A 74-year-old man was admitted to our hospital with tarry stool as his chief complaint. He had been suffering from liver cirrhosis (type C) and had a clinical history of receiving treatment for hepatocellular carcinoma. Emergency upper endoscopic examination revealed gastric fundal varices with an erosion, in which a red spot was observed (Fig. 1) [1]. There were no other lesions which would result in tarry stool, including the esophageal varices. We therefore concluded that this red spot had caused gastric variceal hemorrhage. We performed a combined balloon-occluded retrograde transvenous obliteration (BRTO) procedure and percutaneous transhepatic obliteration (PTO) [2]. Percutaneous transhepatic portographic images showed that the afferent vein of the gastric varices consisted mainly of the posterior gastric vein (Fig. 2 a) and short gastric vein (Fig. 2 b), and that the efferent vein was the gastrorenal shunt [3]. Some microcoils were placed in the short gastric vein [4]. An occlusive balloon catheter was inserted through the gastrorenal shunt. The sclerosing agent used for BRTO was slowly infused through the posterior gastric vein in an antegrade manner [2]. In addition, some microcoils were also placed in the posterior gastric vein. Follow-up endoscopic examination after 10 days showed that the microcoil was exposed in the gastric erosion, and contrast-enhanced abdominal computed tomographic images revealed no enhancement of the gastric varices. We therefore concluded that the gastric varices were completely thrombosed (Fig. 3). Follow-up endoscopic examination after 2 months showed disappearance of the gastric varices (Fig. 4).

Although endoscopic treatment options for gastric variceal hemorrhage, such as the injection of cyanoacrylate-based tissue adhesives, alcohol, sclerosants, and the use of band ligation, have been studied, the efficacy or superiority of one therapy over another remains controversial [5]. However, combined BRTO and PTO therapy can obstruct both the feeding and the draining veins of gastric varices, and we suggest that this method can be more effective than the alternatives [2]. In addition, exposure of the microcoil in gastric varices is rare, but is one of the signs of thrombus formation in gastric varices.

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Department of Gastroenterology and Hepatology, Okayama University Graduate School of Medicine, Dentistry, and Pharmaceutical Sciences, Okayama, Japan

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