

Pre and Post Transplant Immunological Evaluation for a Long Successful Graft Survival

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ABSTRACT Allograft rejection continues to be a major problem and is the leading cause of graft loss in renal transplant recipients. Histocompatibility testing plays an important role in selection of donors for transplantation. A correct assignment of HLA antigens is considered important given that inadequate HLA matching of patient-donor pairs is associated with rejection in kidney transplantation. The present study was to assess a long and successful graft survival in end stage renal failure patients. 50 live related renal transplant patient-donor pairs were selected at random (n=100). Serological HLA A, B and DR typing results were compared to typing results obtained using sequence-specific primers in the polymerase chain reaction. In spite of using a very large panel of antisera in the serological method, there were 6 blank or undefined antigens (2 in the A locus, 1 in the B locus and 3 in the DR locus). The PCR-SSP low resolution method allowed identification of these blanks. Results reveal that screening test should be carried by serology. Ambiguous or blank antigens by serology should be confirmed by DNA typing. The best graft survival was obtained in patients transplanted with kidneys from HLA identical siblings, while kidneys from haplo-identical donors gave lower graft survival. The HLA matching was apparent in both, 3 months graft survival as well as in long-term, which is >1 year in this study. There was no difference in graft survival when various family members are used as donors like father, mother and sibling. There was no upper recipient age limit for transplantation, although older recipients fared better than younger recipients.