Huge aneurysm of the common hepatic artery

Anévrisme géant de l’artère hépatique commune

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Received 3 July 2011; accepted 23 July 2011
Available online 11 February 2012

KEYWORDS
Aneurysm; Common hepatic artery; Aneurysmectomy

A 65-year-old Asian man presented with a pulsatile mass in the right upper abdomen. There was no history of chronic disease. Physical examination revealed a pulsatile mass with tenderness at the right upper quadrant of the abdomen. Laboratory investigation revealed a total bilirubin concentration of 1.5 mg/dL. Ultrasonography and Doppler scan showed a cystic mass about 6 × 6 cm² in size with a to-and-fro colour flow. Computed tomography of the abdomen revealed an aneurysm of the common hepatic artery, 6.3 × 6 × 6 cm³ in size, with mural thrombus (Figs. 1 and 2). The proximal common hepatic artery exhibited severe stenosis.

Endovascular treatment was attempted, but failed due to difficulty in engaging the proximal common hepatic artery. Aneurysmectomy with interposition of a great saphenous vein graft was performed. The pathological report showed features of a degenerative aneurysm. At 2-year follow-up, computed tomography imaging showed patency of the graft (Fig. 3).

Hepatic artery aneurysms are very rare with an incidence of 0.4%; most are asymptomatic. Large aneurysms can present a pulsatile mass. Obstructive jaundice is reported.
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Figure 1. Contrast-enhanced computed tomography of the abdomen demonstrating aneurysmal dilatation of common hepatic artery about $6.3 \times 6 \times 6$ cm$^3$ with huge mural thrombus (arrow).

Figure 2. Computed tomography angiography with three-dimensional reconstruction showing an aneurysm of common hepatic artery with severe stenosis of proximal site (arrow), just beyond the bifurcation of the celiac trunk and the common hepatic artery.

Figure 3. Contrast-enhanced computed tomography of the abdomen with coronal reformatted image showing patent hepatic artery and vein graft (arrow).

in cases with compression of the bile duct. Ruptured hepatic artery aneurysms have a mortality rate of 35%. Surgical intervention is suggested a size greater than 5 cm. Risk factors for rupture include multiple hepatic artery aneurysms and nonatherosclerotic origin. Although endovascular surgery is becoming increasingly popular, open surgery is indicated for patients for whom endovascular treatment is not suitable. In this case, excision with vein graft bypass led to complete regression of the aneurysm.

Disclosure of interest

The authors declare that they have no conflicts of interest concerning this article.