CASE REPORT

A Life-threatening Case of a Left Upper Quadrant Mass

I. M. Ahmed¹, J. Uddin¹ and D. J. A. Scott²

¹Department of Surgery, ²Department of Vascular Surgery, St James’ University Hospital, Leeds LS9 7TF, U.K.

Introduction

Fibromuscular dysplasia of arteries is known to have an association with aneurysmal complication. We present a rare case of splenic artery rupture with pseudoaneurysm formation, presenting as a left upper quadrant mass.

Case Report

A 67-year-old lady was admitted to hospital with a 3-day history of left upper quadrant pain, nausea and constipation. Her appetite and weight were normal and there were no other gastrointestinal symptoms. There was no history of trauma. She had a past medical history of hypertension, hypercholesterolaemia and primary hyperparathyroidism. She was an ex-smoker.

On clinical examination there was a tender left upper quadrant mass which extended 8 cm below the left costal margin. It was dull to percussion and descended on inspiration.

The only abnormal results from blood tests were a haemoglobin of 9.6 g/dl (MCV was 89 fl) and a C-reactive protein of 75.

The mass was heterogeneous on ultrasound (14 × 13 cm) and was shown to be inferior to the spleen. Investigations proceeded to computed tomography which showed a mass which surrounded the splenic artery and vein, and appeared to be closely related to the tail of the pancreas and spleen (Fig. 1). Biopsy under ultrasound guidance revealed old blood. A selective coeliac angiogram was performed which showed an irregular beaded appearance of the splenic artery (consistent with fibromuscular dysplasia). The splenic artery was attenuated at the hilum with the impression of an adjacent haematoma (Fig. 2). There was no evidence of any active bleeding and the only other abnormality was fibromuscular dysplasia of the right renal artery.

The patient was taken to theatre for exploration of the mass. At operation a large pulsatile mass was found showing features of a pseudoaneurysm, arising from the splenic artery. This was excised together with the spleen and distal pancreas. There were no signs of portal hypertension. Postoperatively she made an uneventful recovery. Histological examination of the resected pancreas and spleen showed the aneurysmal

* Please address all correspondence to: D. J. A. Scott, Consultant Vascular Surgeon.

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Fig. 1. CT showing the mass due to the splenic artery pseudoaneurysm around the splenic artery.
formation of arteriovenous fistulae. The commonest type of fibrodysplasia is medial fibromuscular dysplasia.

Splenic artery aneurysms are usually asymptomatic until they rupture, presenting with left upper quadrant pain and shock. The mortality from rupture of a splenic artery aneurysm of pseudoaneurysm is between 25% and 50%.

Clinically, the differential diagnosis of our patient included peptic ulcer, gastric cancer, pancreatitis with pseudocyst and renal colic. On computed tomography the differential of the mass included lymphoma, sarcoma, mesenchymal tumour or even islet cell tumour of the pancreas.

The initial diagnostic work-up reflects our initial low index of suspicion of a vascular cause for this left upper quadrant mass. We believe this is the first reported case of splenic artery rupture presenting as a pseudoaneurysm, in association with fibromuscular dysplasia.

**Fig. 2.** Coeliac angiogram showing the beaded appearance of fibromuscular dysplasia of the splenic artery which becomes attenuated at the hilum of the spleen.

However, there were no signs of acute inflammation or pancreatitis.

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**Discussion**

Arterial fibromuscular dysplasia encompasses a group of non-atherosclerotic, non-inflammatory vascular occlusive and aneurysmal diseases. It can affect the intima, media and adventitia. Complications of this disease include aneurysm formation, dissection and

**References**


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