

# Review of Research

ISSN: 2249-894X Impact Factor : 5.7631(UIF)

Volume - 12 | Issue - 9 | June - 2023



SLIDING HIATAL HERNIA AS WELL AS PARA ESOPHAGEAL HERNIA, CAUSES AS WELL AS RISK FACTORS OF HIATAL HERNIA, SYMPTOMS, DIAGNOSIS AS WELL AS DIFFERENTIAL DIAGNOSIS OF HIATAL HERNIA AND TREATMENT AS WELL AS LIFE STYLE CHANFES OF HIATAL HERNIA.

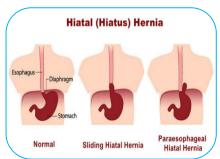
Vinayasree C.1, Mohan naidu K.2, Muralinath E.2, Amrutham Sandeep<sup>3</sup>, Venkat Naveen A.2 Guruprasad M.4 Sravani pragna K.2

<sup>1</sup>College of Veterinary Science, Korutla, PVNRTVU, Telengana, India 
<sup>2</sup>College of veterinary science, Proddatur, Andhra Pradesh, India 
<sup>3</sup>Indian Veterinary Research Institute (IVRI), Izathnagar 243122 Barielly district, Utter 
Pradesh, India

4Vaishnavi microbial Pvt. Ltd. Hyderabad. India. Corresponding author muralinathennamuri@gmail.com

# **ABSTRACT**

A hiatal hernia is a medical condition manifested by the displacement of a portion of the stomach through the diaphragm into the chest cavity. This condition arises the upper part of the stomach penetrates into the hiatus, a small opening in the diaphragm that permits the esophagus to pass through and connect to the stomach. Hiatal hernias are common among individuals of all ages and can vary in severity from asymptomatic to causing significant discomfort as well as complications.



This article aims to provide maximum information regarding understanding of hiatal hernias, along with their types, causes, symptoms, diagnosis, and treatment options. Additionally, it will elicit the potential risk factors linked to the condition and discuss how lifestyle changes can play a crucial role in managing and preventing hiatal hernias.

**KEY WORDS:** Sliding hiatal hernia, para esophageal hiatic hernia, gastro esophageal reflex (GERD), peptic ulcer disease, esophagitis, gall bladder disease, angina or heart attack, pancreatitis, esophageal cancer, achalasia, gastro paresis, weight management, dietary modifications, elevating the head of the bed, quitting smoking, antacids, H2 receptor blockers, proton pump inhibitors (PPI), laparoscopic surgery and lower esophageal sphincter (LES).

## 1.INTRODUCTION:

A brief overview of hiatal hernia, its definition, and its prevalence among the population.

### 2.TYPES OF HIATAL HERNIA:-

Exploration of the two main types of hiatal hernias: *Sliding hiatal hernia* 

Para esophageal hiatal hernia

## **Sliding Hiatal Hernia:**

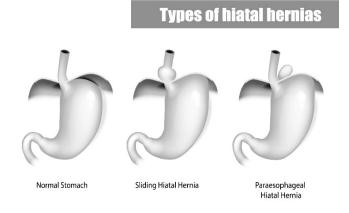
This is the most common type of hiatal hernia. In a sliding hernia, the junction where the esophagus meets the stomach and the upper part of the stomach itself slide up and down via the hiatus, which is the opening in the diaphragm. These movements can vary with changes particularly in body position and breathing. Sliding hiatal hernias are typically small and may not create noticeable symptoms. Whatever it may be, they can lead to acid reflex or gastro esophageal reflex disease (GERD), if stomach acid flows back into the esophagus.

## Paraesophageal Hiatal Hernia:

In this less common type of hiatal hernia, a portion of the stomach protrudes through the diaphragm and lies beside the esophagus. Unlike a sliding hernia, the gastro esophageal junction remains in its normal location. Paraesophageal hernias are more likely to create complications because the stomach can become "trapped" in the chest, leading to strangulation or obstruction. This condition may need an immediate medical attention.

# 3.CAUSES AND RISK FACTORS:-

While the exact causes of hiatal hernias are not always clear, there are several risk factors that may contribute to their development. These risk factors include:



## Age:

Hiatal hernias are more common especially in older individuals, as the muscles that support the diaphragm may weaken with age.

### Obesity:

Excess weight and abdominal fat can put enhanced pressure on the abdomen, leading to a higher risk of developing a hiatal hernia.

# Pregnancy:

During pregnancy, the growing uterus can displace the organs, including the stomach, and enhance the likelihood of a hiatal hernia.

### **Genetics:**

There may be a genetic predisposition for some individuals to develop hiatal hernias, meaning that the condition can run in families.

### Chronic coughing:

Conditions namely chronic cough due to smoking, asthma, or persistent respiratory issues can put strain on the abdominal muscles and enhance the risk of hiatal hernias.

### Straining during bowel movements:

Frequent straining during bowel movements, often happened by chronic constipation, can result in enhanced pressure in the abdominal area and contribute to hiatal hernia formation.

## Heavy lifting:

Regularly lifting heavy objects without using proper lifting techniques can put a strain on the abdominal muscles and enhance the risk of developing a hiatal hernia.

# Injury to the area:

Trauma or injury to the chest or abdominal area may weaken the diaphragm, making it particularly more susceptible to herniation.

### Smoking:

Smoking can weaken the lower esophageal sphincter, the muscle that separates the esophagus from the stomach, potentially leading to a hiatal hernia.

# Acid reflex (GERD):

Chronic gastro esophageal reflex disease (GERD), where stomach acid frequently flows back into the esophagus, can apply strain on the diaphragm and contribute to hiatal hernia development.

### 4.SYMPTOMS:-

The symptoms of hiatal hernia can vary in severity and may include:

### Heartburn:

This is the most common symptom. It is a burning sensation particularly in the chest that may worsen after eating or lying down.

### Regurgitation:

A feeling of stomach contents or acid flowing back into the throat or mouth, sometimes accomplished by a sour taste.

### **Chest Pain:**

Some people may feel chest pain that can be mistaken for heart-related issues, but it's often a result of the stomach acid irritating the esophagus.

# **Difficulty Swallowing:**

Known as dysphagia, this can happen when the hernia applies pressure on the esophagus.

# Feeling of Fullness:

After eating a meal, you may feel uncomfortably full.

### **Burping or Hiccups:**

Frequent burping or hiccups may occur, often due to the stomach pushing up into the chest and causing irritation.

## Nausea:

Some individuals with hiatal hernias may experience nausea or an upset stomach.

### **Chest Pressure or Discomfort:**

This can occur due to the hernia's effect on the diaphragm and nearby structures.

### 5.DIAGNOSIS:-

To diagnose a hiatal hernia, a doctor may use several methods, including:

## **Physical Examination:**

The doctor may perform a physical examination and ask about your symptoms and medical history.

# **Imaging Tests:**

Common imaging tests utilized to diagnose hiatal hernias include X-rays, barium swallow, and upper gastrointestinal (GI) endoscopy.

# Esophageal pH monitoring:

This test measures the acidity levels in the esophagus to determine if acid reflex is happening.

# Manometry:

This test measures the pressure and muscle contractions in the esophagus to estimate its function.

# **Upper Endoscopy:**

A thin, flexible tube with a camera is inserted through the mouth to visualize the esophagus and stomach.

### 6.DIFFEREBTIAL DIAGNOSIS:-

It can sometimes cause symptoms namely heartburn, chest pain, difficulty swallowing, and regurgitation. Whatever it may be, these symptoms are not specific to hiatal hernia, and other conditions may occur with similar symptoms. That is why, a proper differential diagnosis is essential to differentiate hiatal hernia from other potential medical issues. Some of the conditions that should be considered in the differential diagnosis of hiatal hernia include:

# Gastro esophageal Re flux Disease (GERD):

GERD is a chronic condition where stomach acid flows back into the esophagus, causing symptoms namely heartburn and regurgitation. Hiatal hernia can contribute to GERD, but GERD can also happen independently.

# Peptic Ulcer Disease:

Peptic ulcers are open sores that form on the lining of the stomach or the first part of the small intestine. Symptoms are burning stomach pain, bloating, and nausea.

# **Esophagitis:**

This is an inflammation of the esophagus, often happened by irritation from stomach acid. It can lead to symptoms similar to GERD, such as heartburn and difficulty swallowing.

### Gallbladder Disease:

Gallstones or inflammation of the gallbladder (cholecystitis) can result in pain in the upper abdomen, which can be mistaken for hiatal hernia symptoms.

### **Angina or Heart Attack:**

Chest pain occurred by reduced blood flow to the heart can mimic symptoms of hiatal hernia. It is critical to rule out cardiac causes, particularly in older adults and those with risk factors for heart disease.

### Pancreatitis:

Inflammation of the pancreas can result in upper abdominal pain, which might be mistaken for symptoms of hiatal hernia.

### **Esophageal Cancer:**

Although rare, esophageal cancer can present with symptoms similar to those of hiatal hernia, along with difficulty swallowing as well as chest pain.

### Achalasia:

This is a disorder of the esophagus where the lower esophageal sphincter doesn't relax properly, creating difficulty swallowing as well as regurgitation.

# **Gastroparesis:**

This condition happens if the stomach muscles don't work properly, leading to delayed emptying of the stomach, resulting in symptoms such as bloating, nausea, and heartburn.

# **Functional Dyspepsia:**

This is a term used to describe chronic or recurrent pain or discomfort centered in the upper abdomen. It may be due to altered stomach sensitivity or motility.

### 7. TREATMENT OPTIONS:

The treatment options for a hiatal hernia can vary depending on the severity of the condition and the presence of symptoms. Normally, treatment for hiatal hernias falls into two categories: lifestyle changes and medical interventions. It's important to note that only a doctor can provide personalized advice, so if you suspect you have a hiatal hernia or are experiencing symptoms, please consult a doctor for proper evaluation and treatment recommendations.

### LIFE STYLE CHANGES:-

#### Weight management:

If you are overweight or obese, losing weight may help reduce pressure on the stomach and lessen symptoms.

### **Dietary modifications:**

Avoiding large meals, acidic or spicy foods, caffeine, and carbonated beverages can help reduce reflex and heartburn symptoms associated with hiatal hernia.

# Elevating the head of the bed:

Raising the head of the bed by around 6 to 8 inches can help prevent stomach acid from flowing back into the esophagus while sleeping.

### Not lying down after meals:

Remaining upright for at least two to three hours after eating can reduce the risk of reflex symptoms.

### Quitting smoking:

Smoking can weaken the lower esophageal sphincter, making symptoms worse.

#### **MEDICATIONS:-**

### **Antacids:**

Over-the-counter antacids can provide temporary relief from heartburn and acid reflex symptoms.

# **H2** receptor blockers:

These medications reduce the production of stomach acid and can help alleviate symptoms.

## **Proton pump inhibitors (PPIs):**

Stronger acid-reducing medications that can be prescribed by a doctor to manage more severe symptoms.

# **Surgical Intervention:**

When lifestyle changes and medications fail to provide relief, or if complications arise, surgery may be preferred. The most common surgical procedure for hiatal hernias is Nissen fundoplication. In this procedure, the surgeon wraps the upper part of the stomach around the lower part of the esophagus to strengthen the lower esophageal sphincter, obstructing reflex.

Laparoscopic surgery is often used for hiatal hernia repair, which involves smaller incisions and generally results in quicker recovery times.

It's essential to work closely with a doctor to determine the best treatment approach for your specific situation. They will take into account factors namely the size of the hernia, the severity of symptoms, your overall health, and your preferences before recommending a treatment plan.

### 8.PREVENTION:-

Advice on how individuals can reduce their risk of developing hiatal hernias through preventive measures, namely maintaining a healthy weight and adopting a balanced diet.

# 9. CONCLUSION:-

A summary of key takeaways on hiatal hernia, emphasizing the importance of early detection, lifestyle modifications, and appropriate medical management for improving the quality of life of affected individuals.

In conclusion, hiatal hernias are a common medical condition that can create discomfort and complications if left untreated. Understanding the different types, causes, symptoms, and treatment options is essential for timely diagnosis as well as effective management. Through a combination of lifestyle modifications, medications, and, in some cases, surgical intervention, individuals can better manage hiatal hernias and stop potential complications, leading to an improved overall prognosis and quality of life.

## REFERENCES OR FURTHER READING:-

- 1. Kahrilas PJ, Kim HC, Pandolfino JE. Approaches to the diagnosis and grading of hiatal hernia. Best Pract Res Clin Gastroenterol. 2008;22(4):601-16. [PMC free article] [PubMed]
- 2. Hyun JJ, Bak YT. Clinical significance of hiatal hernia. Gut Liver. 2011 Sep;5(3):267-77. [PMC free article] [PubMed]
- 3. Richter JE, Rubenstein JH. Presentation and Epidemiology of Gastroesophageal Reflux Disease. Gastroenterology. 2018 Jan;154(2):267-276. [PMC free article] [PubMed]
- Gadenstätter M, Wykypiel H, Schwab GP, Profanter C, Wetscher GJ. Respiratory symptoms and dysphagia in patients with gastroesophageal reflux disease: a comparison of medical and surgical therapy. Langenbecks Arch Surg. 1999 Dec;384(6):563-7. [PubMed]
- 5. Sfara A, Dumitrascu DL. The management of hiatal hernia: an update on diagnosis and treatment. Med Pharm Rep. 2019 Oct;92(4):321-325. [PMC free article] [PubMed]

- 6. Mainie I, Tutuian R, Shay S, Vela M, Zhang X, Sifrim D, Castell DO. Acid and non-acid reflux in patients with persistent symptoms despite acid suppressive therapy: a multicentre study using combined ambulatory impedance-pH monitoring. Gut. 2006 Oct;55(10):1398-402. [PMC free article] [PubMed]
- 7. Hart AM. Evidence-based recommendations for GERD treatment. Nurse Pract. 2013 Aug 10;38(8):26-34; quiz 34-5. [PubMed]
- 8. Abbas AE, Deschamps C, Cassivi SD, Allen MS, Nichols FC, Miller DL, Pairolero PC. Barrett's esophagus: the role of laparoscopic fundoplication. Ann Thorac Surg. 2004 Feb;77(2):393-6. [PubMed]
- 9. Epstein D, Bojke L, Sculpher MJ., REFLUX trial group. Laparoscopic fundoplication compared with medical management for gastro-oesophageal reflux disease: cost effectiveness study. BMJ. 2009 Jul 14;339:b2576. [PMC free article] [PubMed]
- 10. Baiu I, Lau J. Paraesophageal Hernia Repair and Fundoplication. JAMA. 2019 Dec 24;322(24):2450. [PubMed]
- 11. DeMeester SR. Laparoscopic Hernia Repair and Fundoplication for Gastroesophageal Reflux Disease. Gastrointest Endosc Clin N Am. 2020 Apr;30(2):309-324. [PubMed]
- 12. Danilova DA, Bazaev AV, Gorbunova LI. [Current aspects of surgical treatment of gastro-esophageal reflux disease]. Khirurgiia (Mosk). 2020;(2):89-94. [PubMed]
- 13. Yadlapati R, Pandolfino JE. Personalized Approach in the Work-up and Management of Gastroesophageal Reflux Disease. Gastrointest Endosc Clin N Am. 2020 Apr;30(2):227-238. [PMC free article] [PubMed]
- 14. Vaezi MF, Katzka D, Zerbib F. Extraesophageal Symptoms and Diseases Attributed to GERD: Where is the Pendulum Swinging Now? Clin Gastroenterol Hepatol. 2018 Jul;16(7):1018-1029. [PubMed]
- 15. Dallemagne B, Weerts J, Markiewicz S, Dewandre JM, Wahlen C, Monami B, Jehaes C. Clinical results of laparoscopic fundoplication at ten years after surgery. Surg Endosc. 2006 Jan;20(1):159-65. [PubMed]
- 16. Niebisch S, Fleming FJ, Galey KM, Wilshire CL, Jones CE, Litle VR, Watson TJ, Peters JH. Perioperative risk of laparoscopic fundoplication: safer than previously reported-analysis of the American College of Surgeons National Surgical Quality Improvement Program 2005 to 2009. J Am Coll Surg. 2012 Jul;215(1):61-8; discussion 68-9. [PubMed]