025 LIVER

P272 TRANSFUSION NEEDS DURING LIVER TRANSPLANTATION AT THE CHU OF LIEGE (BELGIUM): CHARACTERISTICS AND PREOPERATIVE PREDICTIVE FACTORS

Isaline Page[1], Gregory Hans[1], Olivier Detry[2], Christiane Gerard[3], Jean Joris[1]
[1]Department of Anesthesiology and Intensive Care Medicine, CHU Liege; [2]Transplantation Surgery, CHU Liege; [3]Blood Bank, CHU Liege

Introduction: Liver transplantation (LT) can result in significant bleeding requiring transfusion of allogenic blood products, which potentially leads to postoperative morbidity and mortality (1). This study aimed to determine transfusion needs during LT in our institution and its preoperative predictive factors.
Material and Methods: Two hundred LT performed at the CHU Liege between 2006 and 2012 were respectively reviewed (age = 55 ± 11 yo, BMI = 25.5 ± 4.4 kg/m^2, F/M = 45/155, MELD score = 19 ± 10). Transfusion needs of the different blood products during POD 0, and POD 0–7 were recorded. Parameters associated with the transfusion of more than 2 units of RBC ($p \leq 0.1$) were identified using the Kruskal Wallis and chi square tests (table 1). These parameters were then placed into a backward stepwise logistic regression model for the transfusion of more than two units of RBC at POD 0. A p value threshold ≥0.1 was used for leaving the model.
Results: Transfusion needs were: RBC = 2[0–4], FFP = 4[2–7], PLT = 1[0–1] during POD 0; and RBC = 3[0–6], FFP = 6[3–10], PLT = 1[0–2] during POD 0–7. Preoperative factors independently associated with the transfusion of more than two units of RBC were preop Hb (0.6 [0.46–0.79], $p < 0.001$) and MELD score (1.13 [1.06–1.20], $p < 0.001$).
Discussion: These results suggest that preop Hb and MELD score are associated with blood requirements during LT.
References: 1. J Am Coll Surg 2013; 216:902–7.

Table 1 Data are median [IQR].

	>2 RBCs	≤2 RBCs	p value
Female gender, %	73	78	0.5
BMI, kg/m^2	24.8 [5.3]	25 [4]	0.6
NHBD donor, %	18	42	0.001
Portal hypertension, %	53	49	0.6
Cold ischemia time, min	321 [23]	286 [294]	0.38
Warm ischemia time, min	41 [14]	44 [15]	0.2
MELD score	27 [8]	14 [10]	<0.001
Preop Hb, g/dl	10 [3]	12.5 [3]	<0.001
Preop fibrinogen, g/l	1.9 [2.1]	2.8 [1.5]	<0.001
Preop platelets, ×1003/μl	79 [52]	95 [76]	0.03

NHBD, Non-heart-beating donor; MELD, Model for End-Stage Liver Disease score.

P273 SHORT TERM SAFETY AND FEASIBILITY OF MTORI FROM THE FIRST LIVER TRANSPLANT DAY

Tommaso Maria Manzia[1], Roberta Angelico[2], Belardi Chiara[3], Annagrazia Cillis[4], Daniele Sforza[3], Luca Toti[5], Claudia Quaranta[3], Giuseppe Tisone[3]
[1]Experimental Medicine and Surgery Department, Tor Vergata University of Rome; [2]Queen Elizabeth Hospital; [3]Experimental Medicine and Surgery Department; [4]Children's Hospital; NHS Foundation Trust; [5]Tor Vergata University

Introduction: We designed a retrospective observational study to evaluate everolimus usage ab initio after liver transplantation.
Materials and Methods: Fifty five non consecutive adult patients (47M/8F, mean age 52 ± 10.5 years) who received liver transplantation between 2009 and 2014 were included in the study. All recipients received everolimus from the first transplant day either in association with CNI's or antimetabolites. The primary goal was to assess the safety and feasibility of everolimus after liver transplantation; the remaining objectives were to evaluate liver function and the incidence of rejection and side effects. Results: The 1 year patient and graft survival was 85%. Liver function was stable during the follow-up of 1 year. No rejections were observed. Only five patients (12%) required therapy for onset dyslipidaemia. Conclusion: Low-dose regimen of everolimus immediately after liver transplantation is safe and feasible whenì associated with low doses of calcineurin-inhibitor or antimetabolite, permitting to avoid all the side effects of standard regimens with higher doses.

P274 LIVING DONOR LIVER TRANSPLANTATION FOR CLASSICAL MAPLE SYRUP URINE DISEASE: CASE REPORT

Ibrahim Aliosmanoglu[1], Halil Erbis[1], Erdogan Soyucen[2], Bunyamin Ozturk[3], Vural Taner YiLmaz[1], Ayhan Dinckan[1]
[1]Akdeniz University Organ Transplant Center; [2]Akdeniz University Department of Pediatrics; [3]Akdeniz University Department of Anesthesiology

Objectives: Despite progress in medical management, classical maple syrup urine disease (MSUD) poses a risk of serious neurologic disability and untimely death. Acute metabolic intoxication causes cerebral edema that can culminate in brain herniation and cardiorespiratory arrest. We represent early post transplant period of two pediatric MSUD patients whose Branched-chain ketoacid dehydrogenase (BCKDH) enzyme activity was 0%.
Cases: 28 and 11 months old male patients developed neurologic symptoms such as nausea, vomiting and drowsiness after birth. Branched-chain amino asid (BCAA) levels were found high after metabolic evaluation. Patients were fed with special MSUD formulas because of entire body BCKDH activity was 0%. Thus especially the brain was preserved from acute and chronic metabolic intoxication. Physical development of patients became appropriate for liver transplantation. In case 1 living donor liver transplantation (LDLT) was performed from his father in December 2013. In case 2 LDLT was performed from his mother in December 2014. Both patients post operative period was uneventfull. In follow up after transplantation BCAA levels and liver function tests were normalized in both patients. Three weeks after transplantation patients were fed entirely normally. Irregularities observed in neurocognitive functions prior to transplant have disappeared completely at the post transplant period.

Conclusions: Diatery regulation is mandotary for MSUD. Particularly in developing countries, the availability of medical foods, convenience and speed of amino acid monitoring, and access to emergency metabolic care is still a major problem. Therefore, Liver transplantation is an effective alternative to dietary treatment in patients with MSUD. Liver transplantation provides sufficient BCKDH enzyme activity so it can be effective and permanent method for treatment of this disease. And also liver transplantation may prevent possible brain damage in these patients.