



A Unique Case of Chronic Cough

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A 49-year-old man with a history of coronary artery disease presented to pulmonary clinic with a progressive chronic cough that started 1 year previously, associated with scant hemoptysis and recent onset dyspnea on exertion. He denied smoking, fevers, night sweats, and weight loss. Results of the physical examination were unremarkable. Chest computed tomography (Figure 1) showed a large longitudinal filling defect. Follow-up bronchoscopy revealed several large wart-like nodular lesions on the vocal cords and in the trachea (Figure 2), causing severe tracheal narrowing. The lesions were removed with electrocautery and snare to ensure near complete patency of trachea. Pathology results of the tracheal lesions returned with squamous papilloma positive for human papilloma virus (HPV)-6 and 11, consistent with a diagnosis of diffuse laryngotracheal papillomatosis (LTP).

Diffuse LTP is the benign, neoplastic, papillomatous epithelial growth caused by HPV infection, most commonly HPV-6 and 11. Symptoms depend on the severity of the papillomas and include cough, dyspnea, voice change, and—rarely—stridor or upper-airway obstruction.¹⁻³ The diagnosis is made via direct visualization and biopsy.^{1,2} Unfortunately, the disease has a chronic course of recurrent papillomas.

The primary treatment is endobronchial debulking and debridement via

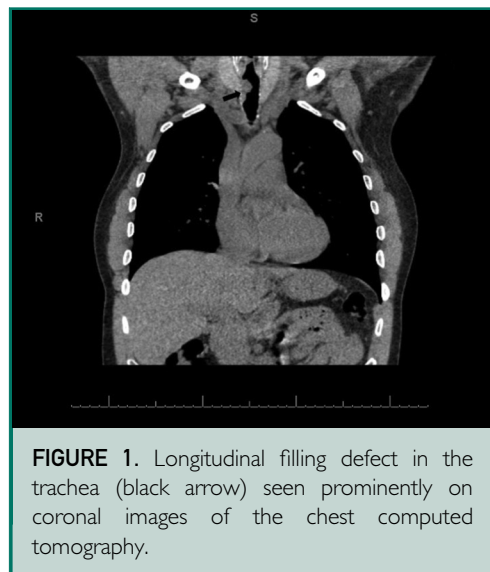


FIGURE 1. Longitudinal filling defect in the trachea (black arrow) seen prominently on coronal images of the chest computed tomography.

bronchoscopy, including microdebrider, electrocautery, argon plasma coagulation, and cryotherapy. The use of laser therapy has diminished owing to the concern for HPV transmission via the vapor plume.^{2,3} Recent advances in medical therapies for tracheal papillomatosis include HPV vaccination, cidofovir, and bevacizumab, with studies showing decreased tumor burden and increased intervals between therapeutic procedures after treatment^{4,5} (Supplemental Figures 1 and 2, available online at <http://www.mayoclinicproceedings.org>).

SUPPLEMENTAL ONLINE MATERIAL

Supplemental material can be found online at <http://www.mayoclinicproceedings.org>. Supplemental material attached to journal articles has not been edited, and the authors take responsibility for the accuracy of all data.

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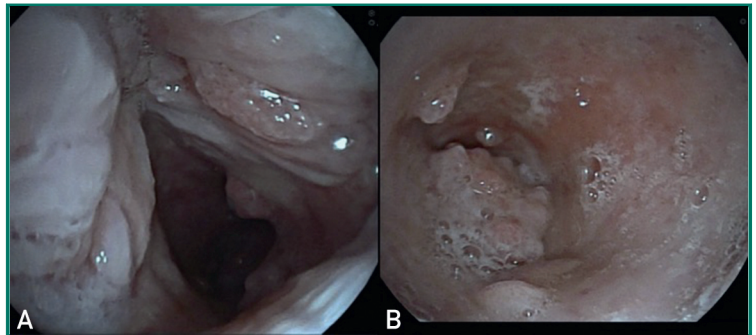


FIGURE 2. Bronchoscopic visualization of large, nodular papillomas on the vocal cords (A) and throughout the trachea (B), causing significant obstruction.

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