LONGDOM
International Journal of Physical Medicine & Rehabilitation
ISSN 2329-9096
2020
Sp.Iss.114

Lungs of the Future? Physical Therapy Outcomes Pre and Post Ex Vivo Lung Perfusion Transplantation

Caitlyn Anderson

New York University Langone Health, United States

Abstract

Ex Vivo Lung Perfusion (EVLP) is a cutting edge and translational organ transplantation (TP) technique by which a previously unsuitable donor lung can have restored circulation and ventilation. Following treatment on the EVLP system which includes a ventilator, perfusate and fluid circuit, oxygenator, and pump, the lung can be re-evaluated and eventually transplanted into a viable patient (pt). EVLP lungs not only have the ability to expand the donor pool but may give high risk pts with end stage lung disease a chance at functional and meaningful life. Physical therapy (PT) intervention has yet to be studied in this pt population in acute or outpatient settings. This case study describes a successful EVLP TP outcome following acute inpatient rehabilitation (IRF).

Case Description:

A 70 year old male with complicated medical history including pulmonary fibrosis and chronic obstructive pulmonary disease presented to a large, urban medical center with rapid decline and respiratory failure. Following intubation and aggressive pulmonary treatment, the pt was admitted to IRF where he spent approximately 2.5 weeks prior to re-admission to the intensive care unit (ICU) for respiratory distress.

Outcomes:

Pre-EVLP PT initial evaluation (IE): 6 minute walk test (6MW): 331' with seated rest breaks on 6 to 8 liters using non re-breather mask with severe dyspnea. Despite significant oxygen needs up to 15 liters and intermittent high-flow, pt engaged in progressive cycling, gait training, chest PT, and functional strengthening for 13 sessions using Borg scale for moderate intensity. Pt experienced eventual respiratory failure post steroid wean with ICU re-admission and was given poor prognosis.

Biography:

Caitlyn Anderson, PT, DPT, NCS is a board certified Neurologic Clinical Specialist through the American Board of Physical Therapy Specialities. She is an active member of the American Physical Therapy Association (APTA) and has been treating patients with both neurological and cardiopulmonary dysfunction for over 5 years, including triage in the emergency room, neurological ICU and medically complex inpatient rehabilitation. Caitlyn is a content developer for the Acute Care Residency Program at NYU Langone Health. Caitlyn has presented multiple posters in 3 consecutive years at the Combined Sections Meeting.

Speaker Publications:

1. The Effect of Transcranial Direct Current Stimulation on the Expression of the Flexor Synergy in the Paretic Arm in Chronic Stroke is Dependent on Shoulder Abduction Loading

3rd World Physical Medicine and Rehabilitation Conference; Webinar- June 18-19, 2020

Abstract Citation:

Caitlyn Anderson, Lungs of the Future? Physical Therapy Outcomes Pre and Post Ex Vivo Lung Perfusion Transplantation, Rehabilitation Health 2020, 3rd World Physical Medicine and Rehabilitation Conference; Webinar- June 18-19, 2020.

(https://rehabilitation.healthconferences.org/2020)