

Best Posters – 3rd Prize:

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ABSTRACT TITLE:

Influence of simvastatin on angiogenesis and interstitial fibrosis in renal allografts that were under simvastatin therapy pre and post transplantation for the treatment of sensitization

ABSTRACT TEXT:

Objective: We aimed to show the influence of Simvastatin therapy on renal allografts.

Method: Development of interstitial fibrosis (IF) in renal allografts was compared between study group (Group 1, patients under Simvastatin therapy, n: 30 cases) and control group (Group 2, n: 32 cases). CD34 (microvessel density, MVD), CD68 and VEGF were stained on 1st year biopsies of all cases.

Results: The rate of acute rejection (AR) was very low in Group 1 cases compared to group 2 cases ($p < 0.001$). Group 1 patient's showed lower incidence of IF development when compared to Group 2 patients ($p < 0.01$). MVD was found significantly higher in Group 2 (114 ± 9.3) than Group 1 (79 ± 4.4) renal allografts ($p = 0.001$). In addition the expression of tubular VEGF in Group 2 was found higher than Group 1 cases ($p < 0.01$). A significant positive relationship was found between IF and MVD ($p < 0.001$). The overall 1-, 2- and 3- year graft survival rates for Group 1 were 96%, 96% and 93% respectively. The corresponding graft survival rates were 90%, 72% and 72% for group 2 recipients. Significant difference was noted ($p < 0.05$).

Conclusion: Simvastatin treated patients showed lower incidence of AR, IF and graft loss. The possible reason of this may be explained by the immunosuppressive and anti-angiogenic effect of Simvastatin.