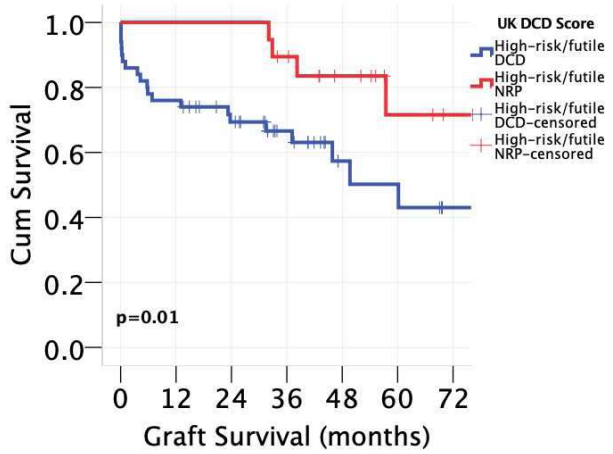
OP262 RE-WRITING THE DEFINITION OF HIGH-RISK AND FUTILE DCD LIVER TRANSPLANTATION WITH NRP

Ahmed E. Sherif, Andrew Sutherland, Ian Currie, Fiona Hunt, Gabriel C Oniscu

Edinburgh Transplant Centre, Edinburgh, United Kingdom

Background: UK Donors after circulatory death (DCD) risk score is widely utilised to identify low-risk, high-risk and futile liver transplants. Normothermic regional perfusion (NRP) has shown excellent survival outcomes compared with standard DCD grafts. We thought to investigate if the high-risk and futile transplants as defined by the UK DCD risk score should be reconsidered in the era of novel perfusion technologies.
Methods: Data on all DCD liver transplant recipients were retrospectively collected in a UK liver transplant centre (2005-2018). The primary outcomes were graft and patient survival compared according to the mode of retrieval (standard DCD retrieval vs NRP retrieval). The secondary outcome was the incidence of ischemic cholangiopathy (IC) in both groups. Statistical analysis using Kaplan Meier survival curves and log-rank test was performed.
Results: 22 NRP and 101 DCD liver transplants were undertaken in the study time period. In the standard DCD group had 51 were low-risk (50.5%) and 50 high-risk/futile transplants (49.5%), while NRP had 3 low-risk (13.6%) and 19 high-risk/futile transplants (86.4%). Donors and recipients characteristics were comparable between groups. IC was not observed in the NRP group, but developed in 25 patient in the standard DCD group (24.7%). Graft survival for the high-risk or futile transplants was significantly lower at 1 and 5 years post-transplant with standard DCD compared with NRP, log-rank test p = 0.01 (Figure 1).
Conclusions: The majority of livers transplanted in the NRP group were categorised as high-risk or futile but had better graft survival outcomes compared to standard DCD. The definitions of the UK DCD risk score need to be reconsidered with the use of novel perfusion technologies.



CLINICAL ASPECTS OF KIDNEY REJECTION

OP283 INCIDENCE AND PREDICTORS OF FAILED KIDNEY ALLOGRAFT INTOLERANCE SYNDROME

Carolina Ormonde[1], Sara Querido[2], André Weigert[2]

[1]Nephrology, Hospital do Divino Espírito Santo, Ponta Delgada, Portugal; [2]Centro Hospitalar Lisboa Ocidental, Hospital de Santa Cruz, Nephrology, Lisbon, Portugal

Background: Up to 40% of patients with failed kidney allograft develop immunologic intolerance syndrome (IS). Is it characterized by chronic inflammation and confers high morbidity. Most require transplantectomy, but this procedure is associated with various complications. It could be beneficial to predict which patients with failed allograft would benefit from early transplantectomy. This syndrome is poorly understood and there are scarce data about it in the literature. Therefore, our aim was to evaluate the incidence and predictive factors of IS in our kidney transplant unit.
Methods: Cohort observational retrospective study. We included all kidney transplant patients from our center that had a failed allograft at least 6 months after transplantation, from 2008 to 2018. All patients were followed until 1st January 2021. Clinical and analytical data were collected. Descriptive, univariate and multivariate analysis were performed with *SPSS Statistics*.
Results: A total of 160 patients had a failed allograft in the study period. IS incidence was 39.4% (n = 63). The median time from graft failure to IS development was 7.1 months(4.2-13.0). Patients who developed IS, compared with those who didn't, had more frequently a graft from a deceased donor(95.0% vs 67.9%; p = 0.005, OR 3.4, 95%CI 1.2-9.8), acute antibody-mediated rejection episodes(36.2% vs 19.6%; p = 0.024, OR 2.3, 95%CI 1.1-4.9) and shorter graft survival (9.4 vs 11.2 years; p = 0.042). These factors were predictive of IS in a multivariable analysis. ROC curve analysis showed that this predictive model had a fairly accuracy for IS(AUC = 0.72). Patient and donor age, immunologic profile and type of immunosuppression were not associated with IS.
Conclusion: IS was frequent in failed allograft patients in our unit and its incidence was comparable to other series. Type of donor, antibody-mediated rejection episodes and graft survival can reasonably predict IS. Larger and prospective studies are needed to validate these results.

OP284 LONG-TERM APHERESIS IN THE MANAGEMENT OF PATIENTS WITH RECURRENT FOCAL SEGMENTAL GLOMERULOSCLEROSIS AFTER KIDNEY TRANSPLANTATION: A CASE SERIES

Audrey Uffing[1,2], Tango Consortium[2], Paolo Cravedi[3], Leonardo Riella[2], Stefan Berger[1]

[1]Nephrology, University Medical Center Groningen, Groningen, Netherlands; [2]Massachusetts General Hospital, Boston, United States; [3]Mount Sinai Hospital, New York, United States

Background: Focal segmental glomerulosclerosis (FSGS) can recur after kidney transplantation and is usually treated with apheresis. Following initial treatment, a subset of patients achieves an apheresis-dependent response. These patients are treated chronically to remain in remission, but little is known about their clinical outcomes.
Methods: We analyzed a multi-center, international, retrospective case series to determine the clinical course of patients with post-transplant FSGS treated with long-term apheresis (>6 months).
Results: A total of 27 patients with recurrent FSGS were included from 11 transplant centers in Europe, the USA and Brazil. Median (IQR) time of follow-up was 4.1 (3.0-6.3) years, median time on apheresis was 23 (12-48) months. Long-term apheresis was performed by plasmapheresis (74%), immunoadsorption (11%) or both (15%). Nine patients received continued apheresis at maximum follow-up with a median frequency of twice a month (median time on apheresis 47 (36-54) months), while 10 patients were successfully weaned off apheresis. In four patients, apheresis was terminated due to rising levels of proteinuria (n = 3) or infection (n = 1). Four patients never achieved remission despite long-term treatment. Rituximab was commonly used (78%), although timing and number of doses (1-8) varied widely. Viral and/or bacterial infections were observed in 89% of patients. During follow-up, four grafts were lost due to recurrent FSGS.
Conclusion: Our case series shows that long-term apheresis can be effective in a subset of patients with post-transplant FSGS, being well tolerated and achieving continued partial remission for multiple years.

OP285 TRANSPLANTECTOMY VERSUS NON-TRANSPLANTECTOMY AFTER FAILED KIDNEY TRANSPLANT. A SYSTEMATIC REVIEW AND META-ANALYSIS

Paschalis Gavriilidis[1], John O'callaghan[2], James Hunter[1], Tyrrel Fernando[1], Christopher Imray[2], Debabrata Roy[2]

[1]Vascular Access and Renal Transplantation, University Hospital Coventry & Warwickshire, Coventry, United Kingdom; [2]Vascular Access and Renal Transplantation, University Hospitals Coventry and Warwickshire Neurology, Coventry, United Kingdom

Background: There is limited evidence regarding the impact of allograft nephrectomy (AN) on the long-term outcome of subsequent kidney re-transplantation compared to no prior allograft nephrectomy. The aim of the present study was to conduct systematic review and meta-analysis. Primary outcomes were 5-year graft and patient survival
Methods: Cochrane library, scholar Google, Pubmed, Medline and Embase were systematically searched.
Results: Sixteen studies were included, with a total of 2256 patients. All included studies were retrospective and comparative. There was no significant difference in 5- year graft survival (GS) [Hazard Ratio (HR) = 1.11, 95% Confidence Intervals (CI): 0.89, 1.38, p = 0.37, I^2 = 10%) or in 5-year patient survival (PS) (HR = 0.70, 95%CI: 0.45, 1.10, p = 0.12, I^2 = 0%]. Patients in the AN cohort were significantly younger than patients in the