

Predictive Factors for Worsening of Esophageal Varices after Balloon-occluded Retrograde Transvenous Obliteration (B-RTO): Clinical Characteristics in Fifty-five Patients with Porto-systemic Shunts who were Treated with B-RTO Between January 2000 and December 2009

Keiji YOKOYAMA¹, Masanori YOKOYAMA¹, Hideyuki HIGASHIHARA²,
Akira ANAN¹, Makoto IRIE¹, Shizuka KUNOU¹, Atsushi FUKUNAGA¹,
Kaoru YOTSUMOTO¹, Kunitoshi SAKURAI¹, Hideyuki IWASHITA¹,
Genryu HIRANO¹, Shu-ichi UEDA¹, Daisuke MORIHARA¹,
Shinya NISHIZAWA¹, Masaharu SAKAMOTO¹, Yasuaki TAKEYAMA¹,
Kaoru IWATA¹, Satoshi SHAKADO¹, Tetsuro SOHDA¹,
Shinichi KORA², Hiroshi URAKAWA², Kengo YOSHIMITSU²
and Shotaro SAKISAKA¹

¹ *Department of Gastroenterology, Faculty of Medicine, Fukuoka University*

² *Department of Radiology, Faculty of Medicine, Fukuoka University*

Abstract : Balloon-occluded Retrograde Transvenous Obliteration (B-RTO) is currently the standard treatment for gastric varices in the Department of Gastroenterology, Faculty of Medicine, Fukuoka University, and is performed in cooperation with the Department of Radiology. In this study, we analyzed 55 clinical cases for which B-RTO was performed between January 2000 and December 2009. The therapeutic purpose of B-RTO was roughly classified as the control of gastric variceal bleeding, or ectopic variceal bleeding, and the control of hepatic encephalopathy. In most of the cases where B-RTO was performed, portal hypertension due to liver cirrhosis was present. In terms of the Child-Pugh classification, class A and B were the most prevalent, however we decided to treat some class C emergency cases and elective cases which had variceal bleeding. The inflow tract of the gastric varices was mostly from the left gastric vein. The variceal form was mostly F2 - F3. The variceal form in patients who were treated for hepatic encephalopathy by BRTO tended to small. In all cases, complete thrombosis of the shunt vessel was seen, and the Child-Pugh scores showed a tendency toward improvement. However, we have experienced a relatively high incidence of worsening of esophageal varices after BRTO. We clearly demonstrated that patients with the left gastric vein as the main inflow tract for gastric varices had a higher rate of worsening of esophageal varices. In the future, longer-term serial observations will be necessary to further examine the utility and safety of B-RTO.

Key words : B-RTO, Portal hypertension, Gastric varices, Hepatic encephalopathy, Worsening of esophageal varices