



NON EROSIIVE REFLEX DISEASE (NERD), EROSIIVE ESOPHAGITIS, BARRETT'S ESOPHAGUS, REFRACTORY GERD, EXTRA ESOPHAGEAL GERD, SILENT REFLEX, CAUSES, SYMPTOMS, DIAGNOSIS, TREATMENT OF GASTROPHAGEAL REFLEX DISEASE (GERD) AND RISKS AS WELL AS COMPLICATIONS OF GERD.

Vinayasree C.¹, Mohan Naidu K.² Muralinath E.², Amrutham Sandeep³, Venkat Naveen A² Guruprasad M⁴, Sravani Pragna K.²

¹College of Veterinary Science, Korutla, PVNRTVU, Telengana, India.

²College of veterinary science, Proddatur, Andhra Pradesh, India.

³Indian Veterinary Research Institute (IVRI), Izathnagar 243122 Barielly district, Utter Pradesh, India.

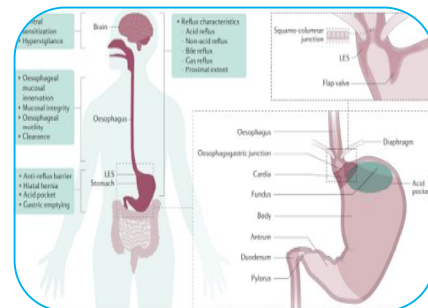
⁴Vaishnavi microbial Pvt. Ltd. Hyderabad. India.

Corresponding author

muralinathenamuri@gmail.com

ABSTRACT

Gastro esophageal reflex disease (GERD) is a chronic condition that influences millions of people worldwide. It is a disorder of the digestive system that happens if stomach acid or bile flows back into the esophagus, leading to occurrence of many uncomfortable symptoms. Different types of GERD are Non erosive reflex disease (NERD), Erosive esophagitis, Barretts esophagus, extra esophageal GERD and Silent reflex. NERD is the most common form of GERD, accounting for almost 60% of cases. Treatment for erosive esophagitis is linked to the lifestyle changes, medication and rarely surgical intervention. Treatment of Barretts esophagus is related to medication to control acid reflex and in a very few cases, endoscopic or surgical treatment is required. Refractory GERD is linked to the cases where symptoms continue in spite of appropriate medical treatment and lifestyle changes. Extra esophageal GERD exhibits the typical reflex symptoms of heart burn and regurgitation. Silent reflex shows its effect on the upper airway and can be manifested by symptoms namely chronic cough, hoarseness, sore throat, difficulty swallowing of the sensation of a lump in the throat. GERD occurs by a weakened lower esophageal sphincter (LES), the muscle essential for obstructing the back flow of stomach contents into the esophagus. Symptoms of GERD are heartburn, acid regurgitation, chest pain, dysphagia, chronic cough. The diagnosis of GERD is based on the upper endoscopy, esophageal pH monitoring, X-ray as well as barium swallow. Treatment of GERD is dependent on the lifestyle changes, medications (such as proton pump inhibitors). Nissen fundoplication carries certain risks along with infection, bleeding and adverse reactions to anesthesia.



KEYWORDS: Regurgitation, heartburn, non erosive reflex disease (NERD), erosive esophagitis, Barretts, esophagus, Refractory GERD, Extra esophageal GERD, Silent reflex, esophageal tissue

damage, ulcers, upper endoscopy, bleeding, narrowing of the esophagus (strictures), esophageal adeno carcinoma, acid reflux, surgical interventions, impedance testing, respiratory, laryngeal or oral symptoms, chronic cough, hoarseness, asthma-like symptoms, dental erosion, otolaryngology, pulmonology, laryngo pharyngeal reflex (LPR), lower esophageal sphincter (LES), Hiatal hernia, caffeine, alcohol, smoking, obesity, acid regurgitation, chest pain, dysphagia, upper endoscopy, esophageal pH monitoring, X-ray, Barium swollen, Hydrogen receptor blockers, proton pump inhibitors (PPI), fundoplication, LINX device placement, Laproscopic and open laparoscopic method, excessive gas and bloating and gas-bloat syndrome.

INTRODUCTION

Gastro esophageal reflex disease (GERD) is a chronic condition that affects millions of people worldwide. It is a disorder of the digestive system that occurs when stomach acid or bile flows back into the esophagus, causing various uncomfortable symptoms.

It occurs when stomach acid and other contents flow back into the esophagus, causing a variety of uncomfortable symptoms. While most people are familiar with the typical symptoms of GERD, such as heartburn and regurgitation, it is essential to recognize that there are different types of GERD that can manifest in various ways.

- 1.Non Erosive Reflex Disease
- 2.Erosive Esophagitis
- 3.Barrett's esophagus
- 4.Refractory GERD
- 5.Extra esophageal GERD
- 6.Silent reflex

1.Non-Erosive Reflex Disease (NERD):

Non-erosive reflex disease (NERD) is the most common form of GERD, accounting for approximately 60% of cases. As the name suggests, NERD is characterized by the absence of visible esophageal tissue damage, known as erosions or ulcers. Individuals with NERD often experience the classic symptoms of GERD, such as heartburn and regurgitation, but do not show any detectable signs of inflammation or injury during endoscopy or other diagnostic tests. NERD can be challenging to diagnose, and its underlying mechanisms are not yet fully understood.

2.Erosive Esophagitis:

Erosive esophagitis is a type of GERD manifested by the presence of erosions or ulcers in the lining of the esophagus. These visible signs of damage are typically detected during an upper endoscopy. Erosive esophagitis can cause more severe symptoms than NERD and may be associated with complications such as bleeding, narrowing of the esophagus (strictures), and Barrett's esophagus (a precancerous condition). Treatment for erosive esophagitis often involves lifestyle modifications, medication, and occasionally, surgical intervention.

3.Barrett's Esophagus:

Barrett's esophagus is a condition that can develop as a consequence of long-term untreated GERD. It occurs when the normal lining of the esophagus is replaced by abnormal cells resembling those found in the intestine. Barrett's esophagus is a significant concern because it increases the risk of developing esophageal adenocarcinoma, a type of cancer. Regular surveillance through endoscopy is essential to monitor any changes in the esophageal tissue. Treatment may involve medications to manage acid reflux and, in some cases, endoscopic or surgical interventions.

4.Refractory GERD:

Refractory GERD refers to cases where symptoms persist despite appropriate medical treatment and lifestyle modifications. These individuals may experience chronic and severe symptoms, impacting their quality of life. Refractory GERD can occur in individuals with both NERD and erosive esophagitis. Further diagnostic evaluations namely esophageal pH monitoring and impedance testing, can help identify underlying causes and guide additional treatment options, including surgery.

5.Extra esophageal GERD:

Extra esophageal GERD, also known as atypical GERD, manifests with symptoms outside the typical reflux symptoms of heartburn and regurgitation. Instead, it presents as various respiratory, laryngeal, or oral symptoms, such as chronic cough, hoarseness, asthma-like symptoms, or dental erosion. The relationship between these symptoms and GERD can be challenging to establish, and diagnosis often requires further investigations, such as pH monitoring, imaging studies, and evaluation by specialists in related fields, such as otolaryngology or pulmonology.

6.Silent reflux:

Also known as laryngopharyngeal reflux (LPR), this type of GERD primarily affects the upper airway and can be manifested by symptoms namely chronic cough, hoarseness, sore throat, difficulty swallowing, or the sensation of a lump in the throat. Unlike typical GERD, heartburn may be absent or less prominent in silent reflux.

Understanding the different types of GERD is crucial for accurate diagnosis and effective management. Non-erosive reflux disease (NERD), erosive esophagitis, Barrett's esophagus, refractory GERD, and extra esophageal GERD each present distinct challenges and treatment considerations. If you suspect you may have GERD, it is essential to consult with a healthcare professional for an accurate diagnosis and appropriate treatment plan tailored to your specific condition. Early intervention and lifestyle modifications can help manage symptoms and reduce the risk of complications associated with GERD.

CAUSES OF GERD:

GERD is primarily caused by a weakened lower esophageal sphincter (LES), the muscle responsible for obstructing the back flow of stomach contents into the esophagus. Several factors can contribute to the weakening of the LES, including:

1.Hiatal Hernia: This occurs when a portion of the stomach protrudes through the diaphragm into the chest cavity, putting pressure on the LES.

2.Diet and Lifestyle: Consumption of fatty, fried, or spicy foods, caffeine, alcohol, and smoking can trigger or exacerbate GERD symptoms.

3.Obesity: Excessive weight can put pressure on the abdomen, leading to the displacement of the stomach and compromising the function of the LES.

SYMPTOMS OF GERD:

GERD presents a range of symptoms that can significantly impact an individual's quality of life. The most common symptoms include:

1.Heartburn: A burning sensation in the chest, often assisted by regurgitation of stomach acid.

2.Acid Regurgitation: Sour or bitter-tasting fluid that rises from the stomach to the throat or mouth.

3.Chest Pain: Sharp or burning pain in the chest, often mistaken for a heart attack.

4.Dysphagia: Difficulty swallowing due to the narrowing of the esophagus caused by repeated acid reflux.

5.Chronic Cough and Hoarseness: Irritation of the throat caused by the regurgitated stomach acid.

DIAGNOSIS OF GERD:

To diagnose GERD, a healthcare professional will consider the patient's medical history, conduct a physical examination, and may recommend the following tests:

Upper Endoscopy: A flexible tube with a camera is inserted through the mouth to examine the esophagus and stomach, allowing for the detection of inflammation or other abnormalities.

Esophageal pH Monitoring: A probe is inserted into the esophagus to measure acid levels and determine the frequency of reflux episodes.

X-Ray and Barium Swallow: This test involves drinking a solution containing barium, which coats the esophagus, allowing for better visualization on an X-ray.

TREATMENT OPTIONS FOR GERD:

The management of GERD aims to alleviate symptoms, heal esophageal damage, and prevent complications. Treatment options may include:

Lifestyle Modifications: This involves adopting dietary changes, such as avoiding trigger foods, maintaining a healthy weight, and elevating the head while sleeping.

Medications: Over-the-counter antacids, H2 receptor blockers, and proton pump inhibitors (PPIs) can help reduce acid production and provide relief from symptoms.

Surgical Interventions: In severe cases or when medications and lifestyle modifications fail to provide relief, surgical procedures such as fundoplication (wrapping the upper stomach around the LES) or LINX device placement (a magnetic ring that reinforces the LES) may be recommended.

Nissen fundoplication is a surgical procedure commonly used to treat gastro esophageal reflux disease (GERD) and its associated symptoms. Here are some short notes on Nissen fundoplication:

Purpose: Nissen fundoplication aims to strengthen the lower esophageal sphincter (LES), a ring of muscle that normally prevents stomach acid from flowing back into the esophagus. It is performed to alleviate symptoms such as heartburn, regurgitation, and chest pain caused by GERD.

Procedure: During a Nissen fundoplication, the upper part of the stomach (fundus) is wrapped around the lower end of the esophagus, creating a tight valve that strengthens the LES. This wrapping prevents acid reflux and reduces the likelihood of stomach contents backing up into the esophagus.

Types: There are two main types of Nissen fundoplication: laparoscopic and open. Laparoscopic Nissen fundoplication is the most common approach and involves making several small incisions and using a laparoscope and specialized surgical tools. Open Nissen fundoplication requires a larger abdominal incision.

Recovery: After Nissen fundoplication, patients typically stay in the hospital for a few days. During the recovery period, a liquid or soft diet is gradually reintroduced. Full recovery may take a few weeks, during which time physical activity and lifting restrictions may be imposed to allow the surgical site to heal properly.

Effectiveness: Nissen fundoplication has been shown to be highly effective in relieving GERD symptoms and improving quality of life for many patients. It can significantly reduce or eliminate the need for medications such as proton pump inhibitors (PPIs) that are commonly used to manage GERD.

Risks and complications: As with any surgical procedure, Nissen fundoplication carries certain risks, including infection, bleeding, and adverse reactions to anesthesia. Complications specific to this procedure may include difficulty swallowing, excessive gas and bloating, and a condition called "gas-bloat syndrome" where the inability to burp or vomit can cause discomfort.

Follow-up care: Regular follow-up visits with the surgeon are necessary to monitor progress and address any concerns. In some cases, further adjustments or revisions may be required if symptoms persist or new issues arise.

Complications and Long-term Outlook:

Untreated or poorly managed GERD can lead to complications, including esophagitis (inflammation of the esophagus), strictures (narrowing of the esophagus), Barrett's esophagus (precancerous changes in the esophageal lining), and an enhanced risk of developing esophageal

cancer. However, with appropriate treatment and lifestyle modifications, most individuals with GERD can effectively control their symptoms and prevent complications.

CONCLUSION:

Gastro esophageal reflex disease (GERD) is a chronic condition that affects the functioning of the lower esophageal sphincter, leading to the backflow of stomach acid into the esophagus. By understanding the causes, symptoms, diagnosis, and treatment options available for GERD, individuals can work with doctors to effectively manage the condition and improve their quality of life. Early intervention and adherence to recommended lifestyle modifications are key to minimizing symptoms and preventing complications associated with GERD.

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