Transnasal upper gastrointestinal endoscopy in detection of gastroesophageal reflux disease induced vocal cord polyp.

Transnasal endoscopy is a well-tolerated technique in assessing the upper gastrointestinal tract. Gastroesophageal reflux disease (GERD) is a well-recognized factor for inducing upper airway symptoms and signs. We report a patient with GERD and upper airway symptoms, found to have a vocal cord inflammatory polyp and posterior laryngitis with GERD, via transnasal endoscopy. He was treated with conventional therapy for GERD and polyp excision by the Ear, Nose and Throat (ENT) Surgeon. This report further emphasizes the benefit of a transnasal route in diagnosing GERD and its associated upper airway pathology.

A 38 year-old gentleman presented with a long-standing history of heartburn, epigastric discomfort after meals and a recent history of nocturnal cough with episodes of choking and hoarseness of voice. He was not on any medication and had no known allergies. On examination he was mildly obese with a normal general and systemic examination. Initial laboratory investigations revealed normal hemogram, liver and thyroid function tests. He had transnasal esophageo-gastroduodenoscopy (Pentax-EG-1840 with 6 mm distal diameter and 2 mm diameter of instrument channel) that revealed the presence of pharyngeal congestion with a vocal cord polyp (Figure 1). There was grade III GERD with gastritis. Gastric antral biopsies revealed the presence of chronic gastritis associated with Helicobacter pylori. He was treated with triple therapy (lansoprazole, amoxicillin and clarithromycin) for one week, following which, he was maintained on lansoprazole 30 mg BD and cisapride 10 mg TDS. He was referred to the ENT surgeon, who removed the polyp to rule out the possibility of dysplastic changes. Review of the histology of the polyp revealed that it was benign with granulation tissue secondary to chronic acid reflux. He was asymptomatic on the medical therapy after a follow-up of 3 months.

Respiratory or laryngeal symptoms may be the initial manifestations of esophageal disease or oropharyngeal swallowing disorders.[1,2] Gastroesophageal reflux may also trigger coughing and wheezing via the vasovagal reflex.[3] Aspiration at the time of swallowing will cause coughing, choking and eventual hoarseness. In addition to this, patients with motor disorders or GERD may regurgitate esophageal or gastric contents up into the larynx and subsequently aspirate. These patients

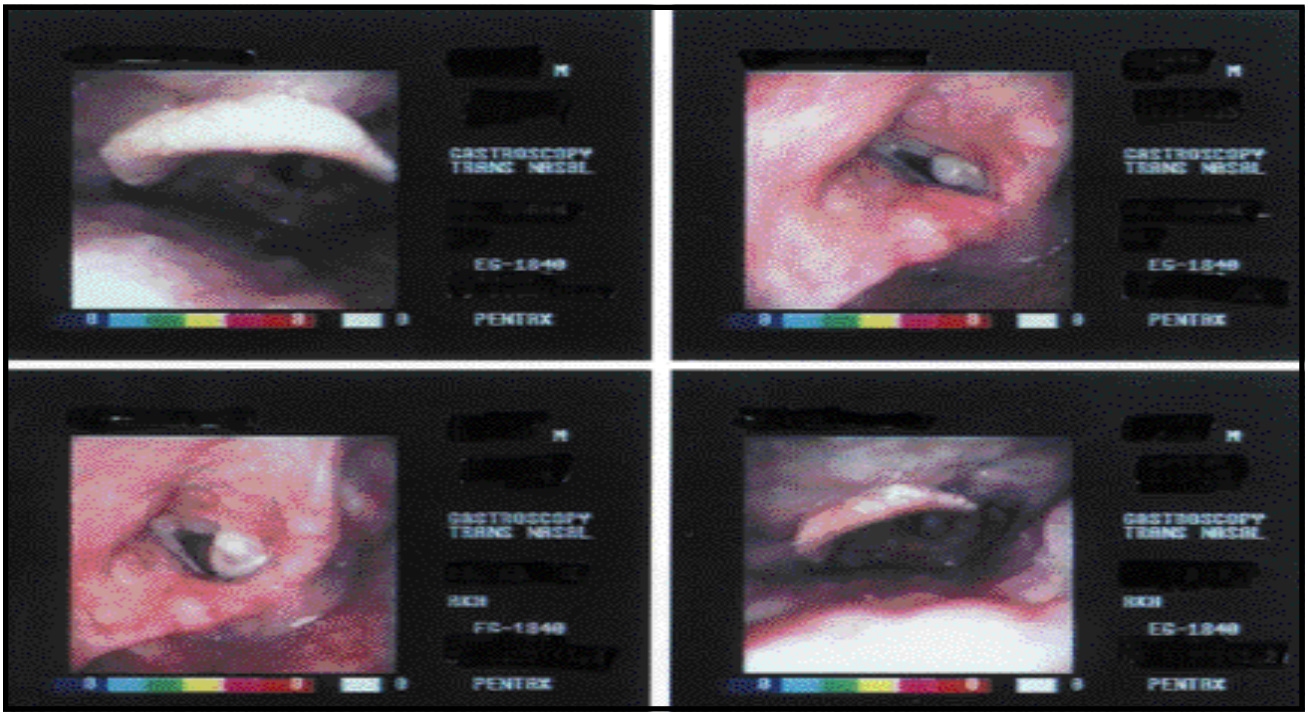

Figure 1 - A formatted set of frames showing the different views of the vocal cord polyp as seen through the transnasal endoscope.

may present with pneumonia, chronic cough, wheezing, hoarseness and posterior laryngitis.[2] In posterior laryngitis, there is substantial evidence that suggests its relationship with acid reflux, including contact ulceration and granuloma formation on the vocal folds[4,5] with recovery from chronic laryngitis after therapy for reflux disease.[1,6] A carefully taken history can be extremely helpful in patients with potential esophageal disease. Transnasal pharyngoesophago-gastroduodenoscopy, was reported first by Reza Shaker in 1994[7], as the most well-tolerated method in evaluating patients with esophageal symptoms. Subsequent published reports emphasized the usefulness of this unsedated technique in examining the upper gastrointestinal tract, thereby reducing its cost and avoiding the potential complications of sedation.[8-10]

Al-Karawi suggested that the transnasal route is better tolerated by the patient, whilst at the same time, it is safe and feasible. It also offers the advantage that the patient can speak and communicate freely with the endoscopist. It also has the ability to give a better view of the posterior larynx and vocal folds.[11]

To our knowledge, this is the first case of posterior laryngitis with vocal cord polyp diagnosed by transnasal esophago-gastroduodenoscopy in patients with GERD. It is estimated that 10% of the general population have symptoms of GERD[12] and about 30% of patients with upper airway disease have reflux.[2] Thus, taking a careful history and performing a thorough physical examination in patients with esophageal or oropharyngeal symptoms, would better guide the endoscopist towards the route to be adopted. In this patient, the history of hoarseness and choking led the endoscopist to choose the transnasal approach. It has better access in visualizing the posterior larynx and the upper airway and is also an excellent tool in visualizing the esophageo-gastric junction.

The transnasal route in endoscopy is valuable in diagnosing posterior laryngeal lesions and GERD. It helps in the management of patients with esophageal and laryngeal symptoms.

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