A new abstract has been submitted for the upcoming Annual Meeting:

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Topic:

Kidney & Pancreas

Abstract titel:

The evolution and impact of ABMR histology and transplant glomerulopathy in the presence or absence of HLA-DSA

Abstract body:

Objective: We investigated the occurrence and impact of ABMRh (=histological picture of antibody-mediated rejection) and ABMRh/transplant glomerulopathy (cg) after kidney transplantation, in patients with and without HLA-DSA. Research Design and Methods: In this single-center cohort study, we included 1000 individual renal allograft recipients and 3583 biopsies obtained up to 5 years after transplantation. We studied the effect of presence of pre- and post-transplant HLA-DSA on the occurrence of post-transplant histological phenotypes and on graft survival using mixed and joint models. Results: Prior to transplantation, HLA-DSA were present in 108/1000 (10.8%) renal allograft recipients. These patients had a worse graft survival (HR 2.00, 95% CI, 1.27 – 3.16, p=0.003) and an increased risk of ABMRh (OR 26.06, 95% CI, 13.13 – 51.74, p<.001) and abmrh />cg (OR, 20.90, 95% CI, 11.28 – 38.75, p<.001). when jointly modelling the longitudinal evolution of abmrh and />cg with the survival model for graft failure, the hazardous effect of pre-transplant DSA disappeared, indicating mediation by the occurrence of both phenotypes. When taking into account the time-dependent nature of DSA (including resolution and de novo occurrence), the effect of ABMRh lost its significance, while ABMRh/cg (HR 1.22, 95% CI, 1.06 – 1.41, p=0.004) remained independently associated with graft survival. Also in patients without HLA-DSA, ABMRh/cg increased the risk for graft failure (HR 1.31, 95% CI, 1.07 – 1.62, p=0.008). Conclusion: The effect of HLA-DSA on impaired graft survival is largely mediated through ABMRh and ABMRh/cg. In the absence of HLA-DSA, ABMRh/cg is also associated with an increased risk of graft failure.