

Importance of Multi-Disciplinary Approach for Successful Bilateral Living-Related Lung Transplantation for Severe Interstitial Pneumoniae Accompanied with Pulmonary Hypertensive Crisis

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Abstract

Secondary pulmonary hypertension following severe interstitial pneumoniae, especially pulmonary hypertensive crisis is an intractable disease.

A 52-year-old male with rapidly progressive interstitial pneumoniae was scheduled for a bilateral living-related lung transplantation. His secondary pulmonary hypertension accompanied with the severe lung disease was deteriorating preoperatively, he was suffered from circulatory respiratory failure due to pulmonary hypertensive crisis. Urgent V-A ECMO implantation to stabilize his cardio-pulmonary status was performed, then a followed lung transplantation was considered. However, his cardiac function was extremely diminished under the extra corporeal support. Fast and thorough investigations for his cardiac dysfunction diagnosed the cardiac afterload of V-A ECMO aggravated his originally declining left ventricular function due to severe right heart failure without new cardiogenic events. His cardiac function was gradually recovered after an initiation of intra-aortic balloon pumping to reduce the cardiac afterload, consequently the scheduled bilateral living-related lung transplantation was successfully performed.

The first lung transplantation with ECMO bridge in Fukuoka University was achieved not only with careful preparation for the living lung transplantation by the lung transplant team but with the prompt and proper multi-disciplinary approach.

Key words: Pulmonary hypertensive crisis, Circulatory respiratory failure, ECMO, Lung transplantation, Multi-disciplinary approach, Interstitial pneumoniae