Summary and conclusion

The goal while treating children with end stage renal disease is to increase patient survival, and to restore an optimal quality of life. Although there have been many recent advances in conservative renal replacement therapy, renal transplantation remains the best treatment for children with end-stage renal disease.

Identification of problems associated with kidney transplantation in small weight children is an essential step towards improving graft function and patient survival.

This study comprised 63 renal transplant children weighing 25 kilograms or less at time of renal transplantation, who received living donor renal allotransplant in Mansoura Urology and Nephrology Center between December 1984 and March 2009. These patients were retrospectively evaluated regarding their survival, grafts survival as well as physical growth.

From our study we found the following:

1- Our patient and graft survival rates at 1, 5 and 10 years were (98.4%, 96.8%, 96.8%) and (94.9%, 82.6%, 58.4%) respectively.

2- Significant better graft survival was obtained in cases with non glomerular causes of original kidney disease, pre-emptive renal transplantation and when the aorta was used for arterial vascular anastmosis.

3- Significant worse graft survival was documented among those experienced pretransplant hypertension, pre-transplant blood transfusion, acute rejection episodes, chronic rejection, post-transplant hypertension and graft obstruction.

4- Significant risk factors for growth retardation post renal transplantation were identified and included older age at time of transplantation, female sex, retarded growth at time of transplantation, incidence of chronic rejection, higher steroid cumulative dose and graft dysfunction.

Recommendations:

1- Renal transplantation in children should be considered when renal replacement therapy is indicated even in those weighing less than 25 kilograms.

2- Wide application of steroid avoidance immunosuppressive regimens should be encouraged in renal transplantation in children.