Hassab's Operation as an Elective Surgical Procedure in Portal Hypertension

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Abstract
Thirty eight patients of portal hypertension underwent Hassab's operation as an elective surgical procedure. Two patients died in the post-operative period and two developed mild encephalopathy. Three patients relapsed at intervals of 6 to 14 months, and all three were controlled by sclerotherapy. All the patients have been followed up for 1 to 41 years. In view of the low incidence of encephalopathy and relapsing, this procedure deserves consideration in the treatment of portal hypertension.

Key words: Portal hypertension, Hassab's operation, devascularization.

Introduction
Massive haemorrhage continues to be the major cause of death in patients of portal hypertension. For the prevention of bleeding, five procedures have been advocated: portasystemic shunt, transaction of the oesophago-gastric junction with reanastomosis, direct ligation of various, porto-azygos disconnection using a circular stapler, and endoscopic variceal sclerotherapy. Two decades ago, Hassab1,2 from Egypt demonstrated that splenectomy combined with extensive devascularization of the oesophagogastric junction in biliary and portal hypertension resulted in control of haemorrhage in almost all the patients. Hassab's operation has a negligible incidence of encephalopathy, the major drawback of a short procedure. With this background in mind, a prospective study was undertaken to evaluate the efficacy of Hassab's operation in preventing bleeding in patients of portal hypertension.

Material and Methods
Thirty eight patients (31 males, 7 females; aged 9-48 years, mean 21.8) of portal hypertension who underwent elective Hassab's operation were evaluated in the surgical services of the University Hospital. All the patients had history of haematemesis and/or melena in the past. In 18 patients who presented with acute bleeding, the bleeding was controlled by tamponade and vasopressin; three patients required sclerotherapy. Of these 18 patients four died in the hospital. The patients who had emergency sclerotherapy or died during the hospital stay were excluded from the study. All patients underwent liver function tests, oesophagogastroscopy, splenoflebogram and liver biopsy; in selected cases laparoscopy was done to assess the liver status. Fifteen (39.4%) patients had an extrahepatic block, 13 (34.2%) had cirrhosis and the rest (26.3%) had non-cirrhotic portal fibrosis. Nineteen (50%) patients were in Child's A grade, 12 (31.6%) in B and seven (18.4%) in C. Endoscopy showed varices in all the cases.

The operation included removal of the spleen and devascularization of the cardio-oesophageal junction and proximal half of the stomach. All the patients had an abdominal approach, in 28 patients a midline incision was made, while in the rest a bucket handle incision was made. The devascularization comprised of ligation of the left gastric, short gastric, left gastroepiploic, haemisplenectomy and inferior phrenic vessels. Pyloroplasty was done in all the patients to prevent gastric stasis resulting from division of the vagal trunks during extensive devascularization.

Results
Two patients died in the post-operative period, one with massive intra-abdominal haemorrhage and the other with massive haematemesis. Two patients developed mild encephalopathy and were treated by medical measures. Five patients had Grades I and II wound infection characterized by stitch abscess, erythema and induration. On follow up for 1 to 41 years, relapsing occurred in three of 34 patients at 6, 9 and 14 months respectively after the operation. The relapsing was controlled by emergency sclerotherapy in all the three patients, who had grade II varices on follow up.

Discussion
It has been suggested that most Indian patients with portal hypertension fall in Child's categories A and B5, while in Western countries they fall in category C.6 This discrepancy is probably because of the high incidence of alcoholic cirrhosis in the West. In India, 17%–30% of cases are due to non-cirrhotic portal fibrosis.3,4,10

In Hassab's series of 355 patients,3,6 eight patients had a rebleed in the immediate post-operative period; these were due to portal vein thrombosis (5), excessive devascularization (2) and failure of clotting mechanism (1). Of 171 patients followed up for 9 years or more, two patients had massive bleed and two had mild bleed, one of whom had cancer of the stomach. Of our 35 patients, two died in the post-operative period (one with haematemesis); on follow-up three patients rebleed at varying intervals. However, in all the three patients the bleeding was controlled by sclerotherapy. We have been selective in taking up the patients for this operation as most of our patients were in Child's categories A and B. High risk patients were subjected to sclero-
therapy. Recently, Babu et al from India reported a very low mortality and a low rebleeding rate following Hassab's procedure on 30 patients.

We believe that in view of the low risk of encephalopathy and rebleeding after Hassab's operation, this procedure deserves consideration in the treatment of portal hypertension.

References