SHORT REPORT

Successful Treatment of a Giant Splenic Artery Aneurysm Solely by Proximal Coil Embolisation

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Introduction

Splenic artery aneurysms (SAA) are the most common intra-abdominal aneurysms after aorto-iliac aneurysms. Most are less than 3 cm in diameter but giant lesions have been reported.1–4 De Santis et al. have reported a case of giant SAA treated by transcatheter coil embolisation proximal and distal to the lesion.3 We present a similar case of giant SAA treated successfully by transcatheter embolisation with only proximal coil embolisation.

Case Report

A 76-year-old female was found on a routine physical examination at a nursing home to have a large pulsatile left upper quadrant mass. An enhanced CT scan of the abdomen (Fig. 1) demonstrated a 9 cm SAA and a second, smaller 3 cm distal SAA. Celiac axis and splenic arteriograms demonstrated the large aneurysm of the mid splenic artery (Fig. 2). There is filling of the distal splenic artery and the spleen. The more distal SAA is also identified but does not fill with contrast. The aneurysm was catheterised and numerous unsuccessful attempts were made to cannulate the distal splenic artery through the lumen of the aneurysm. Percutaneous transabdominal direct catheterisation of the aneurysm to either cannulate the distal splenic artery, deposit coils or inject thrombin were not considered at this time. The catheter was pulled back to the mid-splenic artery just proximal to the giant aneurysm. A 5 mm coil flowed directly into the large aneurysm. Two 8 mm coils were then placed in the splenic artery. Four additional 5 mm coils were then placed into the 8 mm coils to effect occlusion of the mid splenic artery. A repeat injection (Fig. 3) showed occlusion of the mid splenic artery, non filling of the aneurysm, reconstitution of the distal splenic artery and normal filling of the spleen. A doppler

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Discussion

Transcatheter embolisation is an accepted treatment for SAA with a high success rate. The recommended technique is to place coil emboli both proximal and distal to the aneurysm. Alternative treatment includes placement of large coils within the aneurysm or percutaneous thrombin injections. In this case, the distal splenic artery could not be cannulated and the aneurysm was considered to be too large to be packed with multiple coils. The fact that the smaller, distal SAA was noted to be thrombosed on both CT and splenic arteriogram probably contributed to the lack of retrograde filling of the aneurysm after proximal embolisation. Percutaneous trans-abdominal thrombin injection may have been an option to complete thrombosis of the aneurysm if there had been persistent filling post-embolisation.

This case illustrates the use of proximal transcatheter embolisation as a treatment for giant splenic artery aneurysms. The size of these aneurysms often precludes coil occlusion of the aneurysm and makes cannulation of the distal splenic artery to prevent retrograde filling difficult or impossible. In this case we demonstrate that proximal splenic artery embolisation can be an effective treatment for giant SAAs.

References