The CT angiogram showed evidence of arterioportal shunting in segment VII of the liver likely secondary to arterioportal fistula with high-density layering contents suggestive of hemorrhage within the gallbladder and CBD. A digital subtraction angiography (DSA) was done in the view of embolization, super-selective catheterization beyond the fistula done, 018 fiber coils assisted with methyl glue used to embolize the fistula.

A repeat CT angiogram showed resolution of the fistula. Four weeks later the same patient underwent donor hepatectomy and the right lobe with MHV was transplanted to the recipient who had cryptogenic chronic liver disease (CLD) with decompensation, the patient and the recipient did well in the postoperative period with no complications and the patient was discharged home on day 7. The stent was removed 4 weeks after surgery.

Conclusion: Hepatic arterioportal fistula is a rare complication of liver biopsy; an early diagnosis and aggressive management using a multidisciplinary approach are needed to have a good outcome and liver biopsy should be done with extreme caution in centers where there is expertise.

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EXTRA-ANATOMIC HEPATIC ARTERY RECONSTRUCTION IN DECEASED DONOR

V Kapileshwer

Department of GI Surgery and Liver Transplantation, Army Hospital R and R, Delhi Cantt., India

Background: Hepatic arterial inflow to the liver graft following liver transplantation is critical to graft survival. Standard recipient to donor hepatic artery anastomosis may not be feasible when recipient hepatic artery is not available due to injury or recipient hepatic artery flow is inadequate. Extra-anatomic hepatic arterial reconstruction during deceased donor liver transplantation is required in these situations to ensure adequate hepatic arterial blood flow to the liver graft. Also, it is usually required during emergency revascularization of the liver graft following hepatic artery thrombosis (HAT) and in re-transplantations. The outcome in such patients is analyzed.

Method: A retrospective analysis of 30 patients who underwent deceased donor liver transplantation (DDLT) from March 2007 to May 2010 was done to assess the outcome of extra-anatomic arterial inflow reconstruction. DDLT with standard end-to-end hepatic artery anastomosis performed in 24 patients served as control. Extra-anatomic arterial reconstruction in the form of 7 aortic conduits was performed in 6 patients. The preferred choice of extra-anatomic hepatic arterial inflow reconstruction was to fashion an infrarenal aortic conduit using stored donor iliac artery graft routed through the base of the transverse mesocolon.

Result: Extra-anatomic hepatic arterial reconstruction was not associated with increased morbidity, mortality, operating room time, or thrombosis.

Conclusion: We conclude that extra-anatomic hepatic arterial reconstructions are associated with excellent long-term outcomes and provide acceptable alternatives for arterial reconstruction in DDLT.

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COMPRESSION OF THE INFERIOR VENA CAVA DUE TO CONGESTED LIVER DURING DECEASED DONOR LIVER TRANSPLANTATION

J Sathyanesan, S Rajagopal, V Velayutham, S Eswaran

Institute of Surgical Gastroenterology, Govt Stanley Hospital, Royapuram, Chennai, India

Case Report: A 42-year-old male was admitted to our hospital with the diagnosis of alcohol-induced decompensated liver disease. He underwent deceased donor liver transplantation on 09.03.2011. Caval anastomosis was done by a piggy-back technique to the common cloaca of the recipient hepatic veins. After the reperfusion, the liver got congested and compressed the inferior vena cava (IVC) causing persistent hypotension. To relieve the hepatic outflow obstruction, side-to-side anastomosis between recipient IVC and donor IVC was done. Even after cavo-caval anastomosis, the hepatic outflow obstruction persisted. Lifting the liver anteriorly and slightly downward relieved the hepatic outflow obstruction which in turn relieved the IVC compression. Liver was then fixed to the anterior abdominal wall to maintain the position. Patient is on regular follow-up and doing well.

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BILIRUBIN AS A PREDICTOR OF EARLY MORTALITY AFTER LIVER TRANSPLANTATION

S Kalghatgi, S Vivek, U Dattaram, ST Binoj, P Nitin, M Ramachandran, G Unnikrishnan, B Dinesh, OV Sudheer, D Puneet, N Subhalal, S Sudhindran

Amrita Institute of Medical Sciences, Kochi, Kerala, India

Background: High postoperative serum bilirubin is a marker of poor graft function and is often considered as an independent risk factor for mortality after liver transplantation. However, prolonged cholestasis with spontaneous recovery is not uncommon following liver transplantation.

Aim: To determine the accuracy of postoperative serum bilirubin in predicting early mortality (3 months) in patients undergoing liver transplantation with a view to identify a cut-off value and a time period with the best predictive value.

Method: The data of 97 consecutive patients who underwent liver transplantation at Amrita Institute of Medical Sciences between 2004 and 2011 were reviewed. The total bilirubin levels on postoperative days 1, 3, 7, and 14 were correlated with the incidence of mortality within 3 months of the procedure. Bivariate analysis was done using Pearson correlation and a receiver operating characteristics (ROC) curve was plotted.

Result: There was a statistically significant correlation between the bilirubin level on the 14th postoperative day and mortality within 3 months ($P=0.01$). The ROC curve suggested that a bilirubin level of 20 mg/dL on the 14th postoperative day is able to predict the mortality with 90% specificity. The bilirubin levels on days 1, 3, and 7 did not correlate with early mortality in this study.

Conclusion: Serum bilirubin >20 mg/dL on postoperative day 14 after liver transplantation is associated with a high incidence of early mortality and hence, may be helpful in identifying the subgroup of patients who will require aggressive management or re-transplantation.

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TRANSFUSION PREDICTORS IN PEDIATRIC LIVER TRANSPLANTATION—SINGLE CENTER'S EXPERIENCE

SD Allanki

Department of Transfusion Medicine, Global Hospital, Lakdikapul, Hyderabad

Background: Surgical techniques used during pediatric liver transplantation (LT) together with patient's coagulation profile and institutional practice are reported to have an effect on transfusion requirements.

Aim: To identify the factors which played a significant role in transfusion requirement among pediatric patients who underwent LT in our center and to compare between children weighing <10 Kg and children ≥10 Kg.

Method: From June 2003 to May 2011, 13 children underwent LT at this center. Of 13, 3 children weighed <10 Kg and 10 children ≥10 Kg at the time of transplantation. Pediatric end-stage liver disease (PELD) score, previous abdominal surgery, graft-recipient weight ratio (GRWR), cold ischemia time (CIT), operative time, blood loss, and intra-operative transfusions were compared in both the groups. Intra-operative transfusion was calculated as the sum of the total volume of red cells, plasma, platelets, and cryoprecipitate transfused intra-operatively. Data were expressed as median and range.

Result: Of 138 M/5 F, 3 children underwent DDLT, 2 whole livers and 1 split graft, and 10 children underwent LDLT. Of 10 children weighing 10 Kg, 3 children did not receive blood transfusions intra-operatively and 1 child received massive transfusion. PELD score (24.5 vs 20), CIT (3.9 vs 2.5 h), blood loss (1200 vs 500 mL), and intra-operative

transfusions (1160 vs 700 mL) were higher in children <10 Kg group than in ≥10 Kg group. There was no correlation between the previous abdominal surgery, GRWR, and operative time with transfusions in both groups, probably because of the small sample size. Overall survival was 92.3%.

Conclusion: This study is an effort to show descriptive data of our center's experience with regard to intra-operative transfusion requirement during LT in this small-sized patient population. Transfusion need for pediatric LT should be individualized for each patient based on the intra-operative conditions including surgical and patient features.

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SINGLE CENTER EXPERIENCE ON LIVING DONOR LIVER TRANSPLANTATION IN CHILDREN

N Mohan, S Karkra, R Mohanka, A Rastogi, R Kakodkar, M Balachandran, S Goja, AS Soin

Institute of Liver Transplantation and Regenerative Medicine, Medanta—The Medicity, Gurgaon, India

Aim: To assess the outcome of pediatric patients with living donor liver transplantation (LDLT).

Method: Retrospective analysis of prospectively collected data of 67 pediatric patients who underwent LDLT from August 2003 to June 2011.

Result: Of the 67 cases, 41 were males (61%) with a mean age of 6 years (5 months to 17 years) and a mean weight of 20.7 Kg (5.8–60 Kg). Indications were cholestasis in 32 (biliary atresia 25) and metabolic in 16 (Wilson's disease 10, tyrosinemia 2, primary hyperoxaluria 2, Maple syrup urine disease 1, and factor VII deficiency 1). Eighteen patients presented with acute liver failure of which 8 had Wilson's disease. Other indications were giant cavernous hemangioma 1, autoimmune hepatitis 2, and cryptogenic cirrhosis in 3. Donors were the parents in 44 and close relatives in 21. There was 1 swap donor and 1 domino graft. The grafts included left lateral 32 (48%) of which 12 were reduced, left lobe 28 (42%), right lobe 6 (9%), and whole liver in 1 case (domino). Hypertension (41.8%), acute rejection (36%), hyperglycemia (32%), sepsis (34%), pleural effusion/collapse (26.7%), Cytomegalovirus hepatitis (44%), biliary leak (3), and chylous ascites (4) were the immediate post-transplant complications. Portal vein thrombosis was seen in 7 (5 early—successfully managed at re-laparotomy and 2 late—managed conservatively) and Hepatic artery thrombosis (HAT) in 3 cases (2 died, 1 re-transplanted). Four patients had chronic rejection. Enzyme normalization and steroid withdrawal (30.35%) occurred over a mean period of 16.25 days and 14 months (6–36 months), respectively. There were 3 early deaths—an operative mortality of 3.5%, and 4 late deaths. Overall, 60 of the 67 patients (89.5%) were alive and well at a mean follow-up of 27.4 months (1–82 months); 19 (32%) patients were