

Chronicles of Biomedical Sciences



journal homepage: https://cbsciences.us/index.php/cbs

Understanding GERD: A Growing Health Concern

Sami Ullah Mumtaz

King Edward Medical University/Mayo Hospital Lahore Pakistan

ARTICLE INFO

EDITORIAL

Article Type: Editorial

Keywords: Gastroesophageal Reflux Sphincter Obesity

*Corresponding author: Dr. Sami Ullah Mumtaz drsumumtaz@gmail.com

Received on: July 28, 2024.

Revised on: August 01, 2024

Accepted on: August 18, 2024

Gastroesophageal reflux disease (GERD) has emerged as a significant health concern in modern society. Characterized by the chronic backflow of stomach acid into the esophagus, GERD affects millions worldwide, causing chest discomfort and potentially leading to more severe health issues if left untreated. The rising prevalence of this condition necessitates a closer examination of its causes, symptoms, and treatment options.¹

GERD occurs when the lower esophageal sphincter (LES), a muscle at the junction between the esophagus and stomach, fails to function properly. This malfunction allows stomach acid to escape into the esophagus, leading to symptoms such as heartburn, regurgitation, chest pain, and difficulty swallowing.² While occasional reflux is common and usually harmless, persistent symptoms can indicate GERD, which requires medical attention. Several factors contribute to the development of GERD. Obesity is a major risk factor, as increase in weight increases abdominal pressure, exacerbating acid reflux. Dietary habits also play a significant role; consuming large meals, fatty or fried foods, coffee, alcohol, and carbonated beverages can trigger symptoms. Additionally, sedentary lifestyle, smoking, pregnancy, and certain medications can weaken the LES, making it more likely for acid to escape into the esophagus.³

The impact of GERD extends beyond physical discomfort. Chronic acid reflux can lead to complications such as esophagitis (inflammation of the esophagus), esophageal strictures (narrowing of the esophagus due to scar tissue), and Barrett's esophagus, a condition where the esophageal lining changes and increases the risk of developing esophageal cancer. These potential outcomes underscore the importance of early diagnosis and effective management of GERD.4 Treatment for GERD typically involves a combination of lifestyle modifications, medications, and, in severe cases, surgery. Lifestyle changes are often the first line of defense. Patients are advised to lose weight, avoid trigger foods, eat smaller meals, and refrain from lying down immediately after eating. Elevating the head of the bed and quitting smoking can also help reduce symptoms.⁵

Apart from precautions, medications are commonly used to manage GERD. Antacids, which neutralize stomach acid, provide quick relief for mild symptoms. H2 receptor blockers and proton pump inhibitors (PPIs) are more potent options that reduce acid production, offering longer-lasting relief. While these medications can be effective, long-term use, especially of PPIs, has been associated with potential side effects such as nutrient deficiencies and an increased risk of certain infections. Therefore, they should be used under medical supervision.⁶

In cases where lifestyle changes and medications do not provide sufficient relief, surgical options may be considered. The most common procedure, fundoplication, involves wrapping the upper part of the stomach around the LES to strengthen it and prevent acid reflux. Newer, less invasive techniques, such as the LINX device, which uses a ring of magnetic beads to reinforce the LES, are also gaining popularity.⁷ Preventing GERD requires a proactive approach. Maintaining a healthy weight, adopting a balanced diet, and avoiding known triggers can significantly reduce the risk of developing the condition. Public awareness campaigns and educational initiatives can also play a crucial role in helping individuals recognize symptoms early and seek appropriate medical care.8

In conclusion, GERD is a pervasive condition that warrants attention due to its potential to cause significant discomfort and serious complications. By understanding the risk factors, symptoms, and available treatments, individuals can take proactive steps to manage GERD effectively. Healthcare providers, too, must remain vigilant in diagnosing and treating this condition to improve the quality of life for those affected. As we continue to research and understand GERD better, the hope is to develop more effective prevention and treatment strategies, ultimately reducing the burden of this common yet often underestimated disease.

References

1. Mahajan R, Kulkarni R, Stoopler ET. Gastroesophageal reflux disease and oral

- health: A narrative review. Special Care Dentist. 2022;42(6):555-64.
- Taraszewska A. Risk factors for gastroesophageal reflux disease symptoms related to lifestyle and diet. Roczniki Państwowego Zakładu Higieny. 2021;72(1):21-8.
- Argyrou A, Legaki E, Koutserimpas C, Gazouli M, Papaconstantinou I, Gkiokas G, Karamanolis G. Risk factors for gastroesophageal reflux disease and analysis of genetic contributors. World J Clin Cases. 2018;6(8):176.
- Eslick GD, Talley NJ. Gastroesophageal reflux disease (GERD): risk factors, and impact on quality of life—a populationbased study. J Clin Gastroenterol. 2009;43(2):111-7.
- 5. Scarpignato C, Hongo M, Wu JC, Lottrup C, Lazarescu A, Stein E, Hunt RH. Pharmacologic treatment of GERD: Where we are now, and where are we going? Annals of the New York Academy of Sciences. 2020;1482(1):193-212.
- 6. Naik RD, Evers L, Vaezi MF. Advances in the diagnosis and treatment of GERD: new tricks for an old disease. Curr Treat Options in Gastro. 2019;17(3):1-7.
- 7. Commisso A, Lim F. Lifestyle modifications in adults and older adults with chronic gastroesophageal reflux disease (GERD). Crit Care Nursing Quarterly. 2019;42(1):64-74.
- 8. Klenzak S, Danelisen I, Brannan GD, Holland MA, van Tilburg MA. Management of gastroesophageal reflux disease: patient and physician communication challenges and shared decision making. World J Clin Cases. 2018;6(15):892.