

Combined endoscopic sphincterotomy and trans-catheter arterial embolization for the treatment and prevention of acute pancreatitis induced by hemobilia from hepatocellular carcinoma

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To the Editor,

Here, we report a case of hepatocellular carcinoma (HCC) with bile duct invasion and acute pancreatitis. The patient was successfully treated by endoscopic sphincterotomy (ES) and bile duct lavage for hemobilia. Trans-catheter arterial embolization (TAE) was performed to stop tumor bleeding and recurrent pancreatitis did not occur anymore during the following 7 years.

A 69-year-old woman with chronic hepatitis C had a 5-cm tumor on the lateral segment of the liver observed 4 years prior to the index admission. Biopsy confirmed the diagnosis of HCC. The patient underwent lateral segmentectomy uneventfully. A 2.5-cm hypervascular tumor was detected on the medial segment of her liver 2 years later. Recurrent HCC was confirmed by biopsy. She refused a second surgical therapy, and chose to undergo trans-catheter arterial chemoembolization (TACE) with lipiodol-adriamycin emulsion. In the following 2 years, TACE was repeated for 7 additional sessions due to tumor recurrence. Nevertheless, she maintained a good performance status. Three months after her last TACE therapy, the patient experienced a sudden onset of severe epigastric pain that lasted for several hours. The pain was unremitting, and was not relieved by postural changes. It radiated to her back and was accompanied by nausea, vomiting, and diaphoresis. Tarry stool passage or bloody vomitus was not observed. The patient did not consume alcohol in any form and did not have a recent history of abdominal trauma. On physical examination, vital signs were normal. She was jaundiced and palpation elicited epigastric tenderness. Serum levels of biochemical test revealed the following: total bilirubin, 5.9 mg/dL (normal level, 0-1.3 mg/dL); alkaline phosphatase, 97 U/L (normal level, 28-94 U/L); alanine aminotransferase (ALT), 160 U/L (normal level, 0-36 U/L); and aspartate aminotransferase (AST), 218 U/L (normal level, 0-34 U/L). Her amylase level was 3,433 U/L (normal level, 27-137 U/L) and lipase level was 37,697 U/L (normal level, 0-55 U/L). Abdominal CT revealed tumor invasion into the right intrahepatic duct and unenhanced dense material in the dilated common bile duct. The pancreas was mildly swollen. Tumor bleeding with hemobilia was suspected. Endoscopic retrograde cholangiopancrea-

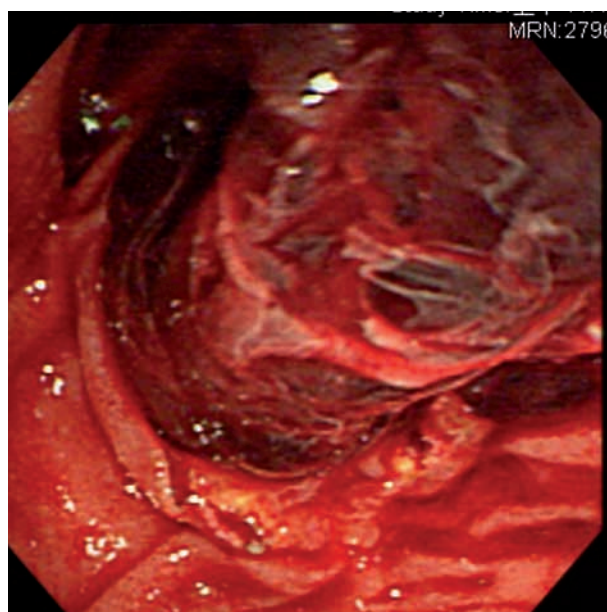


Fig. 1

ticography (ERCP) was performed the next day, which revealed a bulging papilla with fresh blood oozing out of its orifice. The cholangiogram revealed that the common hepatic and bile ducts were both filled with amorphous material. Subsequently, ES was performed and a large number of blood clots were removed using a Dormia basket and balloon catheters (Fig. 1). A naso-biliary drainage catheter was inserted for bile duct lavage (Fig. 2). Hepatic angiography revealed a partially embolized tumor on the right lobe of the liver, and the bleeding tumor vessels were successfully embolized using gelfoam cubes. Her condition was stable on the following day, and she could tolerate oral feeding within

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Fig. 2

48 hours. Cholangiography performed 6 days later revealed no filling defect in the dilated common bile duct, although there was a tumor thrombus observed in the common hepatic duct. At the time of discharge, the patient's condition was stable, and recurrent pancreatitis did not occur during the following 7 years.

Acute pancreatitis is a rare presentation of hemobilia. HCC is the most common malignancy associated with hemobilia. HCC is a hypervascular tumor and can invade the bile duct. Intraductal tumors can bleed or slough off

into the bile duct. Impaction at the ampulla by either a blood clot or tumor thrombus can then lead to acute pancreatitis (1-5). Several studies have reported that TAE is the recommended treatment for hemobilia. However, its efficacy is equivocal and recurrent bleeding has been common in the presence of HCC (6-7). Repeated embolization or surgical resection is sometimes necessary. If rebleeding occurs, ES can prevent recurrent pancreatitis by blood clot impaction at the ampulla as observed in our case.

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