

POINT BY POINT RESPONSE TO REVIEWERS' COMMENTS

We would like to appreciate the reviewers for their insightful comments, which have helped us significantly improve the quality of our manuscript.

Reviewer 1

The case report is interesting and address a debated topic. I suggest an improvement in: Laboratory examination section: more data about liver function and on the exclusion at least of majour causes of liver disease Imaging examination section: more data about liver morphology. These informations are needed to strenght the exclusion of any advanced liver disease.

Authors' response: We apologize for the lack of data on laboratory and imaging examinations. Accordingly, we have added additional results of the examination on page 6, line 140 to page 7, line 158, and the additional laboratory test results were as follows: white blood cell count, $41 \times 10^2/\mu\text{L}$; Red blood cell count, $442 \times 10^4/\mu\text{L}$; hemoglobin, 14.0 g/dL; hematocrit, 41.9%; platelet count, $18.5 \times 10^4/\mu\text{L}$; C-reactive protein, 0.09 mg/dL; aspartate aminotransferase, 45 U/L; alanine aminotransferase, 43 U/L; total bilirubin, 0.8 mg/dL; direct bilirubin, 0.3 mg/dL; total protein, 6.5 g/dL; albumin 3.5 g/dL; glutamyl transferase, 36 U/L; prothrombin time, 13.1 sec (the prothrombin time was 86.3% of normal); international normalized ratio, 1.14; creatinine, 0.65 mg/dL; and blood urea nitrogen, 16.7 mg/dL. The patient tested negative for serum HBs Ag, anti-HBc, and anti-HCV antibodies in a viral screening. The morphology and CT attenuation value of the liver were normal, and no cystic formation was observed in the liver. These findings support the exclusion of advanced liver diseases.

REVIEWER 2

Saito H. et al. presented a case report which discusses the efficacy of percutaneous balloon-occluded retrograde transvenous obliteration for treating patients with intrahepatic portosystemic shunts. Balloon occluded retrograde transvenous obliteration is a known method for treatment of gastric varices. There are also some studies (case series) about using balloon occluded retrograde transvenous obliteration for the treatment of hepatic encephalopathy (HE) secondary to portosystemic shunt (PSS) in cirrhotic patients. The method is not unique. Case series may be more interesting rather than a case report. Some issues raised;

1- Introduction part: The authors may give some information about the usage of balloon occluded retrograde transvenous obliteration for portosystemic shunt in cirrhotics. If your

method is different from others, please give more information and tell your differences.

Authors' response: Accordingly, we have added relevant information regarding differences in the use of balloon occluded retrograde transvenous obliteration for a portosystemic shunt in cirrhosis to the Introduction section on page 5, lines 102–110 as follows:

B-RTO is a well-known method for treating gastric varices or hepatic encephalopathy in patients with hepatic fibrosis and cirrhosis. A liquid embolus agent, 5% ethanolamine oleate (Oldamin; Takeda Pharmaceutical, Osaka, Japan)-iopamidol (Iopamidol; Schering, Osaka, Japan) (5% EOI), is usually administered through injection to treat gastric varices. However, in cases of IPSVSSs, it is difficult to prevent migration of the 5% EOI because the shunt length is short, and blood flow through the shunt is rapid, even when the flow is controlled with a balloon catheter.

- 2- *Case: This section may contain more information about the liver function tests of the patient (AST,ALT,ALP,GGT,T.Bilirubin,d.bilirubin, INR,protein electrophoresis, viral hepatitis markers, fibroscan vs..)may contain more information about physical examination findings.*

Authors' response: We apologize for the lack of data on the liver function tests and physical examination. Accordingly, we have added this information to the Case presentation section on page 6, lines 136–150 as follows:

Physical examination upon admission

The patient demonstrated flapping tremors. However, there was no hepatomegaly, splenomegaly, abdominal tenderness, edema, or ascites present.

Laboratory examinations

Laboratory tests revealed an abnormally high ammonia level (214 µg/dL; normal range, 27–73 µg/dL). Other laboratory test results were as follows: White blood cell count, $41 \times 10^2/\mu\text{L}$; Red blood cell count, $442 \times 10^4/\mu\text{L}$; hemoglobin, 14.0 g/dL; hematocrit, 41.9%; platelet count, $18.5 \times 10^4/\mu\text{L}$; C-reactive protein, 0.09 mg/dL; aspartate aminotransferase, 45 U/L; alanine aminotransferase, 43 U/L; total bilirubin, 0.8 mg/dL; direct bilirubin, 0.3 mg/dL; total protein, 6.5 g/dL; albumin 3.5 g/dL; glutamyl transferase, 36 U/L; prothrombin time, 13.1 sec (the prothrombin time was 86.3% of normal); international normalized ratio, 1.14; creatinine, 0.65 mg/dL; and blood urea nitrogen, 16.7 mg/dL. The patient tested negative for serum HBs Ag, anti-HBc, and anti-HCV antibodies in a viral screening.

- 3- *Discussion: There are some information about portosystemic shunt treatment in cirrhotics but, the authors would give more information about the studies about using balloon occluded retrograde transvenous obliteration for the treatment of hepatic encephalopathy (HE) secondary to portosystemic shunt (PSS) in cirrhotic patients. Is your treatment*

different from the treatment modalities which were used in these studies?

Authors' response: The difference in the use of balloon occluded retrograde transvenous obliteration for cirrhosis lies in the choice of embolic material, as currently mentioned in the Introduction section of the revised manuscript on page 5, lines 102–110.