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LUNG ALERT

Bronchial thermoplasty may improve asthma control up to 12 months after treatment

▲ Cox G, Thomson NC, Rubin AS. Asthma control during the year after bronchial thermoplasty. *N Engl J Med* 2007;**356**:1327-37

This randomised controlled study was designed to assess the efficacy of bronchial thermoplasty up to 12 months after treatment. Participants had moderate to severe persistent asthma and were receiving treatment with inhaled corticosteroid and long acting β agonist (LABA) inhalers. Only patients with worsening asthma control after temporary withdrawal of the LABA inhaler were eligible for entry. One hundred and twelve subjects were enrolled; 56 subjects received three treatments of bronchoscopic thermoplasty over 6 weeks in addition to their usual treatment. No sham bronchoscopies were administered to the control group. All subjects were assessed at 3, 6 and 12 months. Assessments at 6 and 12 months were performed after the withdrawal of LABA inhaler treatment. The primary outcome measure was the frequency of mild exacerbations.

At 12 months, only the bronchial thermoplasty group showed a significant reduction in mild exacerbations (0.18 (SD 0.31) per patient per week compared with 0.35 (0.32) at baseline). Compared with the control group, secondary endpoints including morning peak expiratory flow rate, asthma quality of life questionnaire score, symptom free days and symptom scores showed significantly greater improvements. Adverse events were significantly higher in the thermoplasty group during their 6 weeks of treatment.

The authors conclude bronchial thermoplasty in patients with moderate to severe persistent asthma results in an improvement in asthma control with benefits persisting at 1 year. This result was observed after a reduction in asthma maintenance treatment. However, the benefit of any reduction in the number of mild exacerbations seemed to be outweighed by the side effects of treatment and duration of hospital stay required for the procedures. It would be interesting to study the efficacy of bronchial thermoplasty in comparison with stable treatment with inhaled corticosteroid and LABA inhalers, which may be associated with fewer adverse effects.

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