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Case Report

Medicine

Ruptured Splenic Artery Aneurysm. Report of a Case in the Visceral Surgery Department of the Avicenna Military Hospital

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Abstract

We present the case of a ruptured splenic artery aneurysm occurring in a 39year-old patient treated by embolization. **Keywords:** Aneurysm, Artery, Splenic, Embolization, Endovascular.

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Introduction

Arterial aneurysm is defined as a focal and permanent dilation of the artery with a loss of parallelism of its walls and whose diameter is greater than one and a half times the upstream diameter [2-5]. Splenic aneurysms have numerous etiologies, they are very often asymptomatic, diagnosed fortuitously or following an emergency presentation in the event of rupture [8-5]. The splenic artery aneurysm is a rare pathology, it is the most common aneurysm of the visceral artery, representing approximately 60 to 70% of patients diagnosed with a visceral artery aneurysm [3-5]. The overall rupture rate is between 3 and 10% with a mortality rate for these patients between 10 and 25% [6], it is therefore important to know how to make its diagnosis and to know the different therapeutic modalities.

CLINICAL CASE

This is a 39-year-old patient, with no particular pathological history, mother of 3 children and received at the emergency room for: diffuse abdominal pain, with a predominance in the left hypochondrium, evolving for approximately 4 hours, of progressive onset of moderate to severe intensity. Given the persistence of the symptoms, she consulted for better management.

General Examination

The patient was found to be in fairly good general condition, with anicteric colored conjunctiva and

no edema in the lower limbs. The patient's vital signs were: BP = 112 / 63 mmHg; HR = 87 bpm; $T^{\circ} = 37.6^{\circ}$ C; SpO2 = 97%.

Physical Examination

The abdomen was of normal volume, without laparotomy scar or collateral venous circulation, soft and depressible with diffuse tenderness to palpation and guarding in the left hypochondrium.

Biology:

Hb= 11.6g/dl; GB = 13000 elements/mm3; PLT= 267000 elements/mm3; TP= 82%; GS/RH= O+; Urea= 6 umol/L; Creatinine = 67umol/L; CRP: 5, lipase: 30; ASAT: 11 IU/l ALAT: 7 IU/l; Total bilirubin: 12 umol/l Conjugated bilirubin: 5 umol/l PAL: 36 IU/l.

Abdominal CT scan =

- Fusiform splenic artery aneurysm, measuring 9.9 mm, associated with a large collection of HCG, pushing back the external edge of the stomach, heterogeneous hyperdense on contrast, measuring 65.5x79.2x70mm (TxAPxCC).
- Medium abundance peritoneal effusion visible at the level of all compartments, hematic density at the level of the HCG and the homolateral flank in contact with the aneurysm.





Treatment: The patient underwent splenic artery embolization, the outcome of which was uneventful with improvement in pain.

DISCUSSION

Visceral artery aneurysms are a rare pathology, among which the splenic artery aneurysm is the most frequent [6]. The incidence of splenic artery aneurysm is estimated at less than 1% but increases with age to exceed 10% after 60 years [7]. It is a pathology more frequent in the female gender [1].

Most often asymptomatic, the aneurysm of the splenic artery can however be revealed by a painful syndrome, or during ruptures and can be life-threatening []. In our situation the patient consulted for diffuse abdominal pain. The positive diagnosis of these aneurysms is made easy thanks to the development of imaging, in particular by Doppler ultrasound and abdominal CT scan and angiography [5]. In our patient an emergency CT scan made it possible to make the diagnosis.

The causes of aneurysms are numerous. They can be due to dysplasia, atheromatous, infectious or congenital disease. The pathophysiology of the occurrence of aneurysms is not fully understood [4, 5].

Surgical treatment of splenic aneurysms has long been the most widely used therapeutic modality, but in recent years endovascular techniques have gradually replaced surgery [5]. Our patient underwent splenic artery embolization.

CONCLUSION

Splenic artery aneurysm is a rare condition in clinical practice. Rupture can be life-threatening. Diagnosis is made easier by the availability and

development of imaging techniques. Endovascular treatment is currently the most widely used treatment.

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