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PRETRANSPLANT PORTAL VEIN THROMBOSIS: HOW TO SUCCESSFULLY RESTORE PORTAL FLOW (PF) INTO THE GRAFT. Gi-Won Song[1], Sung-Gyu Lee[1], Shin Hwang[1], Chul-Soo Ahn[1], Deok-Bog Moon[1], Kyoung-Won Kim[2], Ja-Young Cho[1]. *[1]Division of Hepatobiliary Surgery and Liver Transplantation, Department of Surgery, Asan Medical Center, Seoul, Korea; [2]Department of Radiology, Asan Medical Center, Seoul, Korea*

(Background) Although PVT is not currently absolute contraindication for liver transplantation (LT), it is considered that the patient with pretransplant PVT carries high risk for posttransplant mortality and morbidity due to complexity of surgical procedure for PF restoration. In this study, we would like to show actual surgical outcome of LDLT in patient with pretransplant PVT and introduce our technical tips. **(Patients and Methods)** 568 single graft adult LDLTs which were performed from 2004 June to 2007 June in our institution. All patients were divided into two patients groups: PVT group and non-PVT group. We analyzed demographic and clinical characteristics of patients of each group. And compared short-term and long-term outcome of each group. In addition, we reviewed our surgical techniques about PVT or PVS. **(Results)** In 41 cases (7.2%), pretransplant PVT was found. Among 41 patients with PVT, 11 patients (26.8%) showed complete obstruction and 30 patients showed partial obstruction. The thrombus was limited in PV trunk in 25 patients (61.0%), located in PV trunk and proximal superior mesenteric vein (SMV) in 10 patients(24.4%) and extended into distal SMV in 6 patients(14.6 %). The surgical procedures for PV thrombectomy and reconstruction were divided into 4 categories: 1) PV plasty with eversion thrombectomy 2) PV plasty and intraoperative PV stent insertion without complete thrombectomy 3) Interposition vein graft 4) Extra-anatomical anstomosis by using porto-systemic collateral. In-hospital mortality rate of PVT group 2.4% which was not different from non-PVT group. The re-thrombosis rate was 4.9%. Among 41 patients with pretransplant PVT, post-transplant PVS developed in 4 cases (9.8%) and PV stent insertion was performed in all cases. Preoperative demographic and clinical characteristics were not different between two group. And 1-year and 3-year survival rate were similar between 2 groups. Even in patients with complete PVT or PVT extended into SMV showed similar short-term and long-term result. **(Conclusion)** Pre-transplantation PV PS is not contraindication for LDLT. However, cautious patient selection and thorough make-up of operative strategy should be preceded.

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VERY EARLY HEPATIC ARTERY THROMBOSIS AFTER LIVER TRANSPLANTATION MAY NOT BE DETECTED BY POST-OPERATIVE TRANSAMINASE ELEVATION. Vasilios Papanikolaou[1], Dionisios Vrochides[1], Georgios Imvrios[1], Dimitrios Giakoustidis[1], Ioannis Fouzas[1], Nikolaos Antoniadis[1], Achilleas Ntinas[1], Dimitrios Kardasis[1], Evangelos Akriviadis[2], Themistoklis Vasiliadis[2], Ioannis Goulis[2], Eva Anagnostara[3], Evangelia Katsiki[4], Nikolaos Ouzounidis[1], Georgios Tsoulfas[1], Tatiana Amvrosidou[1], Anastasios Tsitlakidis[1], Dimitrios Takoudas[1]. *[1]Organ Transplant Unit, Aristotle University, Thessaloniki, Greece; [2]Department of Internal Medicine, Aristotle University, Thessaloniki, Greece; [3]Department of Anesthesiology, Aristotle University, Thessaloniki, Greece; [4]Department of Pathology, Aristotle University, Thessaloniki, Greece*

Introduction: Transaminase elevation is one of the cardinal signs of hepatic artery thrombosis (HAT). More than 35% of liver recipients with late HAT (> 30 days post-transplant) display no transaminase elevation. However, transaminase elevation secondary to very early HAT (within 48 hours after graft reperfusion) is not well studied.

Purpose: To study the liver enzyme elevation secondary to very early HAT after liver transplantation.

Methods: A total of 231 primary, adult, single-organ liver transplants were performed from 1990 to 2007. Fifteen patients (6.49%), were diagnosed with very early HAT either by Doppler of by contrast enhanced computed tomography (ceCT) scan. Aspartate aminotransferase (AST) value ≥ 800 IU/ml within the first two postoperative days predicted early graft failure (within 90 days post-transplant) with 90% sensitivity and 100% specificity (s=0.960, p=0.005). Group A' patients (n=9) reached this threshold, whereas group B' patients (n=6) did not.

Results: All liver grafts with very early HAT finally failed, leading to either re-transplantation or patient's demise. Mean graft survival was 32.78 ± 22.82 and 221.17 ± 171.80 days for groups A' and B' respectively (p=0.006). Mean AST value two days after transplantation was 2688 ± 1226.18 and 375 ± 169.65 IU/ml for groups A' and B' respectively (p=0.001).

Conclusions: Very early HAT after liver transplantation has two distinct patterns of presentation. The first one is associated with high post-operative AST values and leads to rapid graft failure. The second is associated with mildly elevated post-transplantion AST values and leads to a much slower graft failure.

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COMPARISON OF TECHNICAL VARIANT AND WHOLE ORGAN LIVER GRAFTS IN THE ERA OF MELD. Felix Braun[1], Human Honarpisheh[1], Rainer Guenther[2], Jessica Walter[1], Maren Schulze[1], Martin Burdelski[3], Dieter C. Broering[1]. *[1]Klinik für Allgemeine Chirurgie und Thoraxchirurgie, Universitaetsklinikum Schleswig-Holstein, Campus Kiel, Kiel, Germany; [2]Klinik für Allgemeine Innere Medizin, Universitaetsklinikum Schleswig-Holstein, Campus Kiel, Kiel, Germany*

In our experience, survival after liver transplantation (LTx) before MELD was similar using split or whole grafts. However, some centres are reluctant to use technical variants (split, reduced-size, living-donor) because the personal feeling suggests better results using the whole donor liver, especially after the introduction of MELD. Therefore, we compared the outcome of technical variant grafts with whole grafts in the MELD-era.

Since 01.01.2007, 104 liver transplants (55 full size, 48 technical variants, 1 domino) have been performed in 92 patients (median age 50.54 (0.32-71.17) years). The current patient and graft survival rates were 95.65 und 86.54%. All four fatal outcomes occurred after whole organ LTx, while none of the recipients deceased after technical variant LTx. In total 14 liver grafts were lost (10 whole organ and 3 technical variants). Reasons for graft loss were primary non(dys)function (n=4), exitus (n=4), ITBL (n=2) and hepatic artery thrombosis (n=1) after whole organ LTx and hepatic artery thrombosis (n=2) and primary dysfunction (n=1) after technical variant LTx. Mean (±SD) MELD was 23.45±9.33 for whole organ and 22.40±7.01 for technical variant graft. Analysis of actuarial patient and graft survival comparing technical variant with whole organ LTx resulted in p-values of 0.0032 and 0.0296.

In our series, patient and graft survival rates after LTx were significantly better in technical variant compared with whole organ grafts after the introduction of MELD. Therefore, technical variant grafts can also be used safely in the era of MELD.

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RECIPIENT OUTCOMES IN DOMINO LIVER TRANSPLANTATION (LT) WITH DONOR VENA CAVA PRESERVATION (VCP). R. Garcia-Roca[1], M. M. Modolo[1], P. Taura[2], J. Beltran[2], S. Sanchez[1], J. Marti[1], J. Ferrer[1], D. Calatayud[1], C. Fondevila[1], J. Fuster[1], J. C. Garcia-Valdecasas[1]. *[1]ICMDM, Hospital Clinic, Barcelona, Spain; [2]Anesthesia, Hospital Clinic, Barcelona, Spain*

INTRODUCTION

Familial amyloid polyneuropathy (FAP), a slow progressive genetic disorder manifested in young adults successfully treated with LT. Such livers, otherwise functionally normal, can be used for LT in a selected group of patients. Donor hepatectomy with VCP is considered a safer procedure and more hemodinamically stable. However, may increase the complications compromising the outcome in FAP liver recipients due to inadequate outflow. The aim of this study is to retrospectively evaluate the outcome and specifically the incidence of venous outflow complications in FAP liver recipients.

MATERIALS AND METHODS

From Jan-01 to Dec-08, 30 patients received a LT from a FAP donor (8F:23M), the mean age was 62 years old at time of transplant and a mean ischemia time of 7:56 min. The main causes of liver disease were HCV (53%), ETOH (32%) and 33,3% of them also had HCC associated with the primary disease. In all patients, hepatectomy was performed with VCP following the piggy-back technique. FAP liver venous outflow reconstruction was performed using vena cava from the deceased donor, by 2 techniques: using the retrohepatic vena cava (n=23) or iliac bifurcation (n=5), both associated with venoplasty of the 3 hepatic veins. Persistence of ascitis postoperatively was defined by production of >500ml/day for more than 10 days. Patient and graft outcomes, ischemia time and vascular complications were analyzed.