Portal Venous Dilatation and Stenting for Bleeding Jejunal Varices: Report of Two Cases

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Abstract We present two patients who underwent a portal stent placement for bleeding jejunal varices of the afferent loop caused by extrahepatic portal venous stenosis. Case 1 involved a 66-year-old woman who developed bleeding jejunal varices due to extrahepatic portal venous stenosis 1 year after a pancreaticoduodenectomy with intraoperative radiation therapy. Percutaneous transhepatic balloon dilatation and stent placement were performed. Since undergoing the procedure, no bleeding has occurred. Case 2 concerned a 44-year-old woman who had a rupture and bleeding of jejunal varices 16 years after a choledocojejunostomy. Stenosis was observed from the right and left branches of the portal vein to its intrahepatic branches. Both balloon dilatation and stent placement were attempted. However, the stent could not be fully inserted into the intrahepatic portal vein. Portal stent placement is less invasive and radical, and therefore should be attempted for the treatment of extrahepatic portal venous stenosis. However, there are limits to its application if the stenosis extends to the intrahepatic branches of the portal vein.

Key words Portal vein stenosis · Jejunal varices · Stent implantation · Percutaneous transhepatic angioplasty

Introduction

Most of the varices caused by portal hypertension tend to form in the stomach and the esophagus, and jejunal varices rarely develop, rupture, or bleed. However, in patients with portal hypertension who have undergone previous abdominal surgery, ectopic varices may form through the adhesion of tissue and bleeding may also occur at unpredictable sites.1-7 We performed a dilatation of a stenosed portal vein and following stent placement in two patients for bleeding jejunal varices caused by extrahepatic portal venous stenosis which developed subsequent to a previous choledocojejunostomy, and herein report the results.

Case Reports

Case 1

A 66-year-old woman visited our hospital complaining of melena. She had been diagnosed as having pancreatic cancer 1 year before, and had thus undergone a pancreaticoduodenectomy with intraoperative radiation therapy. Percutaneous transhepatic balloon dilatation and stent placement were performed. Since undergoing the procedure, no bleeding has occurred. Case 2 concerned a 44-year-old woman who had a rupture and bleeding of jejunal varices 16 years after a choledocojejunostomy. Stenosis was observed from the right and left branches of the portal vein to its intrahepatic branches. Both balloon dilatation and stent placement were attempted. However, the stent could not be fully inserted into the intrahepatic portal vein. Portal stent placement is less invasive and radical, and therefore should be attempted for the treatment of extrahepatic portal venous stenosis. However, there are limits to its application if the stenosis extends to the intrahepatic branches of the portal vein.

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Case 2

A 44-year-old woman complaining of melena and dizziness was referred to our hospital. She had undergone a cholecystectomy for cholelithiasis and a choledocojejunostomy 17 years earlier. A laboratory examination on admission showed severe anemia with a hemoglobin level of 2.0 g/dl and hematocrit of 7.7%. Upper gastrointestinal endoscopy and colonoscopy detected no particular bleeding point. The portal phase of superior mesenteric arteriography revealed severe stenosis of the portal vein, and the intrahepatic branches of the portal vein in the right lobe were hardly visible, whereas those in the left lobe were barely visible. Moreover, a markedly dilated hepatopetal jejunal vein was observed (Fig. 3). From these findings, her condition was diagnosed to be due to repeated rupturing and bleeding of jejunal varices of the afferent loop, which had developed due to extrahepatic portal venous obstruction. End-to-side anastomosis of the dilated jejunal vein and the inferior vena cava was performed. Two years later, melena recurred, and superior mesenteric arteriography revealed an obstruction of the shunt. Hence, the narrow area of the portal vein flowing into the left lobe of the liver was dilated with a balloon intraoperatively (Fig. 4). Following this, an insertion of a stent into the dilated area was attempted to secure long-term dilatation; however, it could not be inserted into the intrahepatic branch of the portal vein satisfactorily. It was also impossible to insert the catheter into the right branch of the portal vein and thus no dilatation could be achieved. Presently, 65 months after stent placement, the patient no longer requires hemostasis, although she still occasionally demonstrates melena. She is able to lead a normal life under the continuous administration of propranolol.

Discussion

Whereas the varices caused by portal hypertension mainly develop in the stomach and the esophagus, ectopic varices tend to develop at sites of tissue adhesion...