

Answers to reviewers

Reviewer 1: The authors described a patient with portosystemic encephalopathy, successfully treated with interventional radiology procedure. The paper is well-written and has interesting findings.

We thank the reviewer for his/her appreciation of our study.

Reviewer 2: Interesting. The authors provided a rare case without liver cirrhosis who developed encephalopathy due to a giant inferior mesenteric-caval shunt via the left internal iliac vein and received an Amplatzer Vascular Plug and lots of coils. This type of portosystemic shunt is rare, and the interventional radiological procedure is also rare. Several minor issues should be considered. First, Figure 1 was of low-quality and obscure. Second, some relevant cases regarding portosystemic shunt and HE regardless of liver cirrhosis should be systematically reviewed. He et al. reported a case of large paraesophageal varices causing recurrent hepatic encephalopathy and a case of inferior mesenteric vein-left gonadal vein shunt aggravating hepatic encephalopathy. These cases are similar to yours. Third, more details regarding interventional radiological procedures should be provided. Fourth, some words are wrongly spelt or used, such as drainage, significative, etc. Fifth, the true abstract is missing.

We appreciated these criticisms and we would like to thank the Reviewer for his/her constructive suggestions.

As far as the first point is concerned, we added a high resolution image in the revised Figure 1.

Regarding the second point, we have discussed and quoted the 2 case reports by He et al.

Thirdly, in the case report part of the manuscript more specific details were given on the interventional procedure.

According to the fourth point, the English of the manuscript was carefully revised.

Finally, the true abstract was added to the revised manuscript. We apologize for the error that had occurred during the upload procedure of the original manuscript.

Reviewer 3: Authors should a little bit change their statement that the patient did not suffer from chronic liver disease, due to the presence of hypertransaminasemia, even though light and the Fibroscan examination that revealed liver elastance of 10 KPA compatible with a probability of significative liver cirrhosis, even thought not particularly high. The role of shunting in determining hyperammonemia is clearly emphasised in a well-known research dealing with cirrhotics (but the mechanisms are equivalent, also in non-cirrhotics) that isBMC Gastroenterol. 2009 Mar 17;9:21. Blood ammonia levels in liver cirrhosis: a clue for the presence of portosystemic collateral veins.

We would like to thank the Reviewer for his/her pertinent and appropriate comment. Following the criticism raised by the Reviewer, the discussion section was carefully revised. The study by Tarantino G et al. was cited in the manuscript and the importance of hyperammonaemia as a clue for the presence of portosystemic shunts was considered. We also modified the statement about the “minor liver impairment” in light of the Fibroscan data and the presence of hypertransaminasemia as correctly suggested by the Reviewer. The English of the manuscript was carefully revised.

Reviewer 4: Authors reported the case of a non-cirrhotic patient who presented with acute hyperammonemic encephalopathy due to a huge inferior mesenteric-caval shunt via the left internal iliac vein, which was successfully cured by interventional radiology procedure. The patient got clinical remission after interventional radiology procedures achieving shunt exclusion. It is crucial that physicians should recognize different pathogenesis of hyperammonemic encephalopathy.

We thank the reviewer for his/her appreciation of our study.