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LARYNGOPHARYNGEAL REFLUX (LPR)

Who suffers from reflux?

Most of us have a clear picture of the typical patient with "reflux." This includes a slightly overweight, sedentary person with a history of burping, heartburn, and gastric pain, usually associated with meals.
Is it possible that your otherwise healthy, active child may suffer from reflux? New evidence demonstrates that that may, in fact, be the case. Interestingly, children with reflux do not have typical symptoms that you might expect. When people hear the word "reflux" they usually think of gastroesophageal reflux disease (GERD) referring to stomach acid refluxing into the esophagus (swallowing tube). Reflux that causes damage to the esophagus or symptoms such as heartburn is known as gastroesophageal reflux disease (GERD).

How does GERD compare to LPR?

Although children may have GERD, we now believe many children suffer with laryngopharyngeal reflux (LPR). LPR causes symptoms you may not ordinarily associate with reflux. The vast majority of patients will LPR do not have heartburn. They usually do not complain of stomach ache or have pain associated with meals which is typical for GERD. Patients that have LPR are predominantly daytime refluxers although they can have symptoms at night. The length of exposure of acid in LPR is also shorter than GERD. In addition, the primary defect in GERD is thought to be failure of the lower esophageal sphincter keeping stomach acid from entering the esophagus whereas in LPR the primary defect is thought to be the upper esophageal sphincter allowing acidic fluid to backflow into the back of the throat and back of the nose.

What are the symptoms of LPR?

Symptoms of LPR, especially in children, can be very nonspecific and in many times puzzling. Symptoms include:

- Hoarseness
- Chronic throat-clearing, excessive mucous
- Chronic cough
- Stridor (noisy breathing)
- Difficulty swallowing
- "Lump in the throat "(globus)
- Reactive airway disease (wheezing)
- Chronic bronchitis
- Chronic airway obstruction
- Wheezing
- Apnea
- Aspiration pneumonia
- Nasal obstruction
- Ear pain
- Chronic nasal congestion
- Sore throat
- Gagging

These symptoms are also related to many conditions thought to be aggravated or caused by LPR. These conditons include:

- Otitis media (ear infections)
- Sinusitis
- Chronic nasal congestion
- Vocal cord nodules
- Chronic laryngitis
- Laryngomalacia
- Apnea
- Subglottic stenosis
- Arytenoid fixation
- Laryngospasm
- Recurrent pharyngitis
- Chronic cough
- Exacerbation of asthma or reactive airway disease

What is the treatment for LPR?

A child with LPR may be treated with antibiotics for other conditions including ear infections (otitis media), sinus infections (sinusitis), and sore throats (pharyngitis). The first hint that your child may have LPR may be the failure of standard antimicrobial therapy or allergic therapy. However, because otitis media, sinusitis and allergic rhinitis are very common in children, it is important to rule out these conditions prior to moving to rule out a diagnosis of LPR.

How is LPR diagnosed?

The diagnosis of LPR is made by demonstrating that there is acid reflux into the back of the throat. The "gold standard" for testing of LPR is by double lumen PH probe monitoring for 24 hours measuring acid reflux both into the swallowing tube and into the back of the throat. Sometimes barium studies (X-ray test) and esophagoscopy (scope looking at swallowing tube) can be used to evaluate the swallowing tube for related conditions.
The ENT can observe the larynx (voice box) for local changes typically associated with LPR by using a flexible laryngoscope.

In addition, some physicians will use biopsy as a means for identifying changes in the lining of the throat that correspond to chronic irritation due to reflux. There is also a non-acidic reflux that may be present in some children who would not be picked up by PH probe or biopsy and new studies are underway to determine whether a different type of probe can be used to identify these particular children.

What are the treatments for LPR?

Once LPR is diagnosed, principal therapy remains the administration of proton pump inhibitors (PPIs). These drugs stop the production of acid in the stomach, therefore reducing the amount of acid that is refluxed into the throat. Within two to three months of treatment, most patients will report reduction in their symptoms due to LPR. However, many patients will show symptomatic improvement within three to four weeks. The length of treatment currently is somewhat controversial although it is clear that at least six months of therapy is necessary to see resolution of laryngeal damage caused by LPR. Therefore, a minimum treatment of six months is recommended in patients with LPR. After six months, PPI therapy can be weaned off if the symptoms have resolved. The most important aspect of GERD and LPR is to consider them when a child has recurrent upper respiratory illnesses.