

5th Global Nephrologists Annual Meeting

March 31-April 02, 2016 Valencia, Spain

ARN – anticoagulant related nephropathy: Lessons from patients and experimental animals

Sergey V Brodsky

The Ohio State University, USA

We have recently identified a new clinical syndrome in patients receiving warfarin for anticoagulation. This syndrome has been named warfarin-related nephropathy (WRN) and patients with Chronic Kidney Disease (CKD) appear to be particularly susceptible. WRN is defined as an acute increase in INR to greater than 3.0, followed by evidence of Acute Kidney Injury (AKI) within a week of the INR increase, defined as a sustained increase in serum creatinine of greater than or equal to 0.3 mg/dl. The AKI cannot be explained by any other factors and the kidney biopsy demonstrates extensive glomerular hemorrhage with tubular obstruction by red blood cells. Beyond AKI, WRN is a significant risk factor for mortality within the first two months of diagnosis and it accelerates the progression of CKD. CKD is the most important risk factor for WRN and in CKD patients on warfarin who experience an increase in INR to >3.0, WRN is seen in 33–37% of the patients. Recent evidences suggest that WRN-like syndromes are not confined to anti-coagulation with warfarin, but may be seen with the newer oral anticoagulants coming into clinical use. We have thus coined the term Anticoagulant-Related Nephropathy (ARN) to encompass the possibility that other anticoagulant drugs may put patients at risk. We developed an animal model to study ARN. 5/6 nephrectomy rats treated with warfarin or dabigatran showed increase in serum creatinine and morphology in the kidney similar to humans. Nephrologists and renal pathologists should be aware about this serious complication of anti-coagulation therapy.

Sergey.Brodsky@osumc.edu

ABO-incompatible living donor kidney transplantation: The Stockholm experience

Helena Genberg

Karolinska University Hospital, Sweden

ABO-Incompatible (ABOi) Living Donor (LD) kidney transplantation has gained widespread popularity over the past 15 years. Worldwide over 3000 ABOi LD kidney transplantations have been reported. In Stockholm a protocol for ABOi transplantation was introduced in 2001 based on antigen-specific immunoadsorption for the anti-A/B antibody removal and rituximab to prevent antibody rebound. Since then some 100 ABOi transplantations have been performed there. The results of these transplantations have been evaluated in several studies and shown to be comparable with ABO-compatible LD kidney transplantation short-term. Similar results have also been reported from other centers. However, there are reports of inferior graft survival long-term following ABOi LD kidney transplantation when compared with ABO-compatible (ABOc) LD kidney transplantation. Yet, for the ABOi LD kidney recipients, an ABOc living donor is rarely available. The alternative to dialysis or ABOi transplantation is instead to enter the waiting list to possibly receive a deceased donor ABOc organ. In a recent study we compared the long-term results of ABOi LD kidney transplantation with wait listing. In this study the 10-year patient survival was 93% for the ABOi kidney recipients, 86% for the ABOc LD kidney recipients and 74% for patients entering the waiting list, p (overall)=0.000. In conclusion, we argue that, for patients in the need of a kidney transplant, ABOi LD kidney transplantation is safe and a superior alternative to deceased donor wait listing.

helena.genberg@karolinska.se