

O-099

**LUNG TRANSPLANTATION WITH GRAFTS RECOVERED FROM EUTHANASIA DONORS**

Dirk Van Raemdonck<sup>1</sup>, A. Neyrinck<sup>2</sup>, W. Coosemans<sup>1</sup>, H. Decaluwe<sup>1</sup>, P. De Leyn<sup>1</sup>, P. Naftaux<sup>1</sup>, H. Van Veer<sup>1</sup>, G.M. Verleden<sup>3</sup>

<sup>1</sup>*Thoracic Surgery, University Hospitals Leuven, Leuven/Belgium,*

<sup>2</sup>*Anaesthesiology And Algology, University Hospitals Leuven, Leuven/Belgium,*

<sup>3</sup>*Pneumology, University Hospitals Leuven, Leuven/Belgium*

**Objectives:**

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

**Methods:**

Between 01/2007-12/2012, 47/350 (13.4%) patients received pulmonary grafts from controlled DCD's, 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 ischemic time between cardiac arrest and cold Perfadex<sup>®</sup> pulmonary flush was 13±3 min. Total ischemic 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 DCD's. 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.