# Evaluation of Graft Outcome in Renal Transplant Recipients over a 10 year period ranging from 2008-2018-A Retrospective Study

REVERTER (Retrospectively Evaluating dEterminants of gRaft ouTcomes in rEnal tRansplant)

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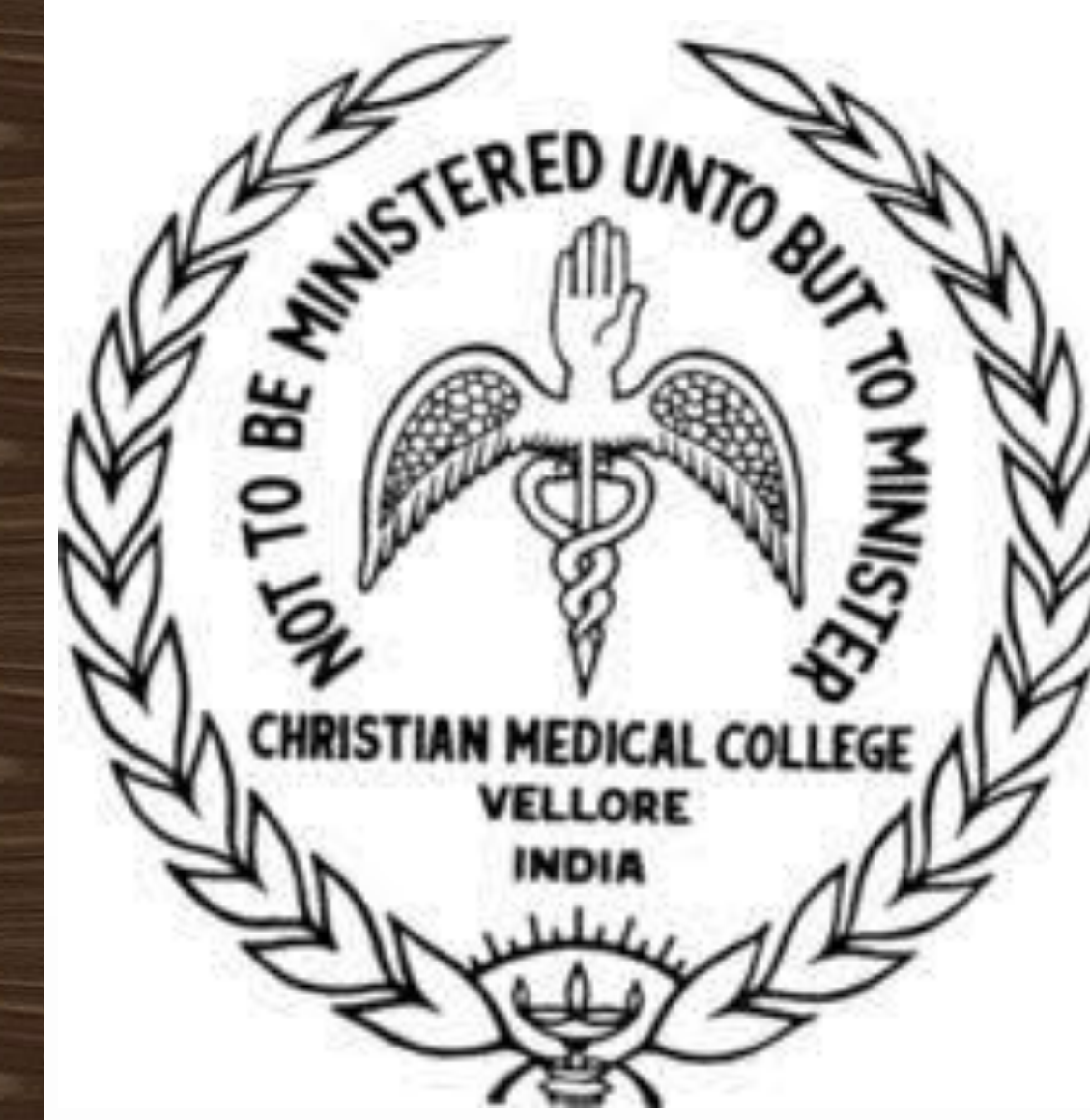
INTRODUCTION

• Kidney transplant represents the best physiological replacement therapy for patients with chronic end stage renal disease.

• The aim of our study was to analyze the characteristics of the recipient that impact kidney graft survival.

METHODS

• Retrospective Cohort study

• Approved by the Institutional Review Board of Christian medical college.

• Live or deceased donors in our centre between January 2008 and Dec 2018

Statistical analysis

• Graft survival was calculated using Kaplan–Meier analysis.

• To assess variables associated with transplant outcome Univariate and multivariate Cox proportional hazards regression models

• Factors affecting graft loss were analysed.

RESULTS

Baseline characteristics:

794 patients

➢ 88.9 %-Live donor ; 11.1% deceased donor

➢ ABO compatible transplant- 97.4 %

➢ Mean recipient age -35.77 years

➢ 78% recipients were male.

➢ Country of origin- India (79.8 %), Bangladesh (10.1%) and Bhutan (9.1%).

➢ Native Kidney Disease-27% - unknown.

➢ In the remaining cases main cause of ESRD was CGN, followed by diabetes mellitus.

➢ Occupation-37.8% unemployed(includes students); 4.1% farmers

➢ Dialysis Vintage:-10.7±12.7 months.

➢ Induction Agent:-71.4 % -basiliximab; 26.4%-ATG.

RESULTS

Graft Loss

• 76 patients had graft loss

• Cumulative graft loss was 9.1%.

• Most common cause of graft loss was attributed to recipient death with a functioning graft(43%).

• Second most common cause of graft loss was Rejections.

• Clerical workers, Farm and shop owners had maximum percentage of graft loss 26.9%.

• Indians had the highest incidence of graft loss(10.7%) and Bhutan patients had least incidence of graft loss(3.8%)

• Maximum graft loss was among group with female to male transplant(8.8%) and least among (female to female transplant)

Factors predicting graft loss were:-

Higher mean age	Pre transplant Diabetes mellitus (OR=2;P=0.024)	Pre Transplant CVA (OR=4.3;P=0.029)	High BMI (P=0.016)
Higher WIT (P= 0.016) & CIT(P=0.001)	Recipient Pre-transplant HBV infection (OR=4.3 ;P=0.02)	Slow graft function (OR=3.4;P=<0.01)	Delayed graft function (OR=4.1;P=<0.01)
Post Transplant Leucopenia (OR=1.8 P=0.08)	Post transplant Bacterial Pneumonia (OR=5.4;P<0.01)	Post transplant PCP pneumonia (OR=15.6 ;P<0.01)	Post transplant Deep fungal infection (OR=6.8;P<0.01)

Graft Survival

• The graft survival at the end of 1 year, 3year and 5 year was 96.56%, 93.67% and 91.67% respectively.

• Overall survival as per KM survival analysis was 81.98%.

• The mean survival was 130 months (SE 1.87)

• Based on the Cox multivariate analysis, the factors which were independently associated with graft survival were

   • Recipient weight gain till last follow up (95 %CI 0.906-0.902)

   • Absence of rejection (95 %CI 1.44-5.18),

   • A blood group(95 %CI 0.11-0.85).

CONCLUSION

• In conclusion, we have shown that the outcome after kidney transplantation is good for both live and deceased donor transplant.

• Study shows relatively good success of renal transplant in our centre and identifies areas for potential interventions to improve allograft and patient survival.

"Je maintiendrai"-Motto of Gabriel Ritchet".