65  IDENTIFICATION OF ORGAN CHARACTERISTICS UNSUITABLE FOR IMPLANTATION IN THE UNITED STATES

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Table 2.

<table>
<thead>
<tr>
<th>Test</th>
<th>100</th>
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<td>HICV</td>
<td>95,9</td>
<td>95,7</td>
<td>95,6</td>
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<tr>
<td>HBcAb+</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HCV</td>
<td>99,9</td>
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<tr>
<td>Meningitis</td>
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<tr>
<td>Bacteremia</td>
<td>98,5</td>
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Conclusion: Graft and recipient survival appears to be satisfying in every risk category, whilst data regarding HBcAb+ category are severe, those regarding the other categories are quite few. The positive issues of this study, along with the improvements in treating these infections, should encourage to enlarge the range of organ choice in order to increase organ procurement.

66  FACTORS PREDICTIVE OF THE DISCARD OF ECD KIDNEYS DO NOT PREDICT OUTCOME

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Extending the opportunity of transplantation of kidneys from expanded criteria donors (ECD) has been limited by the high rate of ECD discard. We investigated the relationship between donor characteristics that are highly predictive of kidney discard and post-transplant outcomes.

Methods: As part of a U.S. Health and Human Services sponsored research grant (1 I39 OT 00123-01), factors predictive of ECD discard were determined using Logistic Regression models adjusted for multiple donor and recipient factors. The predictive value of those factors were then tested against several post-transplant outcomes, including delayed graft function (DGF), graft loss, length-of-stay (LOS), and a combined outcome (of delayed graft function, graft loss or death during the first post-operative year).

Results: Five factors were statistically predictive of discard: percent glomerulosclerosis (GS) 10-19% compared to GS equal to 0% (OR=2.07, p=0.013); GS > 20% compared to GS equal to 0% (OR=4.61, p=0.0001); a final pulsatile perfusion pump resistance > 0.4 compared 0-0.2 (OR=2.95, p=0.005); age > 70 years compared to 50-59 (OR=3.27, p=0.0020); and the presence of kidney cysts (OR=1.89, p=0.005). Of these factors, none was predictive of DGF, LOS, or the combined outcome. Only age > 70 was predictive of graft failure counting death as an event (HR=1.91, p=0.034) and only age > 70 (HR = 2.38, p=0.035) and GS > 20% (HR=2.25, p=0.022) were predictive of death. The censored graft failure. However, 55 of 256 (22%) kidneys recovered from ECD under the age of 70 years, and with a resistance less than 0.4 and GS less than 20% were discarded.

Conclusions: Reflecting widely held beliefs within the kidney transplant professional community, GS, resistance and age are highly predictive of ECD kidney discard. However, this study disputes the misperception of a relationship between those factors predictive of discard and several post-transplant outcomes. Transplant centers should reexamine the criteria by which decisions to discard ECD kidneys are being made.

67  EARLY RESULTS OF A CONTROLLED NON-HEARTBEATING PROGRAMME

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Introduction: The continued mismatch between supply and demand for organs has led to the development of controlled non-heart beating donation (CNHBD) programmes. Between April 2006 and March 2007, 159 CNHBD yielded 307 kidneys in the UK. Key considerations in establishing a CNHBD programme include the difficulty in prediction of asystole, logistical issues relating to the process and outcomes of CNHBD organs. We present our experience of CNHBD in a University Hospital with a mixed critical care unit a transplant centre serving a population of 2.2 million.

Methods: Prior to implementation of CNHBD, a steering group determined that the programme was feasible and an implementation committee produced protocols covering all aspects of the programme. All referrals for CNHBD between January 2005 and January 2008 are included in this analysis. The cause of death, withdrawal-to-asystole, machine perfusion, organ usage, warm and cold ischaemia times, delayed graft function, early and late graft function were analysed.

Results: During the period, 79 patients were referred resulting in 35 proceeding to retrieval and 61 kidneys being successfully transplanted. Forty-four patients did not proceed because of delayed asystole (15), declined/no assent (10), medical unsuitability (14), early asystole (4) with one becoming brain stem dead prior to withdrawal of treatment. Of the 35 donors, 18 had intracranial haemorrhage, 10 hypoxic brain damage and 7 traumatic brain injury. The median time from withdrawal of futile life-sustaining therapy to asystole was 15 min (IQR 10.0-23.0). The median primary warm ischaemic time (systolic blood pressure <50 mmHg to perfusion) was 20 min (IQR 16.0-27.0) and the median cold ischaemic time was 18 hours (IQR 11.7-20.0). Forty one percent (16/39) kidneys preserved by machine perfusion showed delayed graft function compared to forty-five percent (10/22) of kidneys preserved in cold storage. The median time to halving of serum creatinine was 7 days.