

SPONTANEOUS RUPTURE OF SPLENIC VEIN ANEURYSM

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ABSTRACT

Spontaneous rupture of splenic vein aneurysm (SVA) is an extremely rare condition that presents to the emergency department and requires urgent intervention. Preoperative diagnosis is not expected and usually the patient is hemodynamically unstable and there is no time for sophisticated investigations. The important thing is the clinical diagnosis of internal hemorrhage followed by good resuscitation and a thorough laparotomy to know what is going on.

Reported cases are very few and most of them were related to pregnancy. Here we report the first case in a single woman which is not related to pregnancy or portal hypertension.

THE CASE

A 35 years old single female was admitted to the casualty of Wad Madani Teaching Hospital (WMTH) on the 13th of February 2009.

The condition started 8 hours prior to admission when the patient had a sudden onset of severe epigastric pain while she was performing normal daily activities. That was followed few minutes later by dizziness which forced her to lie down. She progressively got cold and collapsed and she was immediately taken to a rural hospital where she was given I.V fluids and referred to WMTH .

At arrival to the surgical department, the patient was found to be drowsy, collapsed, dyspnoec, very pale with cold extremities and absent radial pulsation. Her abdomen was distended, tender and rigid all over. Abdominal tap from the right iliac fossa revealed non-clotted blood. Provisional diagnosis was internal hemorrhage with the possibilities of ruptured ectopic pregnancy or spontaneous rupture of the spleen.

Resuscitation was done and meanwhile a brief history has been obtained:

- there was no history of abdominal trauma,
- the patient is known to have tropical splenomegally with regular follow up with the medical department.
- last menstrual period was 15 days ago (regular periods).

After resuscitation the patient was taken to the theatre (one hour after arrival) with her vital signs as follows: PR: 122 bpm, RR : 32 cycles/min , BP: 94/58 mmHg.

Formal laparotomy was done through a midline longitudinal incision. Massive haemoperitoneum was found (suction of about three litres of blood was carried out).

There was no evidence of ectopic pregnancy. The liver was normal.

Active bleeding was found to be coming from the site of the spleen. The spleen was enlarged but no obvious lacerations noted. Splenectomy was done and with clamping of the pedicle the BP became 129/95 mmHg. Then the BP started to drop again, the ligatures were reviewed and they were intact. The lesser sac was opened and there was a fresh clot with an underlying retroperitoneal haematoma close to the tail of the pancreas.

The retroperitoneum was opened and the bleeding site was found to be a dilated part of the splenic vein.

Resection of that dilated part was performed together with the adjacent pancreatic tail was carried out.

The BP improved and at recovery the BP was 152/88 mmHg, PR was 100/min and oxygen saturation was 100%.

Histopathology report was consistent with splenic vein aneurysm.

The patient underwent uneventful postoperative course and was discharged in a good condition.

First follow up after two weeks showed no complaints and the examination revealed no abnormality.

EDITORIAL

DISCUSSION

Spontaneous rupture of splenic vein (with or without aneurysm) is a rare disorder and most of the few cases reported are related to pregnancy.

The aetiology of splenic vein aneurysm (SVA) is obscure. It can be congenital or acquired due to trauma or portal hypertension. Its relation to pregnancy can be attributed to the associated hemodynamic changes.

Before 1961, only two cases of spontaneous rupture of the splenic vein have been reported in the American and British literature. Both of these were secondary to longstanding cirrhosis of the liver with portal hypertension, and in one case there was, in addition, a primary hepatoma with metastases {1}.

A third case was described in the Annals of surgery 1961 in a 33-year-old, seven-months pregnant woman in whom an exsanguinating hemorrhage from spontaneous perforation of the splenic vein occurred {1}.

Another case was described in 1984 in the British Journal of Surgery in a 36-year-old woman who had spontaneous rupture of splenic vein not related to pregnancy {2}.

Cases of spontaneous rupture of SVA were strongly related to pregnancy, 8 cases have been described during pregnancy. One case was reported in 2009 in the first postpartum day {3}.

In 2003, there was the first recorded case of intra-abdominal hemorrhage due to rupture of splenic vein aneurysm in a man without evidence of portal hypertension in a 72 years old male {4}.

Management of such a condition begins with aggressive resuscitation, and early surgery. The cases are still few to have a standardized definitive surgery. Surgical procedures done in the reported cases include splenectomy with resection of the aneurysm plus distal pancreatectomy plus splenorenal shunt. In our case, splenorenal shunt was not required.

SUMMARY

Total number of cases reported up to January 2009 is four cases of spontaneous rupture of splenic vein and ten cases of spontaneous rupture of SVA. Of the latter, nine were related to pregnancy and one case occurred in a 72 years old man.

Our case is the first case to be reported in a woman, not related to pregnancy or portal hypertension.

REFERENCES

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