

OUTCOMES OF PREGNANCIES AFTER RENAL TRANSPLANTATION: A REPORT OF THE UK TRANSPLANT PREGNANCY REGISTRY

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Background: For most women of childbearing age, successful transplantation following end-stage renal failure allows an opportunity to start a family. There are, however, increased incidences of maternal and foetal complications for pregnancies in such patients.

Methods: The UK Transplant Pregnancy Registry was set up in March 1997 to study post-transplant pregnancy outcomes. Data concerning pregnancies in all solid organ transplant recipients were collected through a follow-up form. However, due to there being very few pregnancies in cardiothoracic and liver transplant recipients, only the results for renal transplant recipients are presented. To date, data have been collected from 35 renal transplant follow-up and 41 obstetric units in the UK for pregnancies between 1994 and 2001.

Results: A total of 193 pregnancies in 176 kidney transplant recipients were reported. Outcomes were reported for 188 pregnancies as follows: 149 (79%) live births, 21 (11%) miscarriages, 11 (6%) therapeutic terminations, three (2%) intra-uterine foetal deaths, three (2%) stillbirths and one (<1%) ectopic pregnancy. Of the 121 live births with reported gestational age, 61 (50%) had a preterm delivery.

Logistic regression results suggest that the presence of drug-treated hypertension during pregnancy ($p = 0.006$) and a high ($>150 \mu\text{mol/l}$) serum creatinine before pregnancy ($p = 0.05$) increase the risk of a preterm birth.

A comparison of serum creatinine levels showed a statistically significant ($p = 0.025$) increase in the median serum creatinine level from $125 \mu\text{mol/l}$ pre-pregnancy to $131 \mu\text{mol/l}$ after pregnancy, with greater increases for those with poorer graft function before pregnancy ($p = 0.05$). A matched case-control study was used to investigate the effect of pregnancy on graft function, with matching on age, transplant date, graft number, HLA mismatches and serum creatinine level prior to the pregnancy. Preliminary results from this study suggest that pregnancy has no significant effect on long-term graft outcome.

Discussion: These results are consistent with published literature in that if renal function before pregnancy is good and hypertension is absent, the pregnancy can have a favourable outcome. Although there are conflicting opinions about the effect of pregnancy on graft function, our preliminary analyses suggest that pregnancy does not compromise graft survival.