Endobronchial valves can improve lung physiology

September 8 2016

(HealthDay)—Use of endobronchial valves (EBV) can improve lung

physiology in patients with homogeneous emphysema with absence of collateral ventilation, according to a study published online Aug. 31 in the *American Journal of Respiratory and Critical Care Medicine*.

Arschang Valipour, M.D., from Otto-Wagner-Spital in Vienna, and colleagues examined the efficacy and safety of EBV in patients with homogeneous emphysema with absence of collateral ventilation in a prospective randomized controlled trial of EBV plus standard-of-care (SoC; 43 patients) or SoC alone (50 patients).

The researchers found that at three months post-procedure, the improvement in forced expiratory volume in one second was 13.7 ± 28.2 percent and −3.2 ± 13 percent in the EBV and SoC groups, respectively (mean between-group difference, 17 percent). Statistically and clinically significant changes from baseline to three months were seen for other variables, including six-minute walk distance and St. George's Respiratory Questionnaire. At three months, target lobe volume reduction was −1,195 ± 683 mL; volume reduction in the target lobe was achieved by 97.2 percent of EBV subjects. Eleven subjects experienced procedure-related pneumothoraces.

"EBV in patients with homogeneous emphysema without collateral ventilation results in clinically meaningful benefits of improved lung function, exercise tolerance, and quality of life," the authors write.

The study was funded by Pulmonx, which manufactures the Zephyr endobronchial valves used in the study.

More information: Full Text (subscription or payment may be required)