"L-Tag", a protein that inactivates nuclear tumor suppressor proteins (e.g. p53 and pRb) and plays a role in BKV replication.

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Neutrophil gelatinase-associated lipocalin, but not kidney injury marker-1, correlates with duration of delayed graft function

E.K. van den Akker[a], D.A. Hesselink[b], O.C. Manintveld[c], J.N.M. IJzermans[a], R.W.F. de Bruin[a], F.J.M.F. Dor[a]

[a]*Department of Surgery, Division of Transplant Surgery, Erasmus MC, University Medical Center Rotterdam, Netherlands*
[b]*Department of Internal Medicine, Division of Nephrology and Renal Transplantation, Erasmus MC, University Medical Center Rotterdam, Netherlands*
[c]*Department of Cardiology, Heart Transplant Unit, Erasmus MC, University Medical Center Rotterdam, Netherlands*

Background: In kidney transplantation, no specific early biomarker is available for evaluating kidney damage. Both neutrophil gelatinase-associated lipocalin (NGAL) and kidney injury marker-1 (KIM-1) have been shown to increase after oxidative kidney injury. In this study, we evaluated their role as potential biomarkers for delayed graft function (DGF).
Patients/methods: Twenty recipients of a donation-after-circulatory death (DCD) kidney transplantation were included. Recipient serum creatinine, eGFR, C-reactive protein, as well as the incidence and duration of DGF were monitored. Graft perfusate was collected at the end of cold ischemia time. Serum samples were collected before transplantation, at the end of surgery, and 1, 4 and 7 days after transplantation. NGAL and KIM-1 were measured by ELISA.
Results: Seventeen of the 20 patients experienced DGF (85%). NGAL in perfusate correlated with donor age ($r2 = 0.094$, $p = 0.01$) and donor serum creatinine ($r2 = 0.243$, $p = 0.05$), both known risk factors for DGF. Perfusate NGAL levels were higher when kidneys came from donors with a cardiac cause of death (77.4 ± 22.5 ng/ml versus 41.9 ± 29.4 ng/ml, $p = 0.04$). Serum NGAL levels at day one post-transplantation were significantly higher in patients with DGF compared with patients with immediate graft function (IGF) (730 ng/ml [490–1655] vs. 417 ng/ml [232–481]; $p = 0.01$), whereas this was not seen at the other time points. Serum NGAL at 1, 4 and 7 days post-transplantation correlated with the duration of DGF. No associations between NGAL and other serum markers were observed. KIM-1 was not detectable in the perfusate and serum until day 4 after transplantation in most cases (80%). No associations between KIM-1 levels and DGF were observed.
Conclusions: NGAL is detectable in perfusate and correlates with known risk factors for DGF. Serum NGAL levels at day one can discriminate between DGF and IGF. Furthermore, serum levels at day 1, but also day 4 and day 7 correlate with the duration of DGF. Serum NGAL appears to be a valuable biomarker for (the duration of) DGF. Furthermore, NGAL levels in perfusate may reflect graft quality. More studies are needed to determine the clinical potential for this biomarker. No role for early serum KIM-1 levels could be found.

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Ten years anniversary of the Dutch kidney exchange program

M. de Klerk[a,b], M.G.H. Betjes[a], Bernadette J.J.M. Haase-Kromwijk[b], Frans H.J. Claas[c], Willem Weimar[a,b],
on behalf of the 8 Kidney Transplant Centers, Dutch Transplant Foundation and National Reference Laboratory for Histocompatibility

[a]*Dept. of Internal Medicine, Erasmus MC, Rotterdam, Netherlands*
[b]*Dutch Transplant Foundation, Leiden, Netherlands*
[c]*National Reference Laboratory for Histocompatibility, Dept. of Immunohematology and Blood Transfusion, Leiden University Medical Center, Netherlands*

The Dutch kidney exchange program is now active for 10 years. Within this program all eight kidney transplant centers are collaborating. Here we describe the outcome of all patients that were enrolled in our program. Methods: Data on registration, immunization, computerized matching, cross matching, and transplantations within or outside the program were collected. Results: From January 2004 till December 2013 612 pairs were registered. The median input of new pairs per year was 62 (49–74). In total after 10 years 38% of the participants received a kidney within an exchange procedure, 39% of the recipients were transplanted outside the program (95 with an alternative living donor, 65 with a deceased donor and 79 in a domino-paired procedure), 14% of the couples were delisted and 9% are still waiting. Over the years we noticed a shift towards more registered patients transplanted outside the program due to increasing rates of ABO incompatible and domino-paired procedures. We observed a difference in the immunization rate between patients transplanted within or outside the program: 56% (130/231) patients transplanted within the program were immunized (PRA > 5%) compared to 38% (92/239) patients transplanted outside the program. Conclusion: In the 10 years of our kidney exchange program 470/612 (77%) of the participating recipients were actually transplanted. Approximately half of them (231/470, 49%) received a kidney within the exchange program of which 56% were immunized patients. The exchange program is highly successful especially for immunized patients.

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Injury to peribiliary glands and vascular plexus before liver transplantation predicts formation of non-anastomotic biliary strictures

S. op den Dries[a,b], A.C. Westerkamp[a], N. Karimian[a], A.S.H. Gouw[c], B.G. Bruinsma[d], J.F. Markmann[b], T. Lisman[a], H. Yeh[b], K. Uygun[d], P.N. Martins[b,1], R.J. Porte[a,1]

[a]*Section of Hepatobiliary Surgery and Liver Transplantation, University of Groningen, UMCG, Netherlands*
[b]*Division of Transplantation, Massachusetts General Hospital, Harvard Medical School, Boston, United States*
[c]*Department of Pathology, University of Groningen, UMCG, Netherlands*
[d]*Center for Engineering in Medicine, MGH, Harvard Medical School, Boston, United States*
[1]Contributed equally.

The peribiliary glands of large bile ducts have been identified as a niche of progenitor cells that contribute to regeneration of biliary epithelium after injury. It is unknown whether injury to the peribiliary glands is a risk factor for the development of non-anastomotic biliary strictures (NAS) after liver transplantation. Moreover, it is unknown whether pretransplant biliary injury is different in livers donated after brain death (DBD) or cardiac death (DCD). In 128 liver transplant procedures, biopsies were taken from the distal common bile duct and injury was assessed using a systematic histological grading system. Histological injury in relation to posttransplant biliary strictures was studied and compared between DBD ($n = 97$) and DCD livers ($n = 29$). Luminal biliary epithelial loss >50% was observed in 91.8% of the grafts before transplantation, yet NAS occurred in only 16.4%. Periluminal peribiliary glands were more severely injured than the deep peribiliary glands located near the fibromuscular layer (>50% loss in 56.9% versus