A 51-year-old female social worker presents with complaints of hoarseness and persistent cough. Her cough had been persistent since childhood and fluctuated throughout the year. She had been seen by many physicians including other otolaryngologists and pulmonologists. She had been diagnosed with multiple environmental allergies, allergic rhinitis, postnasal drip, bronchitis, gastroesophageal reflux, and asthma. Previous treatment with voice rest, steroids, antibiotics, inhalers, antihistamines, and nasal sprays had produced no improvement. Bronchoscopy, pulmonary function testing, and chest X-ray were all within normal limits. She had a distant 7 pack year smoking history and quit over 20 years prior to our evaluation.

Strobovideolaryngoscopy at her initial visit (see Figure 1) showed a left vocal fold hemorrhage which approached but did not involve the vocal fold edge, right Reinke edema, evidence of prior right vocal fold hemorrhage (scar and discoloration), muscle tension dysphonia, reflux laryngitis, and alternating paresis (right greater than left).

Initial treatment included obsolete voice rest to treat the acute vocal fold hemorrhage. She was seen in follow-up 1 week later, with resolution of voice complaints and improvement in the appearance of the left vocal fold (see Figure 2). She was then sent for further diagnostic testing including MRI of the vagus nerve course, laryngeal EMG, 24-hour pH impedance, and blood tests. She tested positive for *Bordetella pertussis* immunoglobulin G antibody with a level of 10 U/mL. She was treated with Biaxin 500 mg twice daily for 3 weeks, and her cough resolved.

*Bordetella pertussis* is a gram-negative bacteria that causes the clinical syndrome known as whooping cough. Although not generally tested for in a majority of chronic cough patients, prior studies show prevalence of serological evidence of *B pertussis* in patients with chronic cough (>2 weeks) ranging from 12% to 26%. The incidence of reported cases of pertussis in the United States has increased steadily from 1980 to 2012. Although that number of reported cases has decreased in the past several years, the actual incidence of pertussis in patients...
with chronic cough may be higher than recognized due to the paucity of testing and reporting.\textsuperscript{3} \textit{Bordetella pertussis} can be diagnosed with serum testing by polymerase chain reaction (PCR), culture, or serological testing.\textsuperscript{4} Culture remains highly specific, though PCR and serology are more sensitive. Polymerase chain reaction is more useful in early stages of the infection, and serologic testing is more helpful in later stages.\textsuperscript{5} Current recommendations for prevention from the Center for Disease Control and Prevention are for all adults ages 19 and older to receive a booster vaccination against \textit{B pertussis} one time as part of the Tdap (tetanus toxoid, reduced diphtheria toxoid, and acellular pertussis) vaccine in place of the Td (tetanus toxoid, reduced diphtheria toxoid) booster recommended every 10 years.\textsuperscript{6}

The recognition of pertussis is important not only to our patients who present with chronic cough but also to those who may potentially be exposed to pertussis as a result of misdiagnosis. In the senior author’s (R.T.S.) practice, it is now routine to test patients with chronic cough for \textit{B pertussis} because of the frequency with which it has been diagnosed and treated successfully. As the incidence of pertussis has risen in recent years in the United States, we argue that adult patients presenting with chronic cough should undergo pertussis testing as part of a complete diagnostic assessment.

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