

**Abstract# A134**

**Antibody Mediated Rejection(AMR) in the Absence of Donor Specific Antibody(DSA) in HLA Sensitized Kidney Transplant Recipients. A.**

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**BACKGROUND:** As desensitization has become more widely implemented, the need to better classify AMR has become clear. The summary from the 12th Banff Conference on Transplant Pathology included a proposed AMR Classification. For all AMR subclasses, serologic evidence of DSA (HLA or non-HLA) is required. We present a group of HLA sensitized patients with features of AMR but no recognized DSA at time of biopsy.

**METHODS:** From Jan 2005 to the present, 108 kidney transplant recipients were treated for AMR. We eliminated 26 who were not previously sensitized, 12 who had an ABO-I, 2 who had SPKs, and 12 who were treated empirically. We evaluated the remaining 56 patients for presence of DSA, including historical DSA, creatinine (cr), proteinuria, and graft survival. We compared DSA+ and DSA- AMR patients.

**RESULTS:** Of 56 patients, 6 were identified with no evidence of HLA DSA at the time of biopsy proven AMR. All but one had historical HLA DSA, but none of the six had HLA DSA at the time of AMR diagnosis or thereafter. The cr at 1 and 3 yrs was 1.54 and 2 mg/dl respectively. At present 83% are functioning. Five of 6 had proteinuria at the time of diagnosis, with 60% ongoing. Of the 50 patients with DSA+ AMR, 68% still have a functioning graft. The cr at 1 and 3 yrs was 1.8 and 1.6 mg/dl. Forty percent of the DSA+ AMR patients had significant proteinuria at diagnosis. Sixteen of the 40 patients with a recent urinalysis (40%) have ongoing proteinuria. Seven patients (14%) had resolution of DSA with treatment.

**CONCLUSION:** The current histologic diagnosis of AMR requires the presence of DSA. In our HLA sensitized patients, we found 11% without identified DSA at the time of biopsy or thereafter. Most had historical DSA. One had no current or historical HLA DSA, AT1R antibody, or evidence of anti-endothelial cell antibody despite apparent AMR on biopsy. Such patients are presumed to have non-HLA DSA yet be identified. No difference in outcomes between the DSA+ and DSA- groups was found. These results highlight the role of non-HLA DSA and the importance of considering a diagnosis of AMR even in the absence of known DSA.

**DISCLOSURES:** Jordan, S.: Grant/Research Support, CSL Behring.