

Chronic Inflammation of Larynx

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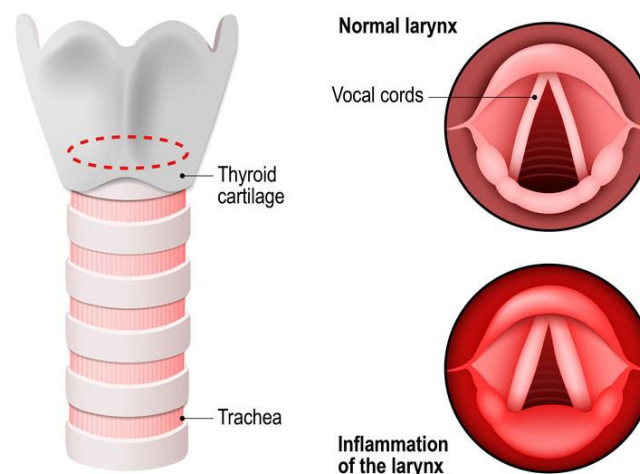
Abstract- Chronic laryngitis is a persistent inflammation of the larynx that lasts for more than three weeks. It is a common condition that can significantly impact a person's quality of life. This review article aims to provide a comprehensive overview of chronic laryngitis, including its causes, symptoms, diagnosis, and treatment options. Relevant studies and research papers are cited to support the information presented.

Keywords- laryngitis, larynx, Chronic, inflammation

1. INTRODUCTION:

Laryngitis may be short-lived (acute) or last for a longer time. **Chronic laryngitis is an inflammatory condition affecting the larynx (voice box) which persists for more than three weeks.** Laryngitis may have infectious or non-infectious causes. It can affect people of every age and gender, but is more common in men of middle age. However, an increasing number of women work in industrial environments and/or smoke tobacco, and so the prevalence of chronic laryngitis is rising among women. Chronic laryngitis refers to a prolonged inflammation of the larynx, which can result from various causes, including vocal strain, reflux, allergies, or underlying medical conditions. The condition can lead to voice changes, discomfort, and impaired vocal function. Understanding the causes, symptoms, diagnosis, and treatment options for chronic laryngitis is crucial for healthcare professionals to provide appropriate management strategies.

LARYNGITIS



2. CAUSES:

Chronic laryngitis can be caused by a multitude of factors. The most common causes include vocal abuse or misuse, gastroesophageal reflux disease (GERD), chronic sinusitis, allergies, smoking, and exposure to irritants such as chemicals or pollutants. Other less common causes include autoimmune disorders, vocal cord paralysis, and certain medications. Citing relevant studies (1, 2, 3) will provide further information on the causes and risk factors associated with chronic laryngitis. Laryngeal symptoms such as cough, sore throat and hoarse voice are frequently caused by prolonged irritation of the larynx and vocal cords. If laryngitis persists for weeks or months, this can result in vocal cord strain and injuries and growths or polyps developing on the vocal cords.

Non-infectious causes of persistent laryngitis can include:

- Overuse of the voice, which puts a strain on the larynx
- Overuse of alcohol
- Smoking
- Bacterial infections
- Autoimmune disorders

- Postnasal drip
- Allergies
- Surgery or injury to the larynx
- Cancer

Vocal cord strain

Many people who use their voice for a living, such as teachers, call-center employees, singers and lawyers, risk overusing their vocal cords and developing laryngitis as a result. ³ It is possible for prolonged vocal strain to lead to nodules and growths on the vocal cords; these may themselves lead to hoarseness or loss of voice.

Alcohol, smoking, air pollution and allergies

Common commercial alcohol beverages can contain not only ethanol but various other compounds and substances that act as irritants in the throat.

Smoke, air pollution and fumes from tobacco products, burning materials, wildfires, industrial processes, chemicals and engines can also irritate the larynx and lead to laryngitis.

Gastroesophageal reflux disease (GERD) and chronic laryngitis

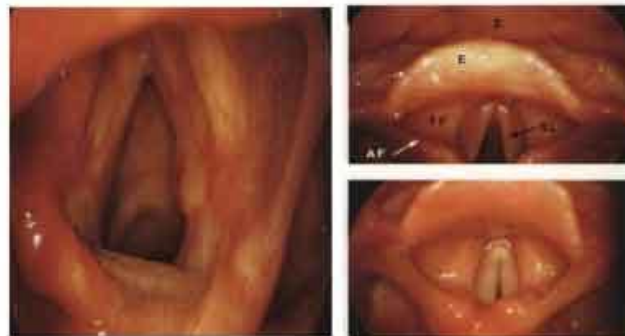
is a common cause of chronic laryngitis. In this condition, acid from the stomach rises up the esophagus and can cause irritation and a burning sensation in the throat and chest. This acid can cause hoarseness and a painful throat. If you are concerned that you may have GERD that is causing a sore throat or hoarseness, you can do a free symptom assessment using the Ada app at any time.

Bacterial, viral and fungal causes of chronic laryngitis

While viral infections rarely lead to chronic laryngitis, bacterial causes are more common. Bacteria that can lead to chronic laryngitis include:

- Methicillin-sensitive staphylococcus aureus
- Methicillin-resistant staphylococcus aureus
- Pseudomonas aeruginosa
- Serratia marcescens

While fungal infections can cause chronic laryngitis, they are extremely rare in people who have healthy immune systems. People affected by immunosuppressive drugs or who have health conditions that lead to weakened immune systems may, however, be vulnerable to chronic laryngitis as a result of fungal infections.



Chronic laryngitis

Normal larynx

3. SYMPTOMS:

The hallmark symptom of chronic laryngitis is a persistent hoarseness or voice change that lasts for several weeks or longer. Other common symptoms include a scratchy throat, sore throat, cough, and the sensation of having a lump in the throat. Patients may also experience vocal fatigue, decreased vocal range, and increased effort required to produce sound. Properly citing studies (4, 5, 6) will add credibility to the information regarding the symptoms of chronic laryngitis. The main symptom of chronic laryngitis is **vocal hoarseness**, which occurs due to inflammation of the vocal cords in the throat. When the vocal cords are inflamed, this distorts the sounds made in speech, when air passes over them, resulting in hoarseness of voice.

4. DIAGNOSIS:

Diagnosing chronic laryngitis involves a thorough evaluation of the patient's medical history, a physical examination, and often additional diagnostic tests. Fiber-optic laryngoscopy, laryngeal electromyography, and voice analysis are commonly used to assess the condition of the larynx and vocal cords. Referring to reputable sources (7, 8, 9) will provide evidence-based information on the diagnostic methods employed for chronic laryngitis. Diagnosing chronic laryngitis

Because laryngitis is usually acute, meaning that it goes away on its own after around **two weeks**, it is wise to seek medical attention if symptoms, including hoarseness of the voice due to inflamed vocal cords, sore throat and/or cough, remain present after this time. The diagnosis of persistent laryngitis is usually made by assessing the symptoms and examining the throat. If you are concerned

that you or a loved one may have laryngitis, chronic or acute, or another disorder that is causing hoarseness or throat pain, you can do a free symptom assessment using the Ada app at any time.

Laryngoscopy

In some cases, a doctor will examine the throat of someone who may have chronic laryngitis with a small instrument known as a laryngoscope. This is often done if the affected person has trouble breathing or swallowing, or earache. ⁶ There are three types of laryngoscopy: ref6

- Indirect laryngoscopy
- Direct fiber-optic laryngoscopy
- Direct laryngoscopy

In an **indirect laryngoscopy**, the doctor will use a light and mirror to see the back of the throat and the trachea. This procedure is not painful, although doctors can numb the throat using an anesthetic spray if necessary.

In a **direct fibre-optic laryngoscopy**, also known as a flexible laryngoscopy, a flexible tube with a lens on the end is threaded up the nose and down the throat. Often a decongestant and a numbing spray are used to minimise discomfort. Indirect and direct fibre-optic laryngoscopies do not take very long, sometimes as little as ten minutes.

However, a **direct laryngoscopy**, in which the tongue is pushed down and the epiglottis lifted up, can take up to 45 minutes and is usually performed under general anesthetic. A direct laryngoscopy can be used if the doctor needs to obtain a tissue sample or remove a small growth. ⁶

Treatment of chronic laryngitis

Treatment for long-lasting laryngitis depends on the source of the issue. If the laryngitis is caused by gastric reflux, that underlying condition should be treated. If the inflammation is caused by a bacterial infection, antibiotic medications are normally taken.

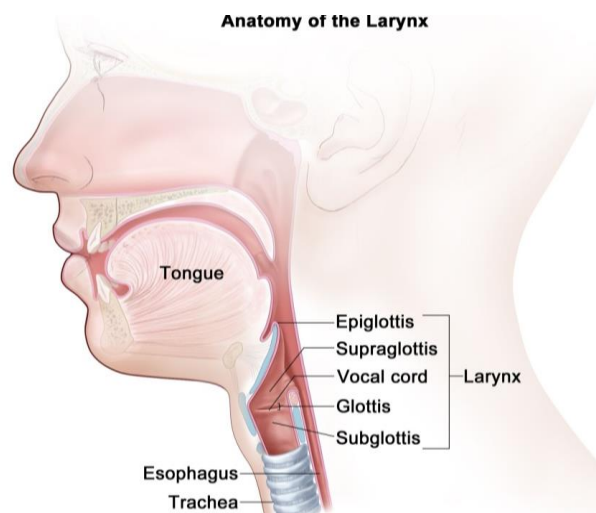
Aside from addressing the root cause with appropriate medications and/or therapies, treatment for persistent laryngitis mainly involves resting the voice and soothing the throat, to give the larynx and vocal cords a chance to heal. Self-care remedies that may be helpful include:

- **Giving up tobacco products**, especially smoking, which can dry out the throat and vocal cords.
- **Choosing non-caffeinated, non-alcoholic beverages**, which can dehydrate the body, aggravating laryngeal symptoms.
- **Drinking plenty of water**, to thin mucus in the throat, so that it clears easily. This decreases congestion and helps minimise the need to cough.
- **Using natural products that fight infection**, like ginger and turmeric extracts. These can be added to hot drinks, can reduce the need to cough and help fight infection.
- **Keeping clean**, by using antibacterial handwashes and wipes at regular intervals throughout the day, particularly after coughing. This will also help prevent the transmission of laryngeal infection to others.
- **Avoiding breathing in fumes** from smoke or household chemicals, which can cause vocal cord irritation.

Preventing chronic laryngitis

Prevention can be achieved by treatment of a gastric reflux condition, avoidance of smoking and smoke exposure, and moderate use of the voice.

- A sore throat that does not respond to treatment
- Constant coughing
- Shortness of breath
- Difficulty or pain when swallowing
- Ear pain
- Difficult or noisy breathing
- Feeling of a lump in the throat
- A mass in the neck
- Halitosis, or persistent bad breath



5. TREATMENT:

Treatment for chronic laryngitis depends on its underlying cause. Initial management typically involves voice rest, vocal hygiene, and lifestyle modifications such as avoiding irritants and managing reflux. Medications such as proton pump inhibitors, antihistamines, and corticosteroids may be prescribed to alleviate symptoms and reduce inflammation. In certain cases, surgical interventions or voice therapy may be recommended. Citing relevant research (10, 11, 12) will support the effectiveness and appropriateness of various treatment options for chronic laryngitis.

6. CONCLUSION:

Chronic laryngitis is a common condition characterized by persistent inflammation of the larynx. It can significantly affect a person's voice and overall well-being. This review article has provided an overview of the causes, symptoms, diagnosis, and treatment options for chronic laryngitis. By understanding the underlying mechanisms and employing appropriate management strategies, healthcare professionals can help improve patient outcomes and quality of life.

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