

## All That Wheezes Is Not Asthma

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A 37-year old man was evaluated for severe asthma. Computed tomography of the chest revealed diffuse, end-expiratory tracheal narrowing (images A and B), suggesting severe tracheobronchomalacia. End-inspiration (image A) showed a slightly crescent-shaped yet widely patent trachea (red arrow). At end-expiration (image B), the trachea (red arrow) demonstrated severe dynamic collapse. In images A and B, the esophagus is identified (blue arrow). Tracheobronchomalacia was confirmed bronchoscopically (images C and D). During inspiration, a relatively normal tracheal diameter and distally visible main carina were seen (image C). During forced expiration (image D), flattening of the cartilaginous tracheal rings anteriorly and anterior bowing of the posterior tracheal wall occurred, producing airway collapse. The main carina was no longer visible secondary to near complete closure of the airway. Silicone Y stent placement improved symptoms and spirometric values, prompting tracheobronchoplasty evaluation.

Tracheobronchomalacia is characterized by excessive dynamic airway collapse due to weakening of tracheal or bronchial cartilaginous support. The true incidence of tracheobronchomalacia remains undefined; however, patients' symptoms are commonly misclassified as asthma or chronic bronchitis.<sup>1</sup> Diagnosis is confirmed with radiographic imaging and bronchoscopy. Suspected tracheobronchomalacia requires referral and evaluation by trained interventional pulmonologists, thoracic surgeons, or both. (doi:10.7556/jaoa.2013.009)

### Reference

1. Carden KA, Boiselle PM, Waltz DA, Ernst A. Tracheomalacia and tracheobronchomalacia in children and adults: an in-depth review. *Chest*. 2005;127(3):984-1005.

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