

EXPERIENCE WITH BRONCHIAL THERMOPLASTY IN A PENINSULAR MALAYSIA STATE

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[WCBIP] Bronchial thermoplasty for asthma

Presentation Preference: Either

Case Report: YES

Background: Bronchial thermoplasty (BT) is a novel treatment modality reserved for severe refractory asthma where radiofrequency ablation of airway smooth muscle results in a reduction of bronchoconstriction during an exacerbation. In our clinical case series we present three patients with severe refractory asthma who had undergone BT.

Case report: The first patient was a 22-year-old female college student who suffered with asthma since childhood associated with an extensive history of allergies, rhinitis and gastro-oesophageal reflux disease. She had regular exacerbations with repeated endotracheal intubations. Her Asthma Control Test (ACT) score ranged between 9-15 with an FEV1 averaging at 40% predicted. She was on maximal asthma therapy including omalizumab. The second patient was a 56-year-old female retired storekeeper who suffered with adult asthma. She too had regular exacerbations with a history of endotracheal intubation. Her ACT score was similarly off-target with an FEV1 averaging at 60% predicted. She was on maximal asthma therapy, requiring frequent courses of rescue oral corticosteroids. The third patient is a 24-year-old dental nurse who suffered with asthma since adolescence with associated allergic rhinitis. She had regular exacerbations requiring intensive care admissions resulting in multiple sick days. Her ACT score was consistently below 10. They had undergone 3 sessions of BT under general anaesthesia at 3 weeks apart. All three patients had post-procedure exacerbations which responded to standard medical therapy. The first and third patients responded well to BT with normalisation of their ACT score and discontinuation of oral corticosteroids. The second patient had not fared as well where she continued to suffer with exacerbations but not as frequently and she had not required endotracheal intubation since.

Conclusions: BT is designed as an adjunct therapy rather than replacing standard treatment in severe refractory asthma. It has been shown to improve asthma symptoms, quality of life and reduce exacerbations. In our limited experience, treatment outcome has been rather mixed which may indicate the need for a better patient selection criteria to identify those who will benefit most from BT.