EXTENDED RECIPIENTS BUT NOT EXTENDED DONORS ARE ASSOCIATED WITH POOR OUTCOMES FOLLOWING LUNG TRANSPLANTATION

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Objectives: Extended donors are safely used to increase the donor pool in lung transplantation (LT), but their influence in critically ill patients (extended recipients) remains controversial. We compared LT outcomes matching optimal or extended donors (OD or ED) with optimal or extended recipients (OR or ER).

Methods: Three hundred and sixty-five LT were reviewed. ED criteria: age >55, PaO2/FiO2 <350 mmHg, pulmonary infiltrates/purulent secretions, ischaemic times >6 h (single LT) and >9 h (double LT). ER criteria: Pulmonary fibrosis or pulmonary hypertension, pre-transplant intubation, age >65 years, bypass >2 h. Four groups were created: Group 1 (OD/OR), Group 2 (OD/ER), Group 3 (ED/OR), and Group 4 (ED/ER). Thirty-day mortality, primary graft dysfunction (PGD), long-term survival and other transplant outcomes were compared between OD and ED, OR and ER, and among the four groups of study.

Results: There were 151 single- and 214 double-LT. Donors: OD (n = 229) vs ED (n = 136); PGD 8% vs 10% (P = 0.43); 30-day mortality 19% vs 20% (P = 0.53); survival (1, 5, 10, 15 years) 67%, 47%, 34%, 26% vs 69%, 53%, 46%, 29% (P = 0.33). Recipients: OR (n = 182) vs ER (n = 183); PGD 7% vs 10% (P = 0.10); 30-day mortality 15% vs 23% (P = 0.04); survival (1, 5, 10, 15 years): 73%, 57%, 46%, 30% vs 61%, 42%, 29%, 23% (P = 0.002). Four D/R groups: Group 1 (n = 122), Group 2 (n = 106), Group 3 (n = 61), Group 4 (n = 76); PGD 10%, 6%, 3%, 16% (P = 0.05); 30-day mortality 13%, 26%, 19%, 20%, respectively (P = 0.13); survival (1, 5, 10, 15 years) 74%, 55%, 44%, 35% (Group 1), 55%, 39%, 22%, 16% (Group 2), 70%, 59%, 48%, 26% (Group 3), and 68%, 47%, 37%, 22% (Group 4) (P = 0.004).

Conclusions: Lung transplantation in critically ill recipients is associated with poor early- and long-term outcomes, irrespective of the quality of the donor and length of ischaemic times.

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