Asian Transplantation Week 2023

Nov. 15(Wed)~18(Sat), 2023
Conrad Seoul, Korea

Submission No.: CS08-04
Session : Concurrent Symposium 8 (Kidney/Pancreas)
Date & Time, Place : November 18 (Sat), 09:00-10:30, Room 5F-1
Session Title : Update in ABO-incompatible kidney transplantation

How to measure anti-ABO antibodies

Lori Jeanne West
University of Alberta, Canada

Currently, the century-old erythrocyte agglutination assay is used globally to measure the level or titre of ABO antibodies. This assay lacks specificity and sensitivity and may underestimate the antibody-mediated rejection risk for some donor-recipient pairs while simultaneously overestimating the risk for others, thereby unnecessarily excluding candidates from eligibility for ABOi transplantation. To provide accurate ABO-incompatible risk assessment, we recently developed a much more sophisticated assay for ABO antibody characterization using single-antigen beads and Luminex technology. Coupling individual beads to A, B and H glycan subtypes I-VI to create a Luminex panel allows precise measurement of subtype-specific anti-A and anti-B antibodies of IgG and IgM (and IgA) isotypes. This talk will address our new Luminex bead-based ABO antibody detection tool for ABO-incompatible transplant risk assessment using samples obtained from various sources (ie, from healthy individuals and from ABO-incompatible kidney patients pre- and post-transplant). New knowledge generated from these studies will ultimately lead to more precise risk assessment for ABOi transplantation. Understanding when ABO-incompatible transplantation is reliably low risk would allow more patients on the waitlist to be offered a transplant, including the increasingly challenging populations of highly HLA-sensitized patients for whom a low-risk ABO-incompatible transplant would be lifesaving.