

The 1 year patient and graft survival were 100% and 81.5% respectively. The mean creatinine at 1 year was 134 $\mu\text{mol/l}$. For the same cohort of patients the mean follow up was 59 months (range 19–120) and the patient and graft survival were 97% and 75% respectively. The mean creatinine at 59 months was 162 $\mu\text{mol/l}$.

Discussion: Our results confirm that a 3rd kidney transplant is a valid therapeutic option with very satisfactory short and long term outcomes.

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INCIDENCE, RISK FACTORS AND IMPACT ON LONG-TERM OUTCOMES OF LYMPHOCELES IN KIDNEY TRANSPLANTATION

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Introduction: Despite preventive methods, lymphoceles (Lc) are common complications after kidney transplantation in about a third of patients (pts).

Methods: In this retrospective single center study 873 adult pts, who received cadaveric or living donor kidneys from 2006–2015, were included. All pts with diagnosis of Lc and necessity of intervention were identified and analyzed.

Results: 307 (35%) pts with lymphoceles were identified with a median time of diagnosis of 29 days (IQR 19–51) post-transplant. 72 (8%) patients needed intervention, which was performed 22 days (median, IQR 8–55) after diagnosis. Incidence of Lc formation and time of intervention are shown in figure 1a. 81.9% of the interventions were laparoscopic fenestrations. The remainder received a drainage (13.9%) or open surgery (4.2%).

In our cohort, Lc was significantly associated with old age, long cold ischemia time, deceased donors, T-cell mediated rejections ≤ 30 days after tx (TCMR30), DGF and the donor risk factor bundles KDPI/living KDPI in the univariate logistic regression model. Multivariate analysis, adjusted for all relevant factors, revealed living donation as protective factor (OR 0.54, $p < 0.001$) and TCMR30 as independent risk factor (OR 1.61, $p = 0.001$) for lymphocele formation.

Comparison of patients with conservatively treated lymphoceles versus lymphoceles with interventions versus controls revealed no difference in death censored graft survival (74.5% vs. 85.5% vs. 75.7%, figure 1b) or patient survival (67.8% vs 72.5% vs. 67.1%, figure 1c) over 10 years. An adjusted multivariate analysis confirmed that lymphocele interventions did not increase the risk for premature graft loss (HR 0.57, $p = 0.126$).

Conclusion: Lymphoceles occur frequently after transplantation, the majority within the first 50 days post-transplant and are independently linked with early T-cell mediated rejections. Development or intervention of lymphoceles did not lead to poorer graft survival.

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IS THE VARIABILITY OF RENAL ARTERIAL RESISTANCE INDEX MEASUREMENTS USEFUL PARAMETER OF LATE GRAFT FUNCTION AFTER RENAL TRANSPLANTATION?

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Background: The influence of RI after renal transplantation on its predictive power has not been sufficiently evaluated. We performed retrospective analysis of RI and its power to predict renal allograft failure or death with special emphasis on the time point and the variability of RI measurements.

Methods: RI measurements were obtained from 107 transplanted patients on POD 1 and POD 7 from January 2000 to November 2013. All patients with RI measurements were retrospectively stratified into three groups according to the

RI value; Group 1: index of < 0.70 ($n = 73$ (68.2%) on POD 1 and $n = 82$ (76.6%) on POD 7), Group 2: index between 0.70 and 0.85 ($n = 30$ (28.0%) on POD 1 and $n = 22$ (20.6%) on POD 7), and Group 3: index of ≥ 0.85 ($n = 4$ (3.7%) on POD 1 and $n = 3$ (2.8%) on POD 7). The graft function of kidney was estimated.

Results: RI at POD 7 showed a significant predictive value for renal transplant failure or death in a univariate approach [$p = 0.0001$]. Patients with the Group 3 on POD 7 showed the highest incidence of DGF [$p = 0.0001$], eGFR [median value = 17.00, $p = 0.004$] and s-Cr [median value = 5.20, $p = 0.0001$], among three groups. The analysis of the change in RI value showed that the increased RI index between POD 1 and POD 7 was significant for a dismal outcome; DGF [$p = 0.0001$]. Survival analysis of each three group on POD 7 was as in the following: acute rejection episodes: 4.1% ($n = 3$) in Group 1, 13.3% ($n = 4$) in Group 2, 25% ($n = 1$) in Group 3 and incidence of DGF: 1.3% ($n = 1$) in Group 1, 6.6% ($n = 2$) in Group 2, 100% ($n = 4$) in Group 3 and during follow up period 13 graft losses occurred in patients.

Conclusion: RI measurements on 7 days after transplantation appeared useful to predict allograft outcomes. Sequential renal duplex ultrasonography can be useful for identifying high risk group for subsequent development of graft failure.

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THE IMPACT ON KIDNEY FUNCTION OF THE RENAL RESISTIVE INDEX IN THE IMMEDIATE POSTOPERATIVE PERIOD AFTER KIDNEY TRANSPLANTATION: A COHORT ANALYSIS

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Background: The renal resistive index (RI) is in our hospital routinely used for the clinical monitoring of the transplanted patients in the very early postoperative period. It is a non-invasive method that allows us to detect microvascular changes in intrarenal arterial blood flow. The aim of this study was to determine whether the RI measured in the immediate post-transplant phase during ICU admission can be used to predict short-term graft function.

Methods/Materials: We performed a retrospective study in one tertiary care academic center. We included kidney transplant recipients who were transplanted between 2005 and 2014 and who had RI measured by Doppler ultrasonography within the first 2 days after kidney transplantation. Short-term outcome (measured up to 10 days) was studied by 22 different definitions of delayed graft function (DGF). Donor, recipient and outcome variables were retrospectively retrieved from the electronic hospital database, the laboratory database, DICOM images, the database on intensive care (Adaptive Server Enterprise), the database of our Transplantation Center, the Eurotransplant database and local databases of peripheral hospitals.

Results: We included 446 recipients, of which 279 (62.6%) were male, with a median age of 55 years (IQR 46–63). Median cold and warm ischemia time were respectively 13.6 hours (IQR 10.5–16.7) and 20.0 minutes (IQR 17.0–24.0). Median RI was 0.62 (IQR 0.55–0.70). Depending on the definition used, DGF was present in 4.4–41.7% of recipients. We found that for most of the DGF definitions studied, RI was higher in patients who had DGF.

Conclusion: DGF was associated with an increased RI already within the first 2 days after kidney transplantation.

Figure 1

