

Portal Vein-Variceal Anastomosis for Portal Vein Inflow Reconstruction in Orthotopic Liver Transplantation

Peer-review report - **answers**

Reviewer #1: The authors present a clinical case of a patient with liver cirrhosis following a schistosomiasis with portal thrombosis extended to the superior mesenteric vein with cavernomatous transformation and severe portae hypertension, MELD 23. The patient undergoes orthotopic liver transplant with piggyback venous outflow reconstruction and a portal vein-left gastric varix anastomosis for portal inflow I suggest to enrich the description of the clinical case to let the reader better understand the patient's history and clinical condition. It is in fact a case report of a post-infection of Schistosomiasis cirrhosis, a pathology little known in most Western countries and some readers may be interested in learning more about the patient's history and the diagnostic process of the etiology and if there are any particular preventive therapeutic interventions for liver transplantation.

When has cirrhosis been diagnosed with portal hypertension?

Answer: The patient presented in 1993 with variceal bleeding leading to a subsequent diagnosis of non-cirrhotic portal hypertension with splenomegaly and portal vein thrombosis with cavernous transformation.

Was an esophagofastroduodenoscopy performed?

Answer: Preoperative esophagofastroduodenoscopy showed grade III esophageal varices and portal hypertensive gastropathy (PHG).

Were there any varices or endoscopic signs of portal hypertension?

Answer: Preoperative esophagofastroduodenoscopy showed grade III esophageal varices and portal hypertensive gastropathy (PHG).

When and how has the etiological diagnosis of Schistosomiasis been made?

Answer: The presence of granulomas and periportal fibrosis with preserved hepatic architecture on liver biopsy, together with positive serologic tests for antischistosomal antibodies and the patient origin suggested the diagnosis of hepatosplenic schistosomiasis.

Had the patient practiced a specific treatment in the past for the infection?

Answer: Whether the patient received anthelmintic therapy upon diagnosis is unclear, however, prior to transplant no specific prophylactic treatment was administered as there was no evidence of active hepatic or systemic disease.

Did the infectious disease still have a state of activity?

Answer: There was no evidence of active hepatic or systemic disease prior to transplant.

How was the activity of Schistosomiasis excluded or confirmed?

Answer: Serology testing.

It is useful to report a table with the patient's main laboratory data (blood count, liver and kidney function tests, etc.)

Answer: Laboratory results showed total white blood cell count of $2.67 \times 10^9/L$, hemoglobin levels of 8 g/dl, platelet count of $33 \times 10^9/L$, INR 2.43, total bilirubin of 7.5 mg/dl (and direct bilirubin of 3.6 mg/dl), serum sodium 140 mEq/L, serum creatinine 1.1 mg/dl and albumin levels of 2.5 gr/dl.

The size of the spleen should also be reported.

Answer: Spleen measuring 20 cm in diameter.

It seems necessary that the authors under discussion are much more detailed in reporting the literature data. It is useful that they report the success rates of the portal venous inflow reconstruction techniques.

Answer: Please see enriched discussion section.

Are there any special precautions to be taken against Schistosomiasis in liver transplant patients?

Answer: No.

Reviewer #2: The authors described a case of alternate portal vein inflow. i would like to congratulate the authors on doing this interesting case. These types of portal inflows via collaterals have been described in literature and are not the ideal but sometimes only option. These are good skills to have with you once a surgeon is starting his/her career in liver transplant. It would be interesting to see the long term follow up on these recipients.

Answer: Ten months post-operatively the patient is doing well with excellent liver function.