



Submission No.: PG09-9297

Session : Postgraduate Course 9 (Laboratory)

Date & Time, Place : November 16 (Thu), 13:00-14:30, Room 6F-2

Session Title : Transplant Immunology: Practical issues in HLA Eplets and Desensitization Monitoring

Clinical Application of HLA Eplet Analysis

Hyeyoung Lee

Catholic Kwandong University International St. Mary's Hospital, Republic of Korea

Eplet mismatches are a way to measure and describe the differences between the human leukocyte antigen (HLA) molecules of a donor and a recipient in transplantation. Eplet mismatches provide a more detailed and precise assessment of HLA compatibility between the donor and recipient. By analyzing the eplet differences, transplant teams can aim for a more accurate match at the molecular level, thereby reducing the risk of immune responses and improving transplant outcomes. Eplet mismatches can help predict the risk of alloimmune responses following transplantation. Certain eplets are associated with a higher likelihood of eliciting an immune response. Understanding these associations allows for better risk assessment and management of post-transplant complications, such as rejection. Knowledge of eplet mismatches can guide the choice and dosing of immunosuppressive medications post-transplant. A higher number of eplet mismatches might necessitate more aggressive immunosuppression to dampen the immune response and reduce the risk of rejection. However, the level of evidence of antibody-verified eplets is heterogeneous and that not all data have been published in peer-reviewed journals. Due to limitations in imputation, high-resolution HLA typing is necessary. In conclusion, achieving a more precise match at the eplet level can lead to improved graft survival and enhanced quality of life for transplant recipients.

