

Post-transplant BAFF Level do not Predict the Development Anti-HLA Antibody in Kidney Transplant Recipients

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It is well known that pre-transplant B cell activating factor (BAFF) level is associated with the development of de novo anti-HLA antibody and also antibody mediated rejection post-transplant. However, the clinical significance of BAFF value at allograft rejection has not been determined. In this study, we investigated the clinical significance of BAFF level measured when indication biopsy was done. In 79 kidney transplant recipients who required allograft biopsy due to serum creatinine elevation, we checked anti-HLA antibody using luminex single antigen assay, and also measured BAFF level using the same serum specimen. We investigated the relationship between BAFF level and the occurrence of anti-HLA antibody. We did not find any association between serum BAFF levels and positive anti-HLA antibody (150.0±24.9 vs. 168.7±30.0 ng/mL in anti-HLA antibody-negative, p=0.852) or positive donor-specific antibody (204±67.1 vs. 155.3±20.3 ng/mL in DSA negative, p=0.448). The strength of anti-HLA antibody did not show significant association to BAFF level as well. We divided patients into three groups according to results of biopsy; the T-cell mediated rejection (TCMR) group, antibody mediated rejection (AMR) group, and non-rejection group. No significant difference in post-transplantation serum BAFF was observed between patients with TCMR or AMR or no rejection (169.70±47.7 vs. 169.1±37.7 vs. 154.4±24.1 respectively, p=0.439). In conclusion, serum BAFF level did not show significant association with the development of anti-HLA antibody or the strength of the antibody level and also it did not differentiate antibody mediated allograft rejection from other pathologic diagnosis.

Key Words: B cell activating factor, Anti-HLA antibody, Acute rejection