Post-kidney transplant CMV infection graft and patient outcome: 4 years follow-up, single centre experience.

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Introduction: In spite of antiviral prophylaxis, CMV infection is a common viral complication after kidney transplantation. Our objectives were to measure the impact of CMV viremia on graft and patient survival as primary endpoints and the rate of acute rejection, post-transplant lymphoproliferative disease (PTLD), post-transplant diabetes mellitus (PTDM), transplant renal artery stenosis (TRAS), and skin cancer as secondary endpoints.

Methods: A retrospective study of 395 kidney transplant done between April 2010 and March 2014.The cohort divided into CMV and non-CMV viremia group.

Results: Our rate of CMV viremia was 24%. No difference in biopsy proven PTLD among the two cohorts as it was 1% in each group. The rate of PTDM was similar (5%) in each group (p=.8035). Only 1% in CMV viremia group had TRAS versus 2.3% in non-CMV viremia group (p=.366). Biopsy proven acute rejection were higher in CMV viremia than non-CMV viremia group which were 13.7% and 11%, respectively (p=0.7211). More skin cancer cases in CMV viremia group 9.5% than those in non-CMV viremia cohort 4.4% (p=.0995). Overall graft survival was 83% (n=328/395) and death-censored graft survival (graft survival without death) among the cohort was 91.4%.Overall graft loss (including death) was 17% (n=76/395).Death-censored graft loss among CMV viremia cohort were 5.2% (n=5/95) and among non-CMV viremia were 10% (n=29/395) (p=.2132). All-cause mortality at four year were higher in CMV viremia than in non-CMV viremia group, which were 18% (n=17/95) and 9% (n=27/300), respectively (p=.0237).Patient survival at four year were 82% (n=78/95) in CMV viremia versus 91% (273/300) in non-CMV cohort.

Conclusion: patient and graft survival among the cohort were 88.8% and 83%, respectively. All-cause mortality was higher among the CMV viremia cohort (p=.0327) but not the graft loss (p=.2132).No statistical difference in rate of acute rejection, skin cancer, PTLD, PTDM, and TRAS among the two cohorts.