KSN 2020
FULLY VIRTUAL MEETING

Abstract Type : Oral
Abstract Submission No. : OR-1410

Long term outcomes of post-transplant infections in adult renal transplant recipients

Narayan Prasad, Ruju Gala, Amit Gupta
Department of Nephrology, Sanjay Gandhi Postgraduate Institute of Medical Sciences,Lucknow, India

Objectives:

Infections are a major cause of morbidity in the form of graft loss and mortality in RTR. A number of factors in pre and peri transplant period increase the susceptibility to PTI affecting the overall graft and patient survival.

Methods:

An observational study of 644 adult RTR (=>18yrs) between Jan 2010 and Dec 2015, followed till Jun 2019. Primary objective was to study epidemiology of risk factors of PTI. Secondary objective was to evaluate transplant outcomes.

Results:

PTI were seen in 83.1%, of which majority (64%) occurred in the first year. Of all infections, 55.5% were bacterial, 18.5% viral, 10.8% parasitic, 8% fungal, and remaining 7.1% mycobacterial. UTI (37.4%) was most common infection with E. Coli (18.9%) being the commonest cause. Relative risk with PTI for graft dysfunction was 4 times higher ($p<0.01$), graft loss was 3 times higher ($p<0.01$) and death was 3 times higher ($p=0.01$) as compared to non PTI. Recurrence of PTI had 2 times higher risk of graft dysfunction ($p<0.01$) and 3 times higher risk of graft loss ($p=0.00$). Overall, graft loss was 19.1% and the mortality rate was 12.1% of the study population. The relative risk of fungal infections to cause graft loss was 2 times higher as compared to other infections (95% CI 1.23-2.18, $p<0.003$). The relative risk of fungal infections to cause death was 2 times higher than other infections (95% CI 1.20-2.56, $p <0.008$). On multivariate analysis, the predictors of PTI were ATG induction ($P<0.01$), pre transplant Tuberculosis ($P=0.02$) and dialysis vintage ($P=0.02$). On KM survival analysis, graft and patient survival was inferior in PTI at 1,5and 9years; (graft: PTI 94.6%;81.7%;70.3% vs non PTI 98%; 92.2%; 90%, $p=0.004$, patient: PTI 97.9%;88.2%;81.9% vs non PTI 98.3%; 95.2%; 92.9%, $p=0.012$)

Conclusions: PTI have a significant impact on graft survival and patient survival in RTR.