CASE REPORT

Left Gastric Artery Aneurysm – A Case Report

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Introduction

Gastric artery aneurysm rupture is a rare but important condition with a high lethal potential. We present a patient who survived this condition and discuss the management.

Cast Report

A 78-year-old man was admitted with a 2 h history of sudden onset epigastric and periumbilical pain followed by collapse. He was taking Warfarin for atrial fibrillation.

On examination he was shocked, with a systolic blood pressure of 52 mmHg and a soft but generally tender abdomen. His haemoglobin was 9.7 mg/dl, white cell count was 16.1 x 10^9/l and INR was markedly deranged at 6.5. ECG, CKMB fraction and amylase were all normal.

After resuscitation with intravenous fluids an emergency laparotomy was performed. Two litres of fresh blood were found in the abdominal cavity with a tense haematoma in the lesser sac. This was opened to reveal a ruptured left gastric artery aneurysm.

Intraoperatively, the patient sustained an electromechanical dissociation arrest due to hypovolaemia, from which he was successfully resuscitated. During surgery he received 15 units of blood and 4 units of fresh frozen plasma. The aneurysm was ligated and resected.

The patient recovered fully and was sent for convalescence 2 weeks after the operation.

Histology confirmed the diagnosis of a left gastric artery aneurysm about 1.8 cm in diameter. It had a thick fibrocellular wall (Fig. 1) and contained thrombus undergoing organisation. Its cause was not completely clear, but an atherosclerotic origin seemed most likely.

Discussion

Aneurysms of the gastric arteries are rare, and account for less than 4% of splanchnic artery aneurysms. Men outnumber women three to one and most lesions affect patients in their sixth to seventh decades.

They appear to occur as a result of periarterial inflammation secondary to atherosclerotic destruction of the wall of the artery. Alternatively, it has been proposed that they may be acquired as a result of periarterial inflammation leading to medial degeneration. They can be classified into: (a) intramural (about 70%), which rupture into the lumen of the stomach and present as acute or chronic upper gastrointestinal bleeding; or (b) extravisceral (about 30%), which rupture into the peritoneal cavity.

Spontaneous intraperitoneal haemorrhage from a ruptured extravisceral gastric artery is an extremely rare occurrence. To date we have found 19 reported cases of extravisceral gastric artery aneurysm in the English language literature.

Patients present with sudden pain, nausea, vomiting and hypovolaemic shock. Rarely, they may describe epigastric discomfort before rupture.

Preoperative arteriography may play a role in less acute cases, and some authors recommend intra-operative angiography. In most patients, however, treatment of gastric artery aneurysm is directed simply at controlling life-threatening haemorrhage. This comprises vigorous resuscitation and ligation with or without excision of the aneurysm. Arterial embolisation has also been found to be successful in some cases.
It has been suggested that asymptomatic lesions found incidentally on ultrasound, computed tomography (CT) scan duplex or angiography should be electively ligated or embolised to avoid risk of subsequent rupture.\(^5\)

Our patient presented with classical symptoms. Vigorous resuscitation and urgent operative intervention considerably improved his chances of survival, as about 70% of patients reported to have these lesions succumb following rupture despite treatment.\(^3\) Ruptured splanchnic artery aneurysm should be considered and searched for in patients with a haemoperitoneum in whom no obvious cause can initially be found.

References


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