

OUTCOMES OF EARLY VERSUS LATE REJECTION IN KIDNEY TRANSPLANT RECIPIENTS

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BACKGROUND

- Several studies have suggested that late rejection (LR) has a greater effect on long-term graft survival than early rejection (ER).
- The aim of this study was to investigate the relative impact of ER and LR on graft function after kidney transplantation.

METHODS

- Retrospective analysis of patients who underwent kidney transplantation at our centre between 2006 and 2017 (excluding ABO incompatible transplants).
- ER and LR were defined as biopsy-proven rejection within the first 3 months and 3 months after transplantation respectively.
- We compared the following outcomes:
 - Overall patient survival,
 - Death censored graft survival (return to dialysis or re-transplantation),
 - Change in eGFR at 1 and 3 years post episode of ER/LR

RESULTS

- No significant difference in unadjusted patient survival (**figure 1**)
- Trend towards lower graft survival after LR at 10 years (**figure 2**).
- Recipients with ER sustained a lower fall in eGFR from baseline ($\Delta -6.4\text{ml/min/m}^2$ vs $-16.2\text{ ml/min/1.73m}^2$ at 1yr) after 1 year (**figure 3**).
- At 3 years from diagnosis, recipients with LR had 26.9% reduction in baseline eGFR vs.10.2% in the ER group (**figure 4**).

Total number of transplants (n=1327)

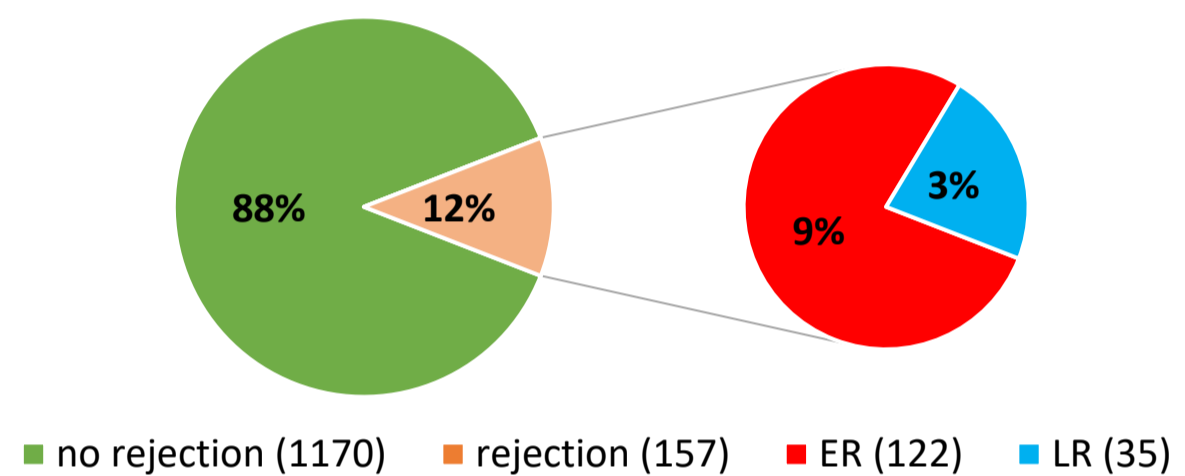


Figure 1. Kaplan Meier curves of unadjusted patient survival

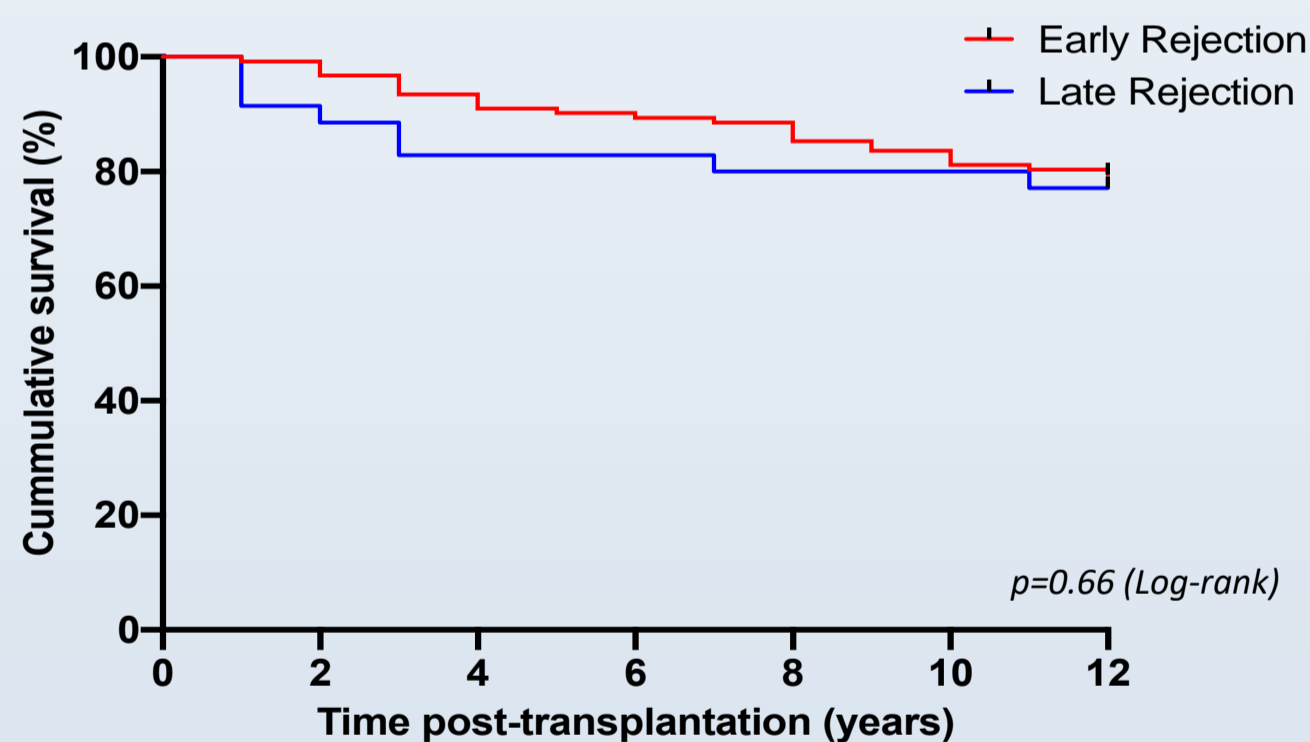


Figure 2. Kaplan Meier curves of death-censored graft survival

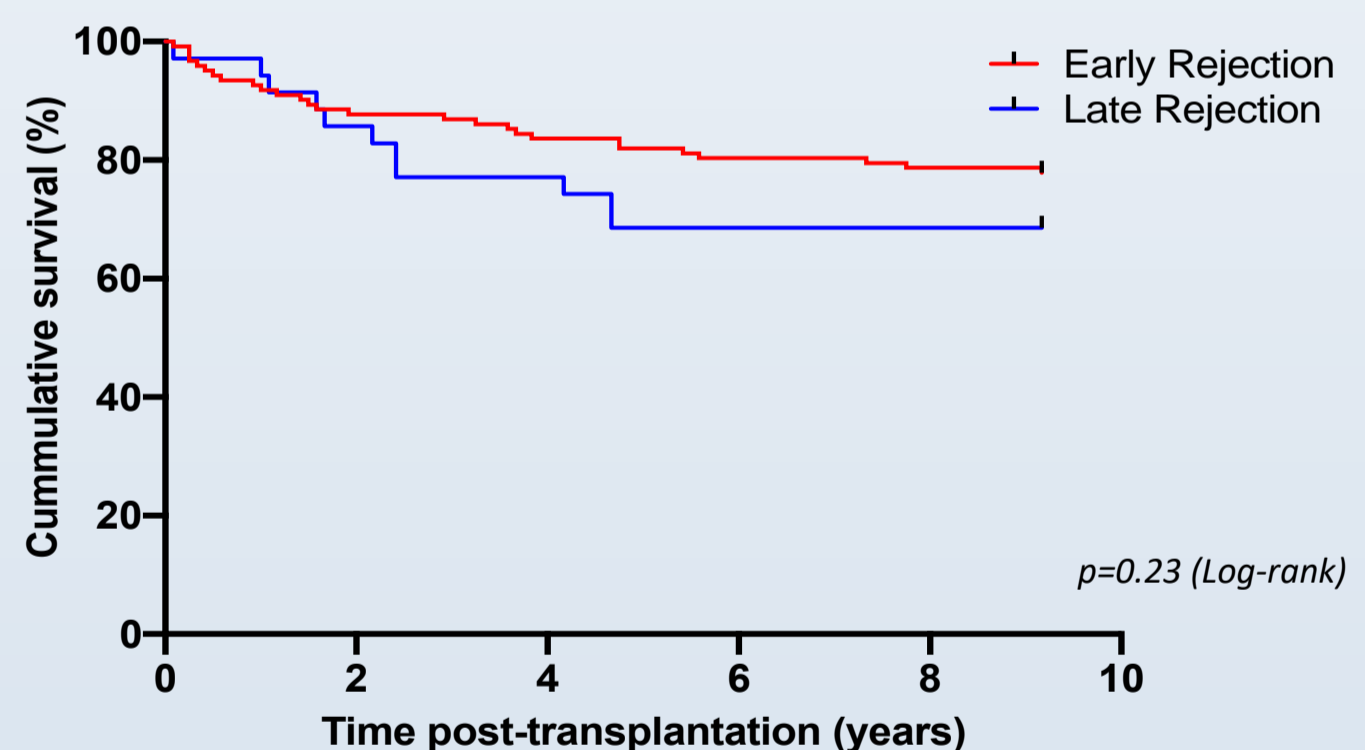


Figure 3. Absolute change in eGFR 1 year post rejection

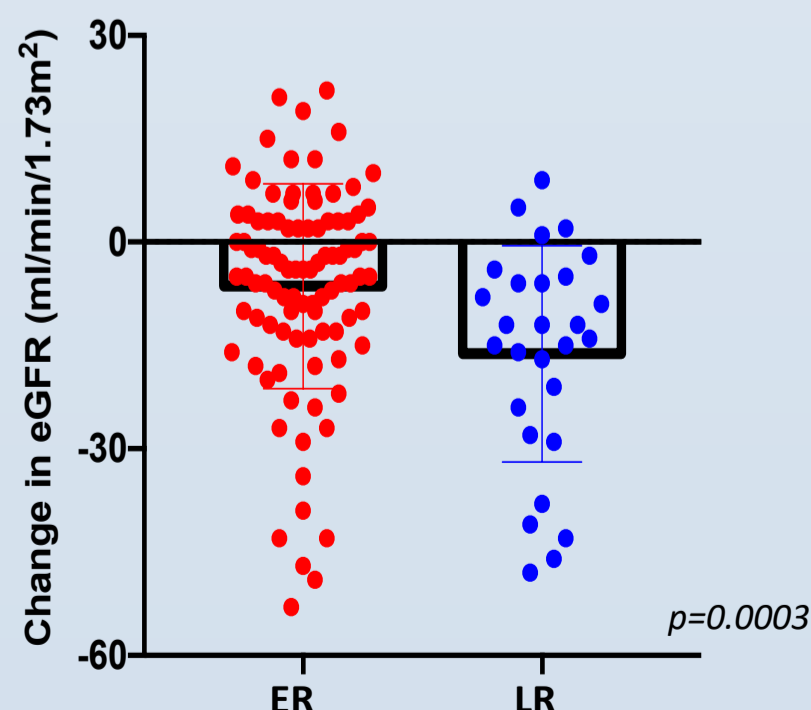
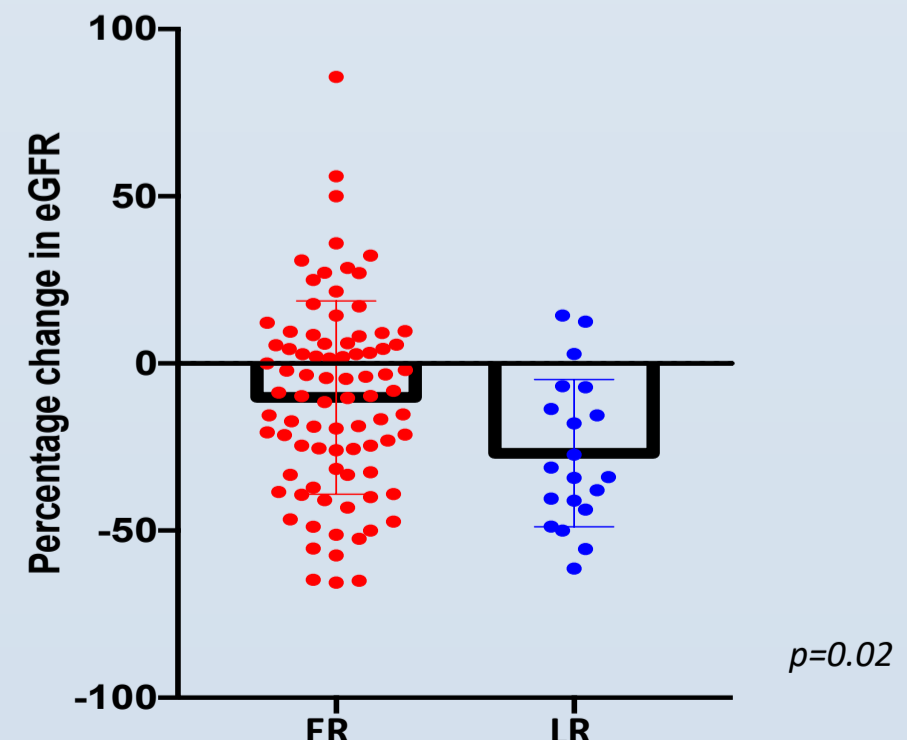


Figure 4. Percentage change in eGFR 3 years post rejection



CONCLUSION

- LR (>3months) is associated with a significantly greater decline in eGFR one year after an episode of rejection compared with ER at 1 and 3 years.
- Given the worse outcomes following LR, a greater emphasis needs to be made on efforts to predict and prevent recipients at risk of late rejection in order to avoid subsequent graft failure.