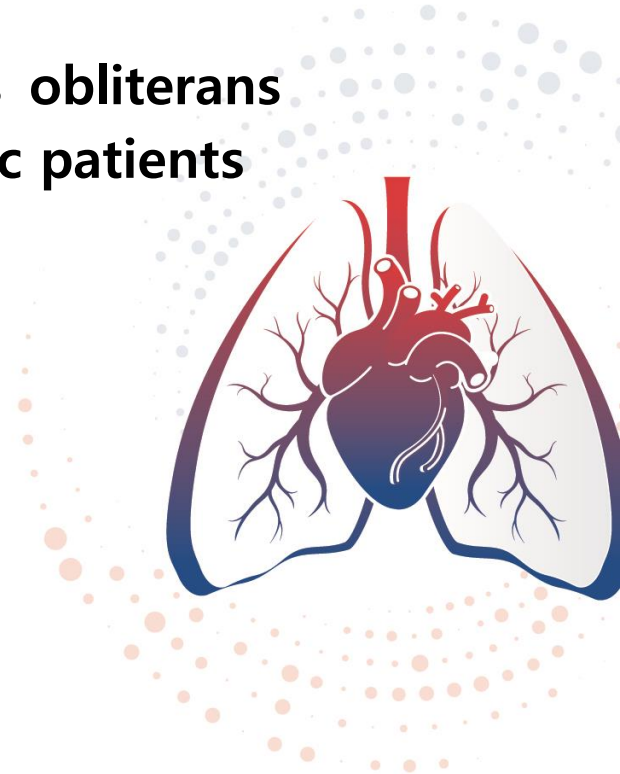


2023 대한심장혈관흉부외과학회

제55차 추계학술대회 & APELSO 2023

2023. 11. 02 (Thu) - 11. 04 (Sat), 그랜드 인터컨티넨탈 파르나스 서울

Experiences of bilateral lung transplantation for bronchiolitis obliterans syndrome after allogeneic stem cell transplantation in leukemic patients



- Lung transplantation (LTx) is optimal therapeutic modality for end-stage lung disease in patients with bronchiolitis obliterans syndrome (BOS) following allogenic hematopoietic stem cell transplantation (SCT).
- Malignant lympho-hematopoietic disease is associated with high morbidities due to vulnerable to infectious disease and relapse with poor underlying conditions.
- The purpose of this study is to review surgical outcomes in LTx for BOS after allo-SCT.

- We retrospectively reviewed data of 10 bilateral LTx and 1 Heart-lung Tx at single institution between Dec 2013 and April 2023.
- Total 8 (72.7%) LTx for BOS after allo-SCT were included in this study, after exclusion of three (1 IPF, 2 viral pneumonia) other than BO without hematologic disease.
- The characteristics of patients, operative and surgical outcomes of morbidities and mortalities were analyzed.

- The mean age was 32.3 (23 to 44) years of 6 male and 2 female patients. All 8 cases received SCT for leukemia (5 ALL, 62.5% and 3 AML, 37.5%) and median time between SCT to LTx was 962.5 days (188 to 2490).
- All cases having GVHD and 4 patients having invasive aspergilloma with NTM diseases. 6 patients having tracheostomy, 4 patients underwent CTD for pneumothorax prior to LTx and 4 (50%) ECMO bridge were required.
- Mean operation time was 451 min. Total 2 (1 Heart-lung Tx and 1 bilateral LTx (1/7, 14.2%) showed operative mortality due to postoperative bleeding.
- 90 days mortality was 2/8 (25.0%) in all cases, but 1/7 (14.2%) in 7 bilateral LTx cases with 1-year survival rate was 85.7% after exclusion of initial heart lung Tx case.
- 2 patients died due to (relapse of leukemia and COVID 19 infection, respectively) after 1 year that 4/8 (50%) have survived during median follow-up 665 days (0 to 3151 days).

- Lung transplantation for BOS after SCT hold high risk with poor leukemic conditions that selectively indicated with multi-disciplinary team approach.
- Postoperative bleeding, relapse of leukemia, and recurrent pulmonary infection is thought to be highly focused to enhance surgical outcome with less morbidities.