

Original Research Article

To assess the occurrence of GERD and its association with some lifestyle parameters

Dr. Amit Agrawal¹ (Associate Professor), Dr. Shubham Agrawal² (Professor Orthodontics), Dr. Anuradha Agrawal³ (Associate Professor) & Dr. Sumit Shukla⁴

MD Medicine, DM Gastroenterology, Department of Medical Gastroenterology, Mahatma Gandhi Memorial Medical College & Super Speciality Hospital Indore¹

BDS, MDS, Professor Orthodontics. Modern Dental College Indore²

BDS, MDS, Associate Professor Government Dental College Indore³

Professor Department of Surgery, Mahatma Gandhi Memorial Medical College & Super Speciality Hospital, Indore⁴

Corresponding Author: Dr. Shubham Agrawal

Abstract

Background & Methods: The aim of the study is to assess the occurrence of GERD & its association with some lifestyle parameters. The questionnaire was verified by both supervisors & was pre tested on 10% of the sample size. It consisted of open-ended questions related to the aim of the research study. The respondents were explained the questions in their native language that they were aware about the purpose of the study & on obtaining their consent, data was collected from the respondents.

Results: In our study we found maximum cases in moderate i.e. 311 with p value of 0.038. In our study found maximum cases everyday i.e. 41.6%. In our study we found maximum cases in moderate i.e. 311 with p value of 0.038.

Conclusion: The occurrence of GERD inclines gradually with the growing age from childhood & reported frequently in adults. In India, acidity & irritating bowel is very common & long-term acid reflux is called Gastro-esophageal Reflux Disorder or Disease. Individuals want to eat rice twice a day, creating cholesterol levels & body weight that wind up leading to a disturbing bowel as gastric difficulties. The process actually takes place when the eaten substances come back to esophagus from stomach with acid, heart burn, bad breath, chest pain, & vomiting, breathing problems. Because of less exercise & an unexpected dietary example compared to the rest of the world, the majority of the general population faces weight or overweight problems.

Keywords: occurrence, GERD & lifestyle.

Study Design: Observational Study.

1. Introduction

Although intermittent movement of gastric contents into the esophagus is a normal physiologic occurrence, prolonged exposure or increased sensitivity to this exposure leads to GERD. The barrier between esophagus & stomach is made up of the lower esophageal sphincter (LES; specialized esophageal muscle fibers) & the crural diaphragm through which the esophagus passes from the chest into the abdomen. Transient relaxations of the LES (tLESRs) occur with equal frequency in GERD patients & healthy controls, probably as a

venting reflex due to meal-related gastric distention [1]. However, acid exposure in the esophagus may be increased in GERD patients due to a variety of factors including increased intraabdominal pressure such as from obesity or pregnancy, decreased esophageal or gastric motility, xerostomia, or presence of a hiatal hernia (with loss of the normal anatomic barrier mentioned above). In addition, there is variation in esophageal visceral sensitivity & mucosal integrity which may predispose to more severe symptoms or tissue damage[2]. Increased acid production is not an important cause of GERD. In terms of extraesophageal manifestations, the reflux theory holds that gastric contents are aspirated & directly damage bronchial or laryngeal areas, whereas the reflex theory proposes bronchoconstriction due to a vagally-mediated reflex.

Gastroesophageal reflux illness (GERD), with symptoms of acid reflux & destructive spewing, is experienced by 10 to 30% of the masses at any rate without fail [3]. Huge comprehensive network-based examinations have seemed overweight & strength are chance factors for symptomatic GERD [5]. A part subordinate alliance was found among BMI & reality & reaction repeat of GERD untreated. Smoking & persistent usage of alcohol were moreover associated with a development in symptoms [6]. The symptoms of GERD are effectively treated by Acidic Suppressive Medication (ASM) is most commonly used [7]. Regardless, the inefficacy of Pharmacotherapy PPI has transformed into a run of the mill clinical issue; Up to 30% of patients with GERD remain symptomatic in standard treatment [8]. The conspicuous confirmation of lifestyle characteristics influencing the adequacy of indication control under ASM treatment is of high congruity in the treatment with GERD. A cross-sectional examination in fundamental thought researched whether overweight, smoking & alcohol use away the power & reality of remaining reflux indications in patients with endless ASM. In consistency with the diseases referenced more than 33 percent of India's masses have made mental ailment. It is an essential factor in the investigation of GERD as patients who feel heartburn or cerebral torment go for stomach treatment that may have been possibly a psychological ailment or migraine in numerous patients in India[9]. Anyway, deplorably it requires enough speculation to recognize the psychological sickness. As demonstrated by the report of the World Health Organization 1/3 of the quantity of occupants in India are the losses of smooth to coordinate distress.

2. Material & Methods

Present Study was conducted at Mahatma Gandhi Memorial Medical College & Super Speciality Hospital Indore for 06 Months. A series of consecutively 384 GERD respondents with different etiologies were included in the study. The respondents were interviewed by an interviewer as per questions in the questionnaire. Questions in the questionnaire were asked by the invigilator in English. The questionnaire was verified by both supervisors & was pre tested on 10% of the sample size. It consisted of open-ended questions related to the aim of the research study. The respondents were explained the questions in their native language that they were aware about the purpose of the study & on obtaining their consent, data was collected from the respondents.

The research instruments used for conducting the study were anthropometric measurements, clinical examination, diet history & medical information. Respondents particulars & demographic data was recorded. Relevant information like Name, Gender, Marital Status, Occupation, dietary habits & past history of disease were also taken from the respondents.

3. Result

Table No 1: Gender Distribution

Gender	No.	%	No.	%	No.	%
Male	228	59.3	97	25.2	325	85
Female	43	11.2	16	4.2	59	15
Total	271	70.5	113	29.5	384	100

The total respondents were 384 out of which 271 were from rural area & 113 from urban area. It was observed that out of 271 rural respondents 228 (59.3%) were males & 43 (11.2%) were females. Further, it was observed that out of 113 urban respondents 97 (25.2%) were males & 16 (4.2%) were females.

Table No 2: Occurrence of GERD

Response	Male	Female	Total	%
Everyday	133	27	160	41.6
Twice a week	115	10	125	32.5
Weekly	59	11	70	18.2
Fort-nightly	12	03	15	3.9
Once a month	06	08	14	3.6
	325	59	384	100

In our study we found maximum cases everyday i.e. 41.6%.

Table No 3: Socio-Demographic Profile of Respondents

Characteristics	Male %	Female %	P Value
MARTIAL STATUS			
Married	94	85	>0.05
Unmarried	06	15	
OCCUPATION			
Govt. Employee	09	05	0.081
Private Employee	14	03	
Own Business Enterprise	11	10	
Agriculturist	26	05	
Labourers	30	00	
Professional	08	11	
Unemployed	03	10	
Housewives	00	15	

In our study we found maximum cases

Table 4: Lifestyle among the respondents

Response	Male	Female	Total	P Value
Sedentary	26	09	35	0.038
Moderate	271	40	311	
Heavy	28	10	38	
	325	59	384	

In our study we found maximum cases in moderate i.e. 311 with p value of 0.038.

4. Discussion

Gastro oesophageal reflux or GER means involuntary passage of gastric contents into the esophagus & is often physiological but gastroesophageal reflux disease or GERD means symptoms or complications associated with pathological GER. GER or regurgitation is very common in infancy, both in the west as well as in India. Pyrosis or heartburn is common in most of the patients who are diagnosed with GERD[10]. Hence, the prevalence of GERD inclines gradually with the growing age from childhood & reported frequently in adults. In India, acidity & irritating bowel are very common & long-term acid reflux is called Gastro-esophageal Reflux Disorder or Disease. The process actually takes place when the eaten substances come back to esophagus from stomach along with acid & is associated with heart burn, bad breath, chest pain, & vomiting, breathing problems & wearing a way of teeth. Wikipedia mentions risk factor as, obesity, pregnancy, smoking, hiatus hernia & taking certain medicines. More than 10 to 20 percent population of the western world is believed to be the victims of GERD[11].

GERD is created when reflux of stomach substance through the lower oesophageal sphincter causes troublesome side effects or inconveniences. In spite of the fact that the fundamental reason stays questionable, the key pathophysiological system of GERD has all the earmarks of being transient unwinding of the lower oesophageal sphincter. Besides, sliding break hernia, over the top reflux incited by weakened oesophageal or gastric freedom, & oesophageal excessive touchiness have been embroiled[12]. There is proof that corpulence, smoking, visit utilization of liquor & mental pain are hazard factors for creating GERD. Indications & confusions of GERD can be viably treated with Acid Suppressive Medicine (ASM), of which Proton Pump Inhibitors (PPI) are more viable than Histamine-2-Receptor Antagonist (H2RA) in controlling manifestations & mending oesophageal sores in short & in long haul treatment. In many patients, the occurrence of reflux is indicated by the typical symptoms of heartburn, regurgitation, dysphagia but various studies done so far reveal no correlation between symptomatology & occurrence of reflux[13]. Similarly, symptoms of GERD can be typical in the form of non-cardiac chest pain, wheezing, hoarseness, apneic spells in children etc [14]. GERD is precipitated by various factors like gross obesity, excessive fat ingestions, coffee, chocolates, alcohol, smoking, various drugs, various meals & physical maneuvers which increase intra-abdominal pressure.

5. Conclusion

The occurrence of GERD inclines gradually with the growing age from childhood & reported frequently in adults. In India, acidity & irritating bowel is very common & long-term acid reflux is called Gastro-esophageal Reflux Disorder or Disease. Individuals want to eat rice twice a day, creating cholesterol levels & body weight that wind up leading to a disturbing bowel as gastric difficulties. The process actually takes place when the eaten substances come back to esophagus from stomach with acid, heart burn, bad breath, chest pain, & vomiting, breathing problems. Because of less exercise & an unexpected dietary example compared to the rest of the world, the majority of the general population faces weight or overweight problems.

6. References

1. Jones MP, Sloan SS, Rabine JC, et al. Hiatal hernia size is the dominant determinant of esophagitis presence & severity in gastroesophageal reflux disease. *Am J Gastroenterol.* 2001; 96: 1711 – 7.
2. Kahrilas PJ, Shi G, Manka M, et al. Increased frequency of transient lower esophageal sphincter relaxation induced by gastric distension in reflux patients with hiatal hernia. *Gastroenterology.* 2000; 118: 688 – 95.
3. Ho SC, Chang CS, Wu CY, et al. Ineffective esophageal motility is a primary motility disorder in gastroesophageal reflux disease. *Dig Dis Sci.* 2002; 47: 652 – 6.
4. Dent J. Recent views on the pathogenesis of gastroesophageal reflux disease. *Baillieres Clin Gastroenterol.* 1987; 1: 727 – 45.
5. Lehman GA, Dunne DP, Hieston K, et al. Suturing plication of cardia with endocinch device: effect of supplemental cautery. A human prospective randomized trial. *Gastrointest Endosc.* 2002; 55: AB260.
6. Filipi C, Lehman G, Rothstein RI, et al. Transoral endoscopic suturing for gastroesophageal reflux disease: a multicenter trial. *Gastrointest Endosc.* 2001; 53: 416.
7. Chuttani R, Kozarek R, Sachdev R, et al. A novel endoscopic full-thickness plicator for the treatment of GERD: early clinical results (abstract). *Endoscopy.* 2001; 33S: 2200.
8. Chuttani R, Sud R, Sachdev G, et al. Endoscopic fullthickness plicator for GERD: final results of human pilot study (abstract). *Gastrointest Endosc.* 2002; 55: AB258.
9. Triadafilopoulos G, Dibaise JK, Nostrant TT, et al. Radiofrequency energy delivery to the gastroesophageal junction for the treatment of GERD. *Gastrointest Endosc.* 2001; 53: 407.
10. Triadafilopoulos G, Dibaise JK, Nostrant TT, et al. The Stretta procedure for the treatment of GERD: 6- and 12-month follow-up of the US open label trial. *Gastrointest Endosc.* 2002; 55: 149.
11. Locke 3rd GR, Talley NJ, Fett SL, Zinsmeister AR, Melton LJ 3rd. Prevalence and clinical spectrum of gastroesophageal reflux: a population based study in Olmstead County, Minnesota. *Gastro-enterology.* 1997; 112:1448-56.
12. Lundell L, Miettinen P, Myrvold HE, et al. Long-term management of gastroesophageal reflux disease with omeprazole or open antireflux surgery: results of a prospective, randomized clinical trial. The Nordic GORD Study Group. *Eur J Gastroenterol Hepatol.* 2000; 12: 879 – 87.
13. Allgood PC, Bachmann M. Medical or surgical treatment for chronic gastroesophageal reflux? A systematic review of published evidence of effectiveness. *Eur J Surg.* 2000; 166: 713 – 21.
13. Spechler SJ, Lee E, Ahnen D, et al. Long-term outcome of medical and surgical therapies for gastroesophageal reflux disease: follow-up of a randomized controlled trial. *JAMA.* 2001; 285: 2331 – 8.