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O12 A SINGLE INFUSION OF THIRD-PARTY MENSENCYMAL STROMAL CELLS AT DAY 3 AFTER LIVER TRANSPLANTATION IS NOT SUFFICIENT TO INDUCE OPERATIVE TOLERANCE

O. Detry1, M. Vandermeulen2, M.H. Delbovillle2, J. Sonjia, N. Bletard3, A. Brique3, C. Lechanteur4, O. Giel6, E. Baudoux5, M. Hannoni, F. Baron9, Y. Beguin7
1Service d’Anatomopathologie; 2Service de Chirurgie & Transplantation; 3Service d’Hématologie, CHU Liege, Liege, Belgium

Introduction: Mesenchymal stromal cell (MSC) infusion could be a mean to establish donor-specific immunological tolerance in solid organ recipients. The aim of this phase 2 study was test the hypothesis of possible induction of operative tolerance by third-party MSC in liver transplant (LT) recipients.

Methods: 10 stable and low-risk LT recipients under standard immunosuppression (Tac-MMF- low dose steroids) received 1.5×10^6/kg third-party MSCs on post-operative day 3 ± 2. By protocol, progressive weaning of immunosuppression was attempted in patients who did not develop rejection and had normal graft function and month-6 graft biopsy. Tacrolimus was progressively tapered from day 180 to be discontinued by day 270. After day-270 graft biopsy, MMF was progressively tapered and definitely discontinued by day 365 in the absence of rejection.

Results: One patient from the MSC group was excluded from immunosuppression withdrawal attempt due to HCC recurrence, and the 9 others met the criteria for immunosuppression withdrawal attempt as planned. No graft was lost due to the withdrawal attempt. In two patients, MMF monotherapy was achieved at month 9, but graft rejection occurred during MMF withdrawal and was treated by day-365 in the absence of rejection.

Conclusion: A single post transplant MSC injection is not sufficient to induce operative tolerance after LT.

O13 OUTCOME OF TRANSPLANTED KIDNEYS FROM EXTENDED CRITERIA DONORS PRESERVED ON PERFUSION MACHINES

M. Assem, F. Provo3, D. Bertrand3, P.F. Westeel, H. Mazouz1, C. Poulain1, M. Jauregy1, F. Sainti, D. Guerrero7, M. Hazzan4, G. Choukroun1
1Service de Néphrologie et de Transplantation; 2Service d’Urologie, CHU Amiens, Amiens; 3Service de Néphrologie et de Transplantation, CHU Lille, Lille; 4Service de Néphrologie et de Transplantation, CHU Rouen, Rouen, France

Introduction: Transplantation of kidneys from expanded criteria donors (ECD) has increased in the past years because of the shortage of grafts. Two methods of preservation are available, static cold storage method (PS) or hypothermic machine perfusion (MP). The aim of our study was to compare outcomes of the transplantation depending on the mode of graft preservation.

Methodology: Our study includes all kidney transplantations performed from ECD between 2010 and 2014 in Amiens, Lille and Rouen. Patients were followed until 01/01/2016. We analyzed graft and patient survival, slow recovery (SGF) and delayed renal function (DFG) and changes in glomerular filtration rate (GFR).

Results: Two hundred and ninety-two grafts were on CS and 150 were connected to MP. The use of an MP was independently associated with a decreased risk of occurrence of SGF (OR = 0.28 (0.15-0.53), p < 0.01) or DFG (OR = 0.39 (0.24 to 0.65), p < 0.01). GFR was higher at the end of hospitalization for transplantation and at 1 and 3 months after transplantation (37.0 ± 20.0, 42.4 ± 20.9 and 45.3 ± 22.1 mL/min/1.73 m² vs 29.1 ± 17.8, 36.9 ± 20 and 40.9 ± 20.4 mL/min/1.73 m² (p < 0.05) in the MP group. Hospitalization duration was reduced by an average of 4 days in transplant patients from MP (p < 0.01). We observed an increase in the rate of graft artery stenosis in the PS group (10.3 vs 1.3%, p < 0.01) and a non-significant trend to an improved graft survival at 1 year in the MP group (86.7 % vs 83.2 %, p = NS).

Conclusion: The use of perfusion machines for kidneys grafts from ECD can limit the technical risks. In patients with very low graft function, this may explain the decreased risk in delayed recovery of graft function and the shorter duration of initial hospitalization. It could also have a beneficial effect on the risk of transplant renal artery stenosis.