Treatment of tumor associated hemobilia with a partially covered metallic stent

Figure 1 CT scan demonstrates multiple metastatic lesions in the right lobe of the liver with lipiodol stain in the old lesion.

Figure 2 Cholangiogram demonstrates clot and tumor in the bile duct.

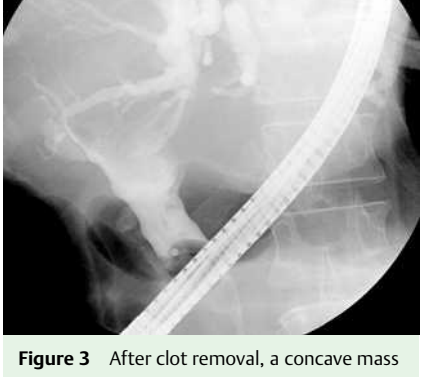

Figure 3 After clot removal, a concave mass was seen at the hepatic hilum.

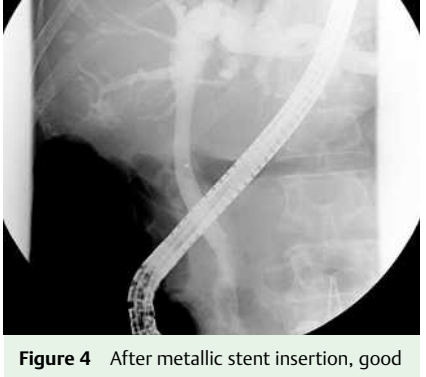

Figure 4 After metallic stent insertion, good drainage of contrast was seen and the filling defect was no longer detected.

A 66-year-old Thai man presented with fever, jaundice and melena. He had an underlying condition of rectal adenocarcinoma treated by low anterior resection and had recently developed liver metastasis. A CT scan of the abdomen showed new advanced lesions occupying the right posterior segment of the liver (**Figure 1**). The endoscopic finding during endoscopic retrograde cholangiopancreatography (ERCP) revealed active oozing of blood from the biliary orifice. The cholangiogram demonstrated an amorphous filling defect occupying the extrahepatic biliary tree with a concave mass sitting at the hepatic hilum (**Figure 2** and **3**). Balloon sweeping was performed many times but it seemed that the blood oozing from the papilla never stopped. Ultimately, we decided to put in a partially self-expandable metallic stent (SEMS). The stent was inserted with the proximal non-covered end placed in the left intrahepatic duct system. The technique for deployment was similar to the standard technique, but fluoroscopic monitoring was continued at all times to confirm the precise location of the SEMS placement. The oozing stopped immediately, with pure dark bile gushing out from the biliary orifice. The final cholangiogram confirmed a clear extrahepatic duct (**Figure 4**). Within a week, the obstructive jaundice resolved and the patient's hemoglobin level was stable. No further bleeding occurred before the patient's death 10 months later.

In patients with hilar obstruction, insertion of a non-covered SEMS is a standard treatment [1–3]. Insertion of a covered SEMS is not recommended because of the possibility that the stent membrane may occlude subsegmental drainage of the intrahepatic ducts, leading to post-ERCP cholangitis. To place a covered SEMS for hilar stricture safely, therefore, an optimal length of segment needs to be uncovered in order to prevent subsegmental cholangitis. The commercially available covered Wallstent (Boston Scientific, Natick, Massachusetts, USA) has 0.5 cm of stent left uncovered at both ends. To gain more uncovered area, we used an 18-G needle to destroy the membrane between the mesh at the proximal end of the covered Wallstent. In this way, we successfully modified it into a partially covered SEMS.

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Bibliography

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