

Kongress: 11th Int. Congress of Cardiothoracic and Vascular Anesthesia
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Abstract Nr.: 65
Kategorie: Thoracic anesthesia
Vortragssprache: E
Vortragsart: P
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Abstracttitel: Lung transplantation in patients with coronary artery disease

Purpose: Patients with advanced age are being listed for lung transplantation (LTX). Many of these patients have asymptomatic coronary artery disease (CAD) detected by cardiac catheterization. Perioperative morbidity and mortality of these patients undergoing LTX is unknown. Therefore, we evaluated the outcomes of these patients in this retrospective study.

Methods: After approval from institutional review board, we reviewed records of patients who underwent LTX between September 2007 and May 2008. Demographics, preoperative cardiac tests, intraoperative parameters (cardiopulmonary bypass, ischemic time, inotropic requirement, ischemic episodes and arrhythmias) and postoperative major organ dysfunction (respiratory, renal, cerebral and cardiac) and mortality were recorded. CAD patient's data was compared with non-CAD patients who underwent LTX during the same period.

Results: Sixty six patients received LTX, of whom 31 patients had CAD. Two had previous bypass surgery (CABG) with patent grafts, two others had concomitant CABG and LTX and 13 patients had cardiac stents. Rest of the patients underwent LTX without any cardiac intervention. Mean age of the patients were higher (65 years versus 46 years, $P < 0.001$) and there were more men than women in CAD group ($P = 0.04$). Mean pulmonary artery pressures and transpulmonary gradients were higher in non-CAD group. Mean ejection fraction and number of patients with diastolic dysfunction were similar. History of smoking was higher in CAD group (28% in non-CAD vs 93% in CAD group, $P < 0.001$). Anemia, ethanol use, hypertension, arrhythmias, diabetes, renal and cerebrovascular disease were comparable. More CAD gp patients were treated with aspirin and statins. CAD gp had more patients with COPD and non-CAD group had more patients with cystic fibrosis. 88% in non-CAD gp and 72% in CAD gp had double LTX ($P = 0.17$). Requirement for cardiopulmonary bypass was higher ($P = 0.04$) in non-CAD gp (51%) than CAD gp (26%). Wall motion changes, arrhythmias, requirements for inotropes, vasopressors and nitric oxide were comparable. Respiratory, cardiac and renal failure, stroke, sepsis, length of hospital stay and overall mortality (11% in non-CAD gp vs 9.7% in CAD gp, $P = 0.59$) were similar. Atrial fibrillation developed more significantly ($P = 0.009$) in CAD (36%) group compared to non-CAD (8.5%) group. **Conclusion;** Patients with CAD undergoing lung transplants have comparable morbidity and mortality to non-CAD patients. Atrial fibrillation occurred more commonly in patients with CAD.