

# CYTOMEGALOVIRUS DISEASE AFTER RENAL TRANSPLANTATION

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According to the current guidelines prophylactic treatment for Cytomegalovirus (CMV) is recommended in solid organ transplantation.

We were interested to explore the prevalence of CMV viremia/disease due to use of prophylactic treatment in our renal transplant recipients (RTRs).

On the pretransplant CMV antibody assay, prophylaxis for CMV disease is performed for the following donor/recipient subgroups: Donor (D)+ and Recipient (R)+, D+/ R- and D-/R+. The dose of valganciclovir was adjusted according to renal function.

We retrospectively examined the 24-year (1990-2014) data of 521 RTRs mean age  $48.9 \pm 13.6$  years.

**METHODS**

## **RESULTS**

95 RTRs were received prophylaxis for CMV and 426 patients didn't received prophylactic treatment. Prophylactic treatment significantly reduced the incidence of CMV disease during the first-year after transplantation (8.45% vs. 2.1%;  $p=0.05$ ). Although the prevalence of CMV viremia was higher in the group of patients that didn't received prophylaxis, that difference was not statistically significant (9.6% vs. 3.2%;  $p=0.07$ ). The mean values of serum creatinine didn't showed any significant differences after one-year of follow-up between the RTRs who had received prophylaxis in comparison to the patients that didn't received prophylactic treatment ( $127.7 \pm 65.2$  vs.  $145.1 \pm 87$ ;  $p=0.09$ ). In the group of patients that didn't received prophylactic treatment 15.5% of patients loss their graft during the first year after transplantation, while in the group of patients with prophylactic treatment 6.3% of RTRs loss their graft in the same period. In the group of patients that had received prophylaxis the main reasons for graft loss were an acute rejection (6.1%) and surgical complications (4.9%), while surgical complications (3.2%) and chronic allograft nephropathy (2.1%) were the most common reasons for graft loss in the second group of RTRs. There were no significant differences in the one-year patients survival between the two groups of patients ( $p=NS$ ).

## **CONCLUSION**

Prophylactic treatment for CMV is an effective way to prevent CMV disease after renal transplantation.