Results: All animals receiving 1500 mg/kg b.w. or 1250 mg/kg b.w. died within 11 ± 10 or 13 ± 7 h caused by cardiocirculatory failure. Three of the pigs receiving 1000 mg/kg b.w. died due to acute liver failure within 30 ± 8 h, but three animals recovered after severe liver damage and were killed after 48 h. Animals with 500 mg/kg b.w. bolus and blood levels of 300–400 mg/l died after 21 ± 9 h due to cardiac arrest. Pigs with 250 mg/kg b.w. bolus and blood levels of 300–400 mg/l survived minimum 27 and maximum 45 h (mean 37 ± 7) and died due to acute liver failure.

MISCELLANEA

P14 COMBINED TREATMENT WITH SCLEROTHERAPY AND BANDING FOR VARICEAL BLEEDING IN CANDIDATES FOR LIVER TRANSPLANTATION: PRELIMINARY RESULTS

Lorenzo Norberto, Lino Polese, Umberto Cillo, Patrizia Burra, Alberto Brolese, Daniele Neri, Giacomo Zanus, Patrizia Boccagni, Alberto Pauletto, Davide F. D'Amico, Lorenzo Norberto; Department of Surgical and Gastroenterological Sciences, University of Padova, Policlinico Universitario, Padova, Italy

Objective: According to the literature, endoscopic banding is as effective as sclerotherapy to stop variceal bleeding in emergency. Banding gives less complications, but, in presence of severe bleeding the kit on the endoscope tip decreases the lumen visibility. Aim of the present study was to evaluate the efficacy and safety of a combined therapy with one session of sclerotherapy to stop the bleeding and thereafter banding for variceal eradication. With this combined treatment we add the good bleeding control of sclerotherapy and the low risk of complications of banding.

Patients and methods: From 2000 to 2007 in the Liver Transplantation Unit of Padova we treated for variceal bleeding in emergency 65 patients. In all was performed a first session with sclerotherapy, thereafter in 38 patients variceal eradication was completed with sclerotherapy, in 27 with banding.

Results: The number of sessions required to achieve variceal eradication was significantly lower in the patients treated with combined sclerotherapy + banding versus sclerotherapy alone (respectively 4,4 ± 1,9 vs. 5,9 ± 2,2, $P < 0.01$). After a mean follow-up of 20 months, no significant difference was found when comparing rebleeding (24% sclerotherapy vs. 15% combined), variceal recurrence (29% sclerotherapy vs. 15% combined), mortality (11% sclerotherapy vs. 15% combined) and complications (11%sclerotherapy vs. 7% combined).

Conclusion: Combined treatment with sclerotherapy followed by banding for variceal bleeding is an effective and safe method. It requires less sessions to obtain variceal eradication when compared with the sole sclerotherapy. Randomized prospective studies should be performed to confirm if this method is preferable to sclerotherapy.

P15 INDIVIDUAL DRUG THERAPY IN LIVER TRANSPLANTATION

Laszlo Kobori, Eniko Sarvary, Janos Fazakas, Attila Doros, Imre Fehervari, Denes Gorog, Zsuzsanna Gerlei, Jeno Jaray, Katalin Monostory; Transplantation and Surgical Dep., Semmelweis University, Budapest, Hungary

A well-designed therapeutic strategy may contribute to the patient/graft survival and success of liver transplantation. The vision of IMMUNOCYP project is to develop a global approach by combining immunological and drug-metabolizing factors for establishment of individual drug therapy for transplanted patients. Drug-metabolizing capacity of liver depends primarily on the levels and activities of the cytochrome P450 enzymes (CYP). The early detection of poor-metabolizer status of the graft and of adverse immunological reactions facilitates rationalization of medication. A validated analytical system with genomic, transcriptomic and metabolomic tools has been developed for estimation of the drug-metabolizing capacity of transplanted liver, which allows the prediction of potential poor-metabolizer phenotypes of donors and reflects drug-related hepatic injury. CYP genotyping is able to estimate permanent poor-metabolism derived from inactivating mutations. CYP phenotyping detects the lack of functional activity of CYP enzymes. Strong correlations were found between CYP activities of the donor liver and mRNA levels of the donor leukocytes ($r > 0.9$). It means that CYP mRNA levels in leukocytes reflects CYP activities of the liver. Of the 42 liver donors in Hungary, frequency of functional poor-metabolizers was found to be 14%, 29% and 48% for CYP2C9, CYP2C19 and CYP3A4, respectively. The recipients transplanted with CYP3A4 poor-metabolizer liver required reduction of cyclosporin doses, in case of other CYP enzyme defect mediaction was tailored as well.. Some patients transplanted with CYP3A4 extensive-metabolizer graft produced high concentrations of toxic cyclosporin metabolites and needed alternative immunosuppressive therapy. As verified by 42 recipients, the optimization of drug choice and/or dose for more effective therapy leads to avoid adverse effects and drug failures.

P16 HEPATIC VENOUS HEMOGLOBIN OXYGEN SATURATION AS AN EARLY PREDICTOR OF LIVER FUNCTION IN ORTHOTOPIC LIVER TRANSPLANTATION

Chrysoula I. Papageorgiou, Vasilios G. Papanikolaou, Eleni F. Katsika, Aggeliki Partapani, Dionisios V. Vrochides, Dimitrios N. Takoudas; 1st Anaesthesiology Department, University Hospital Hippokration, Thessaloniki, Greece

Specific objective: In this study we measured hepatic venous oxygen saturation (ShVO2) in liver transplantations in order to evaluate its usefulness as a predictor of early postoperative graft function after orthotopic liver transplantation.

Method: We study 35 adult patients who underwent cadaveric liver transplantation. All the patients were at Child-Pugh class C, with end-stage cirrhosis. They underwent the same anaesthetic and surgical technique. They were divided in two groups: group A ($n = 28$) patients with satisfactory function of liver graft and group B ($n = 7$) patients with primary non- function or primary dysfunction during the first postoperative month. During the operation, whole blood was taken from recipient's hepatic vein in the following phases of transplantation: (i) 10 min after reperfusion of portal vein (PV) (pv1) (ii) 20 min after reperfusion of PV(pv2) (iii) 10 min after reperfusion of hepatic artery HA (ha1) (iv) 20 min after reperfusion of HA (ha2) and (v) at the end of the operation (ha3). Postoperatively, the function of the graft was evaluated from coagulation tests, alanine aminotransferase, aspartate aminotransferase, bilirubin, serum glucose and lactic acid.

Results: We found out that ShVO2 of grafts with good function was over 60% after reperfusion and the mean value was 71.68 (95% CI 67.2–74.8%). ShVO2 of the grafts with poor function never increased over 60% after reperfusion and the mean value was 53.8% (95% CI 35.1–69.1%). Especially, there were statistically significant difference among the two groups in each phase of liver transplantation.

Conclusion: Monitoring of ShVO2 is a useful method to evaluate early grafts function during liver transplantation, even though immediately after reperfusion.

P17 OUTCOME OF HEPATICOJEJUNOSTOMY FOR BILIARY TRACT OBSTRUCTION FOLLOWING LIVER TRANSPLANTATION

Georg P. Györi, Felix B. Langer, Herwig Pokorny, Christoper K. Burghuber, Susanne Rockenschaub, Gabriela A. Bertakovich, Ferdinand Mühlbacher, Rudolf Steininger; Dep. of Clinical Transplantation, University Clinic of Surgery, Medical University, Vienna, Austria

Background: Biliary strictures and concrements are common complications following liver transplantation. Endoscopic treatment might not lead to a definitive cure in all patients, especially in strictures involving the biliary bifurcation. The aim of this study was to determine the efficacy and the long-term outcome of hepatico-jejunostomy for post-transplant biliary tract obstruction.

Material and Methods: Thirty seven patients were retrospectively studied who underwent conversion from choledocho-choledochostomy to hepatico-jejunostomy for biliary strictures and concrements in a series of 807 liver transplantations. Resolving of cholestasis and the incidence of recurring biliary obstruction were analyzed.

Results: Surgery was performed due to anastomotic strictures in 11, ischemic strictures at the donor common bile duct in seven, strictures involving the bile duct bifurcation in 10, hepatolithiasis without structures in one and biliary sludge formation diagnosed by t-tube cholangiography in eight patients. Cholestasis instantly improved in 82% of the patients. After a long-term follow-up of median 33 months (range 3–149), 28 of the patients (76%) required no further intervention for recurring biliary obstruction following hepatico-jejunostomy. Anastomotic structures were observed in six (16%), recurring biliary concrements in two patients (5%).

Conclusion: HJS did prevent re-interventions for recurrent biliary obstruction in the majority of the patients. We therefore recommend early hepatico-jejunostomy for complicated post-transplant biliary tract obstruction not treatable by a limited number of endoscopic interventions.

P18 CLINICAL IMPACT OF OBESITY (BMI > 30) AFTER LIVER TRANSPLANTATION

Maria Clara Dezza[1], A. Rossetto[1], E. Sieders[1], Maurizio Sainz Barriga[1], Xavier Rogiers[1], Roberto Troisi[1], Bernard De Hemptinne[1], Patrizia Burra[2]; [1]Hepatobiliary and Liver Transplant Service, Ghent University Hospital, Ghent, Belgium; [2]Department of Surgery & Gastroenterological Sciences, Universita degli Studi, Padova, Italy

Introduction: Obesity appears to be a risk factor affecting overall outcome in organ transplantation. Pulmonary, cardiovascular and surgical complications following liver transplantation (LT) have been associated to obesity. Aim of this study is to review retrospectively our experience focusing on the role of BMI postransplant complications and retransplantation rate.