Editorial
Volume 11:10, 2021

Journal of
Pulmonary & Respiratory Medicine

ISSN: 2161-105X

Open Access

All about Targeted Lung Denervation in Patients with Chronic Obstructive Pulmonary Disease

Jennifer Ceilleux*

Department of Respiratory Medicine, Medical Center Leeuwarden, Leeuwarden, Netherlands

Editorial

Exacerbations of Chronic Obstructive Pulmonary Disease (COPD) are linked to worsening clinical outcomes and higher healthcare costs, even when adequate pharmacological therapy is used. Targeted Lung Denervation (TLD), a novel bronchoscopic technique that interrupts parasympathetic pulmonary innervation, has been developed to minimise the clinical implications of cholinergic hyperactivity and its impact on COPD exacerbations. The AIRFLOW-2 study compared sham bronchoscopy and optimal drug therapy alone in subjects with moderate-to-severe, symptomatic COPD two years after randomization to assess the durability of safety and efficacy of TLD additive to optimal drug therapy compared to sham bronchoscopy and optimal drug therapy alone in subjects with moderate-to-severe, symptomatic COPD.

TLD (targeted lung denervation) is a bronchoscopic radiofrequency ablation therapy for Chronic Obstructive Pulmonary Disease (COPD) that causes parasympathetic pulmonary nerves to be permanently disrupted, lowering airway resistance and mucus hypersecretion. TLD (targeted lung denervation) is a pulmonary interventional technique for COPD that aims to minimise the clinical implications of cholinergic hyperactivity by disrupting parasympathetic nerve input to the lung. TLD has been shown to be a safe therapy that successfully relieves symptoms and delays exacerbation onset. We created a new cryo-balloon TLD system and tested its practicality, safety, and effectiveness in this work. TLD (targeted lung denervation) is a new bronchoscopic technique that reduces the clinical implications of cholinergic hyperactivity by disrupting parasympathetic pulmonary nerve input to the lung.

In the AIRFLOW-1 study, patients with moderate-to-severe, symptomatic COPD were evaluated for safety and TLD dosage. Over the course of three years, this study looked at the long-term effects of TLD on COPD exacerbations, lung function, and quality of life. TLD (targeted lung denervation) is a new bronchoscopic technique that reduces the clinical implications of cholinergic hyperactivity by disrupting parasympathetic lung nerve input to the lung. In the AIRFLOW-1 study, patients with moderate-to-severe, symptomatic COPD were evaluated for safety and TLD dosage. Over the course of three years, this study looked at the long-term effects of TLD on COPD exacerbations, lung function, and quality of life. TLD (targeted lung denervation) is a new bronchoscopic technique that reduces the clinical implications of cholinergic hyperactivity by disrupting parasympathetic pulmonary nerve input to the lung. In the AIRFLOW-1 study, patients with moderate-to-severe, symptomatic COPD were evaluated for safety and TLD dosage.

TLD's long-term impact on COPD exacerbations was investigated in this study, Over the course of three years, lung function and quality of life were assessed. Severe asthma treatment choices are limited, especially for patients who do not fit the criteria for biologicals. Bronchoscopic ablation of the peribronchial vagal nerve trunks to diminish cholinergic activation of airway smooth muscle and submucosal glands is known as Targeted Lung Denervation (TLD). The experiences of the world's first two asthma sufferers who were treated with TLD. Both subjects had severe asthma (GINA 5) and were 54 and 51 years old (FEV1: 53 percent and 113 percent of predicted; AQLQ scores: 5.3 and 4.4). TLD was administered to both patients in a single day-case operation under general anaesthetic. At baseline and 12 months after TLD, data on lung function, health status, and adverse events were obtained. Up to 12 months after starting the medication, no significant side effects were recorded. Both participants' cough symptoms decreased after 6 months, and one participant reported a significant reduction in the utilisation of rescue medication. Spirometry, lung volumes, and health status did not alter much. TLD was conducted safely in both individuals, but additional research is needed to determine its safety and efficacy in severe asthma. As a result, more research into the management of severe asthma sufferers might be beneficial.

How to cite this article: Ceilleux, Jennifer. "All about Targeted Lung Denervation in Patients with Chronic Obstructive Pulmonary Disease." J Pulm Respir Med 11 (2021): 566.

***Address for Correspondence:** Jennifer Ceilleux, Department of Respiratory Medicine, Medical Center Leeuwarden, Leeuwarden, Netherlands, E-mail: CJennifer@yahoomail.com*

Received 07 October, 2021; **Accepted** 12 October, 2021; **Published** 17 October, 2021