
International Symposium of Pediatric Heart and Lung Transplantation

Keynote Lecture 4

Current status of pediatric lung transplantation in the world

Chair: Hiroshi Date (Department of Thoracic Surgery, Kyoto University Graduate School of Medicine, Japan)

2021年7月10日(土) 09:00 ~ 09:30 Track6 (現地会場)

[ISPHLT-KL4] Current status of pediatric lung transplantation in the world

○Stuart C Sweet (Department of Pediatrics, Washington University, USA)

Pediatric lung transplantation has evolved significantly since the first isolated lung transplants were performed in children more than 30 years ago. Initially dominated by children and adolescents with Cystic Fibrosis, the diagnostic landscape now includes a full spectrum of lung and pulmonary vascular diseases and includes transplantation in infancy for surfactant protein related diseases and pulmonary vascular disorders. As therapies for Cystic Fibrosis and idiopathic pulmonary hypertension have evolved, these diseases are less prevalent indications for pediatric lung transplant. Urgency based allocation systems in the United States and elsewhere have led to increased adult lung transplant volumes and correspondingly greater competition for lungs in these areas. Therefore, pediatric candidates often have more advanced lung disease when lungs finally become available. Transplant programs are often challenged to bridge critically ill patients to transplant with extracorporeal support and extend criteria for donor organ acceptance. In Japan, limited availability of pediatric deceased donor organs has led to sustained and innovative use of living donor transplantation which has virtually disappeared in the United States. Although pediatric lung transplant outcomes are comparable to those of adults, adolescence and transition to adult care remains a particularly challenging journey for pediatric lung transplant recipients. Nonetheless pediatric lung transplantation remains a viable option for patients with end stage pulmonary parenchymal and vascular diseases when other therapies are unsuccessful and a fertile area for research and innovation to improve outcomes.