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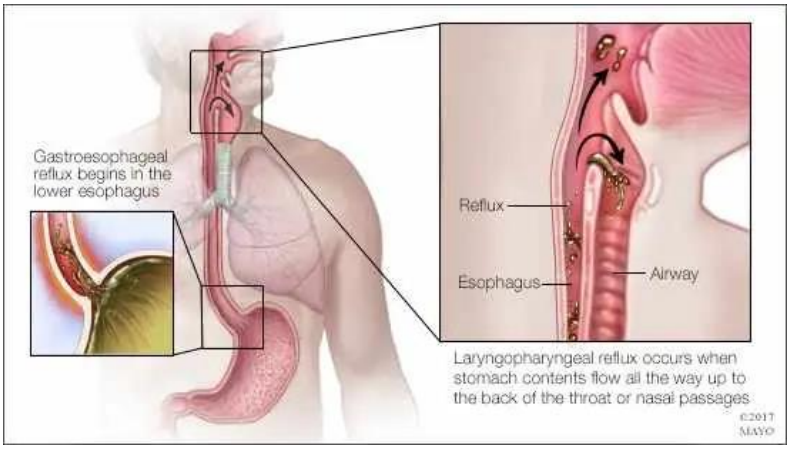
Laryngopharyngeal Reflux (LPR)

What is reflux?

- Reflux refers to stomach acid that travels "backwards" from the stomach up the esophagus and possibly into the throat (larynx)
- GERD (gastro-esophageal reflux disease) is caused by reflux of gastric contents into the esophagus and involves symptoms such as heart burn, regurgitation or difficulty swallowing (dysphagia). GERD is often evaluated and managed by a GI doctor (gastro-enterologist)
- LPR (laryngopharyngeal reflux), on the other hand, is caused by reflux of gastric contents all the way up the esophagus and into the throat (larynx). Because the esophageal lining is able to withstand irritation from reflux more effectively than the lining of the throat, patients can experience isolated LPR symptoms without experiencing GERD symptoms.

What are symptoms of LPR?

- Common symptoms of LPR include:
    - Sensation of excessive mucus in the throat
    - Feeling of something stuck in the throat (globus sensation)
    - Excessive throat clearing
    - Chronic cough
    - Post-nasal drip
    - Sore throat
    - Hoarseness
    - Changes in vocal range/early fatigue of the voice (especially for singers)



- These symptoms may be more common in the morning, since stomach acid can more easily pass into the throat while laying flat overnight

What causes LPR?

- Reflux is often caused by a weak lower esophageal sphincter, which allows stomach acid to more easily travel backwards up the esophagus and into the throat
- Multiple components of the stomach acid, such as bile and digestive enzymes, in addition to the acid, can cause irritation of the throat lining (mucosa)
- However, diet and lifestyle also play a major role in increasing susceptibility to reflux

Diagnosis of Reflux:

- Reflux is primarily diagnosed clinically by a patient's clinical history and symptoms

- A flexible laryngoscopy is often performed to directly evaluate the throat when patient's present with symptoms consistent with LPR in the office
- We sometimes see redness and swelling in the throat to strengthen our suspicion of LPR on laryngoscopy, but the exam can be normal as well
- Additional testing for reflux includes a specialized study called a pH study with impedance, but this is rarely needed, as it doesn't change our management plan and is uncomfortable for patients

LPR Management:

- By far, the most impactful treatment for LPR involves changes to diet and lifestyle, which include:

<u>Dietary modifications:</u>

- Limit caffeine to one cup daily in the morning. Eliminate carbonated beverages altogether
- Reduce or eliminate intake of spicy, greasy and fatty foods (e.g. fried foods)
- Reduce or eliminate alcohol, especially late in the evening
- Avoid tomatoes, onions and garlic as much as possible. These are surprisingly acidic
- Avoid citrus fruits and juices such as oranges, grapefruits, limes and lemons
- Avoid chocolates and mints

<u>Lifestyle modifications</u>

- Quit smoking
- Do not eat/drink anything but water within 2-3 hours of bedtime
- If your throat symptoms are worse in the morning, place your bed on an incline. Raise the head of the bed 4-6 inches by placing hardcover books, wood planks etc under the headboard. Sleeping with an extra pillow is not a substitute for this intervention

<u>Medications</u>

- The most common medications for reflux are proton pump inhibitors (PPIs), which include Nexium, Prevacid, Protonix, Prilosec and their respective generics
- These medications may be prescribed for you. While symptoms of GERD (eg heart burn) often resolve within 4-6 weeks of PPI use, LPR often take longer to resolve
- Reflux medications are an adjunct to dietary measures to help improve symptoms more quickly, and are not a good long term solution (long term use of PPIs is associated with increased risk of osteoporosis, *C diff* colitis and community acquired pneumonia; these usually are considerations with <u>years</u> of use)
- We often start with a course of 40mg omeprazole daily for 3 months as an initial treatment plan, to be taken in addition to implementing the dietary and lifestyle changes listed above
- If you are already taking a PPI, we may increase the dose, or consider adding an alternative reflux medication like an H2 blocker (famotidine 20mg 1-2 times daily). An H2 blocker can also be considered as an alternative to a PPI as initial therapy.
- These H2 blockers can also be useful as we wean off a PPIs and are better tolerated for long term use
- Lastly, OTC antacids like TUMS, Maalox, Mylanta etc are helpful to use before and after triggering meals, though these are more effective for heartburn than LPR

Do I have to do this forever?

- Once we get your throat symptoms under better control, we can start to wean off the implemented changes (medication first, then diet normalization) and assess for symptom recurrence
- You may need to maintain a "reflux safe" diet permanently to avoid symptom recurrence. The "Acid Watcher Diet" by Dr. Jonathan Aviv is an excellent resource for reflux dietary guidance and is available on Amazon.
- A quick summary can be found by searching for ENT SURREY LPR SAFE DIET on an internet search engine