

obstruction on spirometry that varies over time or reverses in response to a bronchodilator) or exclude it with certainty (a negative response to a bronchoprovocation challenge—e.g., with methacholine). In a patient capable of taking reliable measurements, home expiratory peak flow monitoring can be a cost-effective method to support or discount a diagnosis of asthma.

Eosinophilic bronchitis causes chronic cough with a normal chest radiograph. This uncommon condition is characterized by sputum eosinophilia in excess of 3% without airflow obstruction or bronchial hyperresponsiveness and is successfully treated with inhaled glucocorticoids. Measurement of an elevated concentration of nitric oxide in exhaled breath has the potential to detect eosinophilic airway inflammation (in asthma or eosinophilic bronchitis) and predict a favorable response to inhaled steroids in persons with chronic cough.

Treatment of chronic cough in a patient with a normal chest radiograph is often empirical and is targeted at the most likely cause(s) of cough as determined by history, physical examination, and possibly pulmonary function testing. Therapy for postnasal drainage depends on the presumed etiology (infection, allergy, or vasomotor rhinitis) and may include systemic antihistamines; decongestants; antibiotics; nasal saline irrigation; and nasal pump sprays with glucocorticoids, antihistamines, or anticholinergics. Antacids histamine type 2 (H_2) receptor antagonists, and proton pump inhibitors are used to neutralize or decrease the production of gastric acid in gastroesophageal reflux disease; dietary changes, elevation of the head and torso during sleep, and medications to improve gastric emptying or impede the flow of refluxate (e.g., alginates) are additional therapeutic measures. Cough-variant asthma typically responds well to inhaled glucocorticoids and intermittent use of inhaled β -agonist bronchodilators.

Patients who fail to respond to treatment targeting the common causes of chronic cough or who have had these causes excluded by appropriate diagnostic testing should, in the opinion of the author, undergo chest CT. Diseases causing cough that may be missed on chest x-ray include tumors, early interstitial lung disease, bronchiectasis, and atypical mycobacterial pulmonary infection. On