P1795ASSOCIATION BETWEEN T CELL INFILTRATION IN BIOPSY PROVEN ACUTE T CELL MEDIATED REJECTION AND RESPONSE TO THERAPY

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P1795 **ASSOCIATION BETWEEN T CELL INFILTRATION IN BIOPSY PROVEN ACUTE T CELL MEDIATED REJECTION AND RESPONSE TO THERAPY**

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Background and Aims: Renal transplantation is considered as the best replacement therapy for advanced ESRD patients. An allograft rejection happens as a result of post transplant immune reactions, which change the outcome of the organ transplantation. Today a major challenge in the field of transplantation is the identification of easy, reliable and non-invasive markers or methods that being able to predict the probability of organ rejection. One of the possible methods is looking for type of infiltrated cells in tissue obtaining by biopsy stained with specific cellular markers and assesses the infiltration of these cells in different types of rejection. Here the severity of CD3, CD20, Th17 and FOXP3 infiltration in patients with biopsy proven acute cellular rejection was evaluated based on IHC staining, whether these specific infiltrations can show an association with graft outcome or not.

Method: 50 patients with biopsy proven Acute T Cell Mediated Rejection (ATCMR) recruited. Previous clinical data and 1 year clinical follow up collected. The entire specimen assessed for infiltration of CD3, CD20, FOXP3 Tregs and Th17 with IHC. Patients divided into subgroups: stable graft function versus impaired graft function based on serum creatinine course in one year follow up after rejection therapy and appropriate response to treatment versus failure to response, based on allograft function throughout the course of admission.

Results: In impaired graft function arm, FOXP3 (7.88 vs. 8.02 with P-value 0.96) and Th17 cells were higher (5.01 vs. 10.2 with P-value 0.24) but with non-significant values. FOXP3/Th17 ratio was higher in stable group (1.4 vs. 1.12 with P-value 0.22). In failure to response to therapy group both FOXP3 (9.95 vs. 6.63 with P-value 0.1) and Th17 (11.3 vs. 8.3 with P-value 0.15) cells were higher. FOXP3/Th17 ratio was higher in proper response group (1.19 vs. 1.15 with P-value 0.8). No significant difference was obtained between CD3 and CD20 infiltration in these two groups.

Conclusion: Final results showed that Th17 has more important role in predicting the graft outcome and response to treatment and FOXP3 infiltration had a minor part. This may be in controversial with previous facts about the role of FOXP3 cells, which drive the allograft into stable condition.

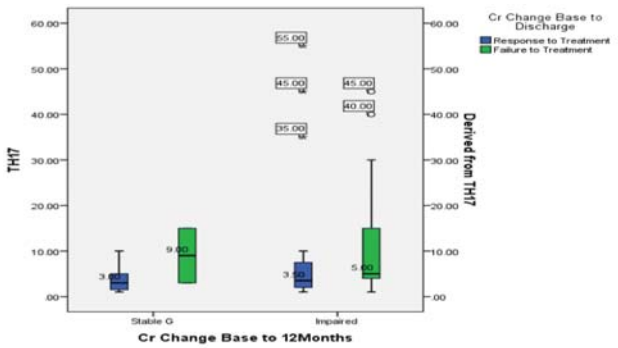

Figure 2. Th17 comparison in all groups. Mean value is higher in failure response to treatment in stable and impaired functions. Patients with stable and appropriate response had lowest values.

Figure: