

## COMPARISON OF C1q BINDING AND FLOW CYTOMETRIC CROSSMATCH RESULTS PROVIDES AN ACCURATE EVALUATION OF HIGH RISK, HYPERSENSITIVE KIDNEY TRANSPLANT PATIENTS

EMEL EKŞİOĞLU-DEMİRALP, MD, PHD<sup>1</sup>, SERPİL GÖRÇİN, MD<sup>2</sup>, ONUR ELBAŞI, PhD<sup>1</sup>, AYDIN TÜRKMEN, MD<sup>3</sup>

<sup>1</sup>TISSUE TYPING AND IMMUNOLOGY LABORATORY; <sup>2</sup>MEMORIAL SISLI AND <sup>3</sup>HIZMET HOSPITALS' TRANSPLANTATION UNITS, MEMORIAL HEALTH GROUP, ISTANBUL, TÜRKİYE

Measurement of C1q binding to Donor specific antibodies (DSA) provides transplantation chance to hypersensitive patients having non-DSA antibodies. In our series of 409 patients, having either Class I and/or Class II anti-HLA antibody positivity, could have been transplanted by testing of C1q binding. To test reciprocity of crossmatch and C1q binding, we compared MFIs of C1q binding of anti HLA antibodies and flow cytometric cross match in 276 hypersensitive and high-risk 'patients. All patients have at least one class of PRA positivity measured by single antigen beads (Sab). MFI value is greater than 1000 for donor specific antibodies (DSA) and 5000 for non DSA positivity were cut off values for testing C1q. All sera were pre-treated with DTT and EDTA. B and T cell crossmatch MFI values were found to be correlated to MFI value of C1q binding in general( CC: 0,28 for B cells and CC: 0,38 for T cells;  $p=0.01$ ). Those correlations were found to be stronger when DSA binding C1q values were compared (CC: 0,4 ( $p=0.01$ ) for B cell; CC: 0,59 ( $p=0.001$ ) for T cells). In comparison to PRA positivity of B and T cell cross matches, a weaker correlation was found [(CC: 1,12 ( $p=0.01$ ) for B cell and CC:0,22 ( $p=0.01$ ) for T cell]. We conclude that, comparative evaluation of both flow cytometric cross match results and C1q MFI values provides double check in the immunological assesment of hypersensitive patients. Therefore, more accurate donor selection would be possible in the high risk patient groups.