

LONG-TERM TRANSPLANT SURVIVAL FOR LIVER RECIPIENTS IN THE UK

KM Barber, CJ Hamilton, D Collett, AD Mayer on behalf of UK Transplant Liver Advisory Group

Background: The National Liver Transplantation Programme in the UK was established in 1983 and since then over 9000 transplants have taken place. The aim of this study was to investigate the long-term transplant survival of these liver transplants.

Methods: Data on elective liver transplants performed in the eight designated liver centres in the UK from 1 January 1985 to 31 December 2002 were obtained from the National Transplant Database (NTxD). Long-term transplant survival estimates were obtained using the Kaplan-Meier method. Transplant survival time was calculated as time from first graft to patient death or graft failure.

Results: Between 1985 and 2002, 6197 first cadaveric heartbeating liver only transplants were performed: 5369 (87%) in adult and 828 (13%) in paediatric patients. Transplant survival estimates and corresponding 95% confidence intervals (CI) were 63% (CI 62-65%) at 5 years, 52% (CI 51-54%) at 10 years, 42% (CI 38-46%) at 15 years and 38% (CI 33-44%) at 18 years post-transplant. The median transplant survival time was 11 years (95% CI 10.2-12.4 years). There was some evidence to suggest better long-term transplant survival for paediatric recipients compared with adult recipients: 56% and 35%, respectively, of transplants still functioning after 18 years, $p=0.06$.

Analysing these data by year of transplant (in three-year groups from 1985 to 2002) showed that transplant survival was significantly different between the groups, $p<0.0001$, with more recent transplants doing better. This was mainly due to a significant improvement in transplant survival in the first year post-transplant for the years analysed. One year transplant survival was 54% (95% CI 48-59%) for transplants in 1985 to 1987 compared with 85% (95% CI 83-87%) for transplants in 2000 to 2002, $p<0.0001$. Analysis of long-term transplant survival of those transplants functioning after one year showed no statistically significant effect of transplant year.

Conclusions: 50% of first cadaveric heart-beating liver only transplants recorded on the NTxD since 1985 were still functioning after 11 years. Long-term transplant survival has significantly improved over the last 18 years. This improvement has been principally due to fewer graft losses in the first post-transplant year. However, there has been no appreciable improvement in transplant survival for those transplants still functioning after one year.