

Response to reviewers' comments:

Reviewer: 1

Thank you for your favourable comments.

As you suggested, we added more details on the pre- and post-transplant course on p. 5-8 and have highlighted this text. Commercially available nutrients were used as formula of enteral feeding (p. 5 l.9). More details on the surgical procedures were added on p. 7 l.6-l.11, and additional discussion was added on p. 10 l.23-p. 11 l.4.

We discussed the appropriate time to transplant this case, and we came to the conclusion that the lowest acceptable recipient body weight was 2500 g according to the estimated graft volume and GRWR > 4.0%. Once the recipient's body weight reached 2500 g, we decided that the patient was not able to wait for transplantation because the liver biopsy revealed the marked loss of hepatocytes and multinucleated remaining hepatocytes. Among such cases, the lowest transplantable body weight is calculated according to the estimated monosegment graft volume and GRWR > 4.0%, and a weight above 2500 g is standard. There are few reports discussing transplantable body weight. Moreover, peritransplant management of such cases is very challenging. So, we view this case to be informative and decided to report on it.

Reviewer: 2

Thank you for your favourable comments.

"Two cases" was my mistake, and it has been revised to "a case" on p. 5 l.15. We explained the high recurrence rate of GALD in siblings to the patient's parents, but the parents gave birth to a baby in another hospital without informing us (p. 6 l.4-6).

The patient did not undergo MRI, salivary glands biopsy or C5b-9 immunostaining, so I changed "diagnosed" to "highly suspected" (p. 6 l2). Respiratory failure after transplantation due to large-for-size graft syndrome was prolonged, but the patient was extubated on POD 81 (p. 7 l.23-24). Cytomegalovirus infection and catheter infection occurred several times and were treated using antiviral or antibiotic drugs (p. 8 l.1-2).

Acute rejection occurred on POD 17, so steroid pulse therapy was initiated. After steroid pulse therapy, liver enzyme, PT-INR and T-bil were almost normalized (p. 7 l.20-23).

Hepatic artery reconstruction by the dorsal approach of the portal vein is a modified surgical strategy used in such populations, as now discussed on p. 10 l.23-p. 11 l.4. The GRWR was 3.6 % (under 4.0 %) in this case, but the abdominal wall could not be closed due to abdominal compartment syndrome. Neither octreotide nor somatostatin were used, but aggressive water removal using CHDF was very effective, as described in the discussion. Blood pressure and portal vein flow data were monitored to control the CHDF (p. 7 l.15-18).

“Apheresis” was changed to “exchange transfusion or plasmapheresis” on p. 10 l.7-8).

“Neonatal hemochromatosis” was changed to “Gestational alloimmune liver disease (GALD)” on p. 5 l.3.

The preoperative PELD score was recalculated and was 21.9 (p. 7 l.4).

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Reviewer: 3

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Discussion of vessel construction and perioperative management after the operation was added on p. 5 l.19-p. 8 l.3)

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“700 ml (238 ml/recipient body weight (g))” was changed to “700 ml (238 ml/recipient body weight (kg))” on p. 7 l.6.

“Transplantable recipient body weights of 2500 g or less” was changed to “transplantable recipient body weights of 2500 g or more” on p. 9 l.20.

The title was changed to “A rescue case of a low birth weight infant with acute hepatic failure”.

We thank the reviewers for their suggestions.