O-099
LUNG TRANSPLANTATION WITH GRAFTS RECOVERED FROM EUTHANASIA DONORS
Dirk Van Raemdonck1, A. Neyrinck2, W. Coosemans1, H. Decaluwe1
P De Leyn1, P. Nafteux1, H. Van Veer1, G.M. Verleden1
1Thoracic Surgery, University Hospitals Leuven, Leuven, Belgium;
2Anaesthesiology and Algology, University Hospitals Leuven, Leuven, Belgium;
3Pneumology, University Hospitals Leuven, Leuven, Belgium

Objectives: Donors after circulatory death (DCDs) enlarge the lung donor pool. We reviewed outcome in recipients transplanted with lungs recovered from controlled DCDs Category-5 (euthanasia donors).

Methods: Between January 2007 and December 2012, 47/350 (13.4%) patients received pulmonary grafts from controlled DCDs, including 6 (1.7%) after euthanasia in accordance with state legislation and approval by Ethics Committee. Patients suffered from an unbearable neuromuscular (n = 3) or neuropsychiatric (n = 3) disorder with explicit wish to donate organs. Euthanasia was executed by an independent physician in a room adjacent to the operating room in the absence of the retrieval team.

Results: Six recipients (2M-4M; median [range] age: 51 [30-59] years) underwent bilateral lung transplantation for emphysema (n = 3), pulmonary fibrosis (n = 2), and BOS (n = 1). Waiting time was 436 [195-507] days. In contrast to other DCD categories, pre-arrest agonal period was absent. Warm ischaemic time between cardiac arrest and cold Perfadex® pulmonary flush was 13 ± 3 min. Total ischaemic time until reperfusion of the graft was 329 [225-427] min for first lung and 478 [346-603] min for second lung. No primary graft dysfunction grade 3 was present beyond T24. One recipient died after 3 months in ICU from an unrelated cardiac problem. Remaining patients were extubated after 2 [1-5] days and discharged from ICU after 7 [2-10] days and from hospital after 27 [23-36] days. FEV1 and FVC increased from 20 [15-57]% and 59 [51-66]% pre-transplant to 85 [61-94]% and 75 [54-80]% at the time of hospital discharge, respectively; (P < 0.01). Follow up was 37 [1-66] months. Actuarial survival and freedom from BOS grade 1 at 1, 3, and 5 years conditional to hospital discharge was 100%, 100%, and 100% and 100%, 100%, and 80%, respectively.

Conclusions: Euthanasia donors accounted for 12.8% of all lung DCDs. Immediate post-transplant graft function and long-term outcome in recipients was excellent. More euthanasia donors are to be expected with more public awareness.

Disclosure: All authors have declared no conflicts of interest.