Bronchial Thermoplasty

Patient Background
Age: 72 years old
Sex: Male
Symptoms: Shortness of breath, cough with sputum, lightheadedness, significantly decreased mobility
Personal History: Diabetic, high blood pressure

Indications for Procedure
- Diagnosed with severe asthma
- Minimal relief from inhaled corticosteroids
- Minimal relief from bronchodilators

Bronchial Thermoplasty Procedure
Bronchial Thermoplasty is an FDA approved procedure indicated for patients with severe persistent asthma in patients 18 years or older whose asthma is not well controlled with inhaled corticosteroids and long-acting beta agonist and have frequent flare-ups or inflammatory disease.

The outpatient procedure was scheduled in three sets, three weeks apart with each procedure lasting 30 to 45 minutes.

During the procedure, a bronchoscope is placed into the airway through the mouth or nose. The Alair™ Catheter has an expandable, electrode that delivers radiofrequency energy directly to the airways of the lungs for 10 seconds to heat the tissue in a controlled manner in order to reduce airway smooth muscle thickness.

Each session treats a different part of the lung to ensure safety. When the treatment is complete, patients return to their regular asthma-treating physician to continue managing the condition.

Outcomes
After the first treatment, patient noticed his breathing improved by about 50 percent. By the third procedure, the patient experienced normal breathing. Six months after treatment, the patient is increasing ambulation gradually and able to walk much further than he was ever able to do.
Bronchial Thermoplasty Research
At 1-year (compared to control group), patients with severe asthma who were treated with Bronchial Thermoplasty experienced:
- 32% decrease in severe asthma attacks¹
- 84% reduction in emergency room visits for respiratory-related symptoms¹
- 66% fewer days lost from work, school and daily activities due to asthma¹
- 79% of patients who were treated with Bronchial Thermoplasty reported a significant improvement in their asthma-related quality of life¹

At 5-year follow up, patients who were treated with Bronchial Thermoplasty experienced:
- 44% decrease in patients having severe exacerbations, compared with 12 months prior to BT treatment.²
- Reduction in percentage of patients experiencing exacerbations²
- 78% decrease in the percentage of patients experiencing ER visits for respiratory symptoms, compared with 12 months prior to BT treatment²

Conclusion
For most severe asthmatics, Bronchial Thermoplasty is a final step after they have failed to respond to other advanced therapies and who generally are dependent on or frequent user of oral corticosteroids (prednisone). The quality of life improvement in a substantial number of patients after Bronchial Thermoplasty is remarkable. Many are able to discontinue oral corticosteroids, avoiding the long-term complications of oral prednisone therapy. The substantial reduction in the number of emergency room visits, urgent care encounters and hospitalizations for asthma further improve quality of life.

As with other procedures, patient selection in Bronchial Thermoplasty is extremely important; both to ensure appropriateness of the procedure and to ensure that health care resources are not wasted.

Allergy Sleep & Lung Care is one of the leading centers in the Southwest Florida providing Bronchial Thermoplasty with significant success in helping patients with severe, steroid-resistant asthma.

Our clinic is dedicated to evaluating patients with severe asthma in a thorough and comprehensive manner. We work diligently to exclude other conditions that might mimic asthma and ensure that patients are and have been adherent to prescribed therapy, so that we can select those who are on clinical grounds best suited for Bronchial Thermoplasty.

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Dr. Ahmad has been practicing pulmonary, critical care and sleep medicine in Lee County since 2004. He has extensive clinical and academic experience and believes in a proactive approach to healthcare. His post-graduate training took place at the following well-respected institutions: Harvard University, Cornell University, State University of New York at Brooklyn and the University of Mississippi.

References: