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Survival outcomes in patients with Eisenmenger syndrome after heart-lung or bilateral sequential lung transplantation

Authors:
K Kearney¹, N Bart¹, K Khush², D Hayes³, A Keogh¹, ¹St Vincents Hospital - Sydney - Australia, ²Stanford University - Palo Alto - United States of America, ³Nationwide Children's Hospital - Columbus - United States of America,

Topic(s):
Pulmonary Hypertension

Citation:
Background: Eisenmenger syndrome (ES) is defined as pulmonary hypertension secondary to a right to left intracardiac shunt, commonly an atrial septal defect (ASD) or ventricular septal defect (VSD). Heart-lung (HLTx) or bilateral sequential lung transplantation (BSLT) are both treatment options for some candidates. The choice between these two procedures has varied historically and according to transplant centre preference and donor availability. We completed a retrospective study to determine if BSLT with cardiac repair was associated with better outcomes compared to HLTx.

Aim: This study compared post-transplant survival in patients with ES undergoing HLTx or BSLT.

Method: Using the International Society Heart and Lung Transplantation Registry data, we identified all patients with ES between October 1, 1987 and March 31, 2018.

Results: A total of 177 patients underwent HLTx for ES ASD and 101 who underwent BSLT with cardiac repair. Median follow up was 890 days (range 0-9888 days) for the entire post-transplant cohort. 126 HLTx and 66 BSLT patients died in the follow up period.

A total of 173 ES VSD patients underwent HLTx in the database, and 52 underwent BSLT with cardiac repair. Median follow up was 460 days (range 0-8406 days) for the entire post-transplant cohort. 116 HLTx and 36 BSLT patients died during the follow up period.

Figure 1 demonstrates the comparative Kaplan-Meier survival curves following BSLT or HLTx for Eisenmenger’s ASD and VSD patients. No statistically significant difference in Eisenmenger survival between combined heart-lung transplantation or bilateral sequential lung transplantation group (ASD log rank test p value = 0.99, VSD log rank test p value = 0.1 performed for the first 6 year).

Conclusions: Our analysis determined that patients with ES and either VSD or ASD had similar long-term survival comparing HLTx with BSLT and cardiac repair.
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1 St Vincents Hospital - Sydney - Australia, 2 Stanford University - Palo Alto - United States of America, 3 Nationwide Children's Hospital - Columbus - United States of America

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