Letters to the Editor

Endovascular treatment of iatrogenic hemobilia

Key words: Key words: Arterio-biliary fistula. Hemobilia. Endovascular. Embolization.

Dear Editor,

We report the case of a 62-year-old Caucasian male, with surgical duodenocephalic pancreatectomy in April 2008 due to an intraductal mucinous-papillary neoplasm of the pancreatic head, who, in October 2008, was admitted because of a cholangitis secondary to a stenosis of biliary anastomosis treated by percutaneous transhepatic dilatation and biliary drainage. Two weeks later, the patient arrived at the emergency room in hypovolemic shock status secondary to severe hematemesis. An oral endoscopy failed to demonstrate the source of bleeding, so a liver angio-computer tomography (angioCT) was obtained. The liver angio-CT showed an extravasation of contrast in the right hepatic lobe (Fig. 1). An angiography revealed a pseudoaneurysm in a small arterial branch of the hepatic artery with an artery-biliary fistula (Figs. 2 and 3). We performed a successful embolization with coils (Fig. 4). Currently, the patient has had no complications related to transarterial embolization during follow-up.

Discussion

Percutaneous procedures on the biliary tree are now considered essential to the management of biliary diseases. Hemobilia as a

Fig. 1. Contrast-enhanced CT showing contrast extravasation in the arterial phase.

manifestation of venous or arterial vascular injury is among the complications associated with these procedures. Its incidence, although low, is rising due to increased percutaneous procedures on the liver and the bile duct with rates of 19-32% of injury vessel after transhepatic percutaneous drainage.

Arterio-biliary fistula secondary to hepatic artery pseudoaneurysm has been described as a very uncommon cause of hemobilia. The first case was reported in 1981. The diagnosis is difficult and should be suspected in a patient with upper gastrointestinal bleeding, hematemesis, or shock hypovolemic when a trauma or a procedure on the biliary tree was performed. Hemobilia is usually mild and self-limited.

Angiography is the gold standard today. The capacity to locate the source of bleeding (> 90% in some series) and the potential therapeutic possibilities with success rates of 80-100% and a mor-

Fig. 2. Angiography of visceral arterial vessel: Image suspicious of pseudoaneurysm of right hepatic artery.

bility comparable to open surgery have relegated the latter to cases of massive hemobilia that is not controlled by transarterial embolization (TAE), cholecystitis, and sepsis.

Fig. 3. Selective angiography of right hepatic artery.

Fig. 4. Results of embolization with complete occlusion of the pseudoaneurysm.

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