Bronchial Thermoplasty—a new treatment for severe asthma

Mario Castro

Professor of Medicine and Pediatrics Division of Pulmonary & Critical Care Medicine
Washington University School of Medicine

New therapies are needed for patients with severe persistent asthma that cannot achieve control with current therapy with inhaled corticosteroids and long-acting \( \beta_2 \)-agonists. Bronchial thermoplasty is a novel intervention for asthma that delivers controlled thermal energy to the airway wall during in three separate sessions of bronchoscopies, resulting in a prolonged reduction in airway smooth muscle mass. Randomized controlled clinical trials with bronchial thermoplasty in subjects with severe asthma have resulted in improvements in overall asthma control as demonstrated by significant improvement in quality of life, asthma symptoms, severe exacerbations requiring corticosteroids, days lost from work/school/other daily activities due to asthma, and healthcare utilization. Patient screening for eligibility, selection, and ongoing management are keys factors in improving outcomes and minimizing adverse respiratory events. The method of performing bronchial thermoplasty with the Alair System, how to appropriately select and manage patients undergoing bronchial thermoplasty, and the clinical experience to date with this treatment will be reviewed.