a true and

pseudoaneurysm [6]. In addition, ASA can be caused by or associated with pancreatitis, pregnancy (not a cause of aneurysm formation but associated with a higher risk of rupture), cirrhosis or even portal hypertension, fibromuscular dysplasia, vasculitis, liver transplantation, splenomegaly and trauma. Atherosclerosis is a very rare cause of ASA [5; 7].

Clinically, 97.5% of AAS are asymptomatic. While symptomatic ASA is most often manifested by abdominal pain [8; 9], but also by hemodynamic instability due either to upper or lower gastrointestinal bleeding (in approximately 5% of patients [3]), or to a hemoperitoneum [9]. The risk of rupture is very low (2 to 3%) for true aneurysms, but it is alarming for pseudo-aneurysms (37 to 47%) with 90% mortality [8; 10]. Spontaneous rupture of true AAS is more encountered with aneurysms larger than 2 cm in diameter and with aneurysms in pregnant women [10].

Unlike true AAS, intragastric bleeding is a common feature of splenic artery pseudoaneurysms [11; 12]. Injected CT angiography is a minimally invasive technique for evaluating blood vessels and associated conditions, such as aneurysms or strictures [3].

No universally accepted recommendation is available for the management of ASA. However, a number of case series and reviews have pointed out some principles of patient management. Most small, asymptomatic ASA (less than 2 cm) can be effectively monitored by serial imaging [8; 10]. The advent of endovascular techniques to embolize aneurysms has gained popularity over the past decade due to the low morbidity with an estimated risk of splenic infarction of 40% [8; 13]. These splenic infarctions can be major most often after embolization of the distal third of the splenic artery or hilum, manifest as severe abdominal pain and thus require hospitalization to control the pain with a splenectomy or drainage of splenic abscesses. . [10]. However, open surgical exploration and aneurysmectomy remain the gold standard in the management of ASA [14]. Open surgery is essentially the only recourse in cases of giant ASA, ruptured ASA and ASA complicated by other local and regional pathologies [8]. As for the prognosis of this pathology, Owens and Coffey [15] described a 76% death rate after rupture. In the Mayo Clinic autopsy series of 46 out of 28,512 postmortem examinations, mortality from ruptured aneurysm was 6%. The prognosis for splenic artery aneurysm is therefore not necessarily benign [16].

IV. Conclusion:

ASA is an extremely rare cause of upper gastrointestinal bleeding. A CT scan with injection of contrast product is of diagnostic interest, by showing an aneurysm with extravasation of the contrast product, and therapeutic in guiding treatment by arterial embolization.

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