J Liver 2017, 6:2 (Suppl)
http://dx.doi.org/10.4172/2167-0889-C1-012

Comparison of short-term and long-term outcomes after DCD and DBD donor liver transplantation

Wayel Jassem, Hector Vilca Melendez, Meriam Cortes, Krishna Menon, Yugesh Puri, John O'Grady, Mohamed Rela and Nigel Heaton
King's College London, UK

Introduction: Liver transplantation (LT) using donation after cardiac death (DCD) allografts has been increased; however the occurrence of primary non-function (PNF) and ischaemic cholangiopathy (IC) has curbed their expansion. Here, we compare the outcome of LT with donation after brain death (DBD) and DCD grafts performed in our institution.

Study Design: Between 2001 and 2014, we carried out the study on 293 adult controlled DCD LT, which were compared to matched 293 DBD allografts. DCD grafts had a cut-off of maximum 30 min of warm ischaemia and were allocated to recipients with no previous extensive abdominal surgery.

Results: There was no difference in gender and recipient's BMI between DBD and DCD transplants, however DBD donors were older and had longer cold ischaemic time. Patients who received DCD grafts presented higher levels of AST ($p<0.0005$), however, there was no significant difference in Intensive Care Unit or Hospital Stay between the 2 groups. PNF was significantly higher in DCD allografts ($p<0.0005$), nerveless; there was no statistically significant difference in the incidence of renal replacement therapy, rejection, biliary or vascular complications between the 2 groups. There were no significant differences in PIC occurrence between the 2 groups. Although more patients with hepatocellular carcinoma were allocated to a DCD graft, there was no difference in HCC recurrence. Overall patient and graft survival was higher in the DBD group ($p=0.025$, $p=0.002$). When transplants for HCC are excluded, no difference in overall patient and graft survival are observed.

Conclusions: The data shows a favourable outcome of liver transplants using DCD allografts. More work is required to explore the impact of DCD status on HCC recurrence. Minimising CIT and optimising donor/recipient matching is crucial in order to achieve good outcome.

wayel.jassem@kcl.ac.uk

Novel non-invasive diagnostic biomarkers of liver disorders

Iftikhar Ahmed
University of Southampton, UK

Diagnosis of complex liver disorders requires extensive and often invasive investigations including liver biopsies and places a heavy burden, both on healthcare resources, because of the cost, and on the individual, in times of disease-related disability and poor quality of life. Recently, there has been increasing interest in non-invasive biomarkers to diagnose various Gastrointestinal and liver disorders. There is growing scientific interest in the investigation of metabolomics and numbers of studies have focused on the utilization of non-invasive biomarkers in the diagnosis of liver disorders. The development of sophisticated analytical techniques has enabled the study and interpretation of changes in the fecal and breath volatile organic metabolites (VOMs) and its correlation with the pathophysiological mechanisms in the liver. VOMs are the chemicals that are the products and intermediates of metabolism and may be altered in liver diseases. Changes in faecal VOMs should reflect GI disorders and could potentially provide diagnostic information about these conditions. Multiple studies reported the differences in VOM profiles of healthy controls vs. patients with liver and other GI disorders. VOM profiles have been used to segregate patients by disease activity and the type of disease. The correlation of VOMs with microbiota is interesting and supports the hypothesis of gut microbial dysbiosis in the etiology of liver disease. This provides an important platform to explore the role of dysbiosis in liver and other GI disorders pathogenesis and development of novel therapeutic targets. In future, further understanding of fecal VOMs may lead to the development of a rapid and simple point of care diagnosis and monitoring of liver.

iftikhar.ahmed5@nhs.net