Embolization of a large mesenteric arteriovenous fistula

REPORT

A 43-year-old man who underwent small bowel resection 26 years ago presented with recurrent abdominal pain. The diagnosis of a large arteriovenous fistula (asterix) between the superior mesenteric artery (SMA, white arrow) and vein was made by computed tomography (CT) (Figure 1). The patient refused surgery and endovascular treatment was performed. The initial superior mesenteric angiogram confirmed the CT findings with no portal vein thrombosis or features of portal hypertension (Figure 2). The SMA was cannulated and a 14mm Amplatzer Vascular Plug (AVP; AGA Medical, Golden Valley, USA) was successfully deployed within the fistula, as demonstrated on the completion angiography, with preservation of all other branches of the SMA (Figure 3). CT scans performed the following day and at 6 weeks post procedure showed an optimal position of the plug and no contrast opacification of the portal venous system. The patient remained asymptomatic at follow up.

Figures

Figure 1: Contrast enhanced CT images in the portovenous phase.

A large fistula (asterix) between the superior mesenteric artery and vein was detected.

Figure 2: Superior mesenteric artery angiography.

A large fistula between the SMA and an aneurysmally dilated superior mesenteric vein.

Figure 3: Post embolization SMA angiography.

Optimally positioned AVP within the fistula; no venous opacification was seen and vital SMA branches were preserved.

Figure 4: Post embolization contrast enhanced coronal CT image.

Optimal position of the AVP was noted with successful embolisation of the fistula at 6 weeks post-procedure.