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Abstract Title: Kidney Transplant Outcomes in Patients with Hereditary Nephritis (Alport Syndrome)

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Body: Alport Syndrome is an X-linked progressive glomerular basement disorder with a prevalence of 1/50,000 live births. This retrospective analysis of data reported to the Organ Procurement Transplant Network examines outcomes associated with the disease.

Methods: Of 165,569 kidneys transplanted during 1996-2007, 1,624 (1%) were to patients with Alport. Diabetes prior to transplant was reported in only 2 Alport patients and 76% were male. Logistic regression indicated Alport patients were also more likely white, younger (but older than 10 years), not retransplanted or obese, and more likely had private insurance. A cohort matching these criteria was constructed that included 8,864 patients. Kaplan-Meier and Cox proportional hazards were used to compare rates of rejection, post-transplant diabetes, graft and patient loss.

Results: Rates of rejection and post-transplant diabetes were similar in patients with Alport and other causes of ESRD. The figure indicates patients with Alport (diamond) had lower rates of graft loss and death when compared to patients with other causes of ESRD (closed square) and the matched cohort (open square). The risk of graft loss in Alport patients was about 20% less and the risk of death about 40% less after adjusting for recipient and donor confounders. Among Alport patients, expanded criteria donor kidneys doubled the risk of graft loss and death. Interestingly, living related and unrelated donors conferred a similar degree of benefit which may indicate heterozygousity in donors does not increase the risk of graft loss.

Conclusion: Retrospective examination of transplant registry data indicates Alport patients experience equal or greater benefit with a kidney transplant when compared to other causes of end-stage renal disease.