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A RETROSPECTIVE STUDY TO ANALYSE THE EFFECT OF HOMOEOPATHIC MEDICINES IN THE TREATMENT OF GASTROESOPHAGEAL REFLUX DISEASE (GERD)

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Abstract:

Background: Gastroesophageal reflux disease (GERD) is a chronic gastrointestinal disorder characterized by regurgitation of gastric contents into the oesophagus. There is a "physiologic" reflux that occurs as heart burn especially after a meal and remains asymptomatic and neutralized by rapid clearance from distal oesophagus. Esophageal peristalsis is an important component of the anti-reflux mechanism. It is one of the common gastric disorders prevalent worldwide.

Aim and Objective: To analyse the effect of homoeopathic medicines in the treatment of GERD, also to assess the role of dietary habits, occupation, age, gender, past history of patients with GERD. This retrospective study was conducted at gastroenterology OPD at National Homoeopathy Research Institute in Mental Health (NHRIMH), Kottayam, Kerala, India.

Materials and Methods: A total of 70 case sheets were screened, in patients who had visited between January 2019 and December 2019, among them 28patients those score were more than or equal to 8 by using Gastroesophageal Reflux Disease Questionnaire scale were included in the study. Assessment was done using gastrointestinal symptom rating scale (GSRS) and scores were recorded for every follow up visit (5 visits).

Statistical Analysis: The statistical analysis was done using IBM SPSS Version 20.0 software. The changes in symptom scores and GERD total score were assessed using Friedman test. **Results**: The test showed a statistically significant difference in the total score (χ^2= 100.586, p<0.001). **Conclusion**: There is significant improvement in patients symptom score after homoeopathic medicines indicates there is effectiveness of homoeopathic medicines in the treatment of GERD.

Key words: Homoeopathy, Gastroesophageal Reflux Disease, Gastroesophageal Reflux Disease Questionnaire scale, Gastrointestinal Symptom Rating Scale, Retrospective study.

INTRODUCTION

Gastroesophageal reflux disease (GERD) is defined as "a chronic disorder related to the retrograde flow of gastro-duodenal contents into the esophagus and adjacent organs, producing a group of symptoms, with or without tissue damage".[1],[2]It is characterized by regurgitation of gastric contents into the esophagus.[3]This physiologic reflux occurs as heart burn especially after a meal and remain asymptomatic and neutralized by rapid clearance from distal esophagus. Esophageal peristalsis is an essential phenomenon for the anti-reflux mechanism of GERD.[1],[4],[5]

GERD is highly prevalent in developed countries, ranges from 8 to 33 % world-wide,18–27% in North Americans, 8–25% in Europeans, 23% in South Americans, 11% in Australians and 2–7% in Eastern Asians.[1],[6],[7]Comparing to western world GERD has been affected less common in Asian countries. In recent study report it has been shown that its prevalence in India is between 8-20% which is comparable to that in the west.[8]About 16.2-18% peoples were affected in India according to questionnaire-based cross-sectional multi centre studies by Sharma et al. and Kumar et al. [9]The estimated proportion of phenotypic variance in GERD symptoms is from 0 to 22%.In a twin study, 13% of the variance in GERD symptoms was estimated to be due to genetic effects mediated by anxiety and depression.[6] The pathophysiology of GERD seems to be multifactorial.[1],[7],[13]

GERD is classified according to endoscopic and histopathologic appearance, into three different phenotypes. 1. Non-erosive reflux disease (NERD)- 60-70%, 2.Erosive esophagitis (EE)- 30%, and 3. Barrett's esophagus (BE) -6-12%.[3]It affects both sexes, all age groups and all races.[10]NERD affects more women than men. The prevalence of reflux esophagitis is significantly increased with age in women, especially after 50s. However, men suffer pathologic diseases such as reflux esophagitis, BE, and esophageal adenocarcinoma (EAC) more frequently. The mean age of EAC incidence in

women is higher than in men, suggesting a role of estrogen in delaying the onset of BE and EAC. [11]

Specific foods like raw onions, chocolate, caffeine, peppermint, citrus juices, alcoholic beverages, tomato products, and spicy foods have been identified as potential aggravating factors for GERD.[13] Studies in the Asian region have noted that risk factors for GERD are older age, males, family history, high socioeconomic status, increased body mass index (BMI), alcohol use, smoking, and hiatus hernia. [10]GERD has an impact on the daily lives of affected individuals, interfering with physical activity, disturbing sleep, impairing social functioning, mental well-being, and reducing productivity at work.[12]Morbidly obese, pregnancy, and end-stage lung disease has high prevalence of GERD.[1,7,13]

Patients with GERD had abnormal peristalsis (40%-50%)[3], had frequent and prolonged Transient lower oesophageal sphincter relaxation (TLESR)(40%).[1,4,13]50% of patients with erosive esophagitis are associated with GERD.[1] Hiatal hernia is considered an independent factor for GERD as it disrupts natural antireflux mechanisms and also decreases Trans diaphragmatic pressure (TP).[1],[12] Transdiaphragmatic Pressure Gradient (TPG) seems to play an important role in development of GERD in patients with obesity and other pulmonary diseases even with an intact esophagogastric barrier. Weight loss decreases the intensity of GERD due to reduction in abdominal pressure.[12]

Typical and classical symptoms of GERD are heartburn and regurgitation.[10],[13]The diagnosis of GERD can be made when presented with both the symptoms.[13]Patients with GERD reports usually with upper abdominal symptoms (8–54%), heartburn and/or regurgitation (21–59%).[10]GERD symptoms are more frequent in patients with NERD than in those with reflux esophagitis.[11]Atypical symptoms of GERD includes dysphagia/odynophagia (> 30 %), non-cardiac chest pain, as laryngitis, hoarseness, pharyngitis, chronic sinusitis, dental erosions, and chronic cough are the extra esophageal symptoms. Retrosternal burning sensation that radiates to the pharynx and occurs after meals (typically 30 to 60 minutes after eating) or upon reclining at night, also be aggravated by bending over and relieved by standing or taking antacid .[13]Patients with GERD had abnormal peristalsis (40%-50%)[1],[6], with prolonged TLESR(40%).[1],[4],[13]

The diagnosis of GERD is mainly symptom-based; it often does not require endoscopic confirmation, but for those with red-flag symptoms like dysphagia, anemia, weight loss, bleeding, and recurrent vomiting Endoscopy is required.[13]

Most common complications of GERD are esophagitis, bleeding, esophageal erosions and ulcerations, stricture formation, Barrett's esophagus, and adenocarcinoma of the esophagus.[13]

Lifestyle modifications and avoidance of exacerbating factors can be helpful in treatment of GERD for individual patients.[13]The total direct economic impact of GERD and its complications was estimated to be more expensive. Conventional treatment modalities include Proton Pump Inhibitors as first-line medical therapy and Histamine 2 receptor antagonists to treat breakthrough nocturnal symptoms. Endoscopic and surgical procedures are indicated when medical interventions fails. The most appropriate treatment for GERD is considered to be surgical when associated with esophageal adenocarcinoma.[1],[14]

The study by Renu Mittal, Anil Khurana et al has explored the usefulness of homoeopathic medicines in treatment of NERD and helpful in improving the Quality of life of the patients. [15]

Aim and Objective: To analyse the effect of homoeopathic medicines in the treatment of GERD, also to assess the role of dietary habits, occupation, age, gender, past history of patients with GERD.

Materials and methods

Study design and settings: Retrospective study conducted for the period from January 2019 to December 2019 through the available data of patient's case records of Gastroenterology unit of NHRIMH, Kottayam. 70 case sheets were screened; in those 28 patients who were fitting into the inclusion criteria were enrolled in the study.

Study population: patients visited Gastroenterology unit of NHRIMH, Kottayam from January 2019 to December 2019.

Inclusion criteria: Patients with GERD symptom score ≥ 8,of both genders,age group between 15-70 years, with 5 visit follow up were included in the study.

Exclusion criteria: patients having symptom score less than 8 in diagnostic questionnaire were exclude from the study

Intervention

Study procedure:

Through the available data of patient's case records of Gastroenterology unit of NHRIMH, Kottayam from January 2019 to December2019 study had been conducted. Out of 70 case sheets, 28 patients those who score were more than or equal to 8 with 5 visit follow-up by using the Gastroesophageal Reflux Disease Questionnaire scale were included in study. For each patient Gastrointestinal Symptom Rating Scale(GSRS)was assessed and scores were recorded in every follow-up visit. Scoring was recorded and statistical analysis was done.

Gastrointestinal Symptom Rating Scale was used to access the symptom severity of GERD. This scale had 14 domains with seven grading. The 14 domains are pain or discomfort in your upper abdomen, heartburn, acid reflux, hunger pains, nausea, rumbling, bloated, burping, passing gas or flatus, constipation, loose stools and hard stools, urgent need to have a bowel movement, Sensation of not completely emptying the bowels. 7 grading for intensity of symptoms areno discomfort at all, minor discomfort, mild discomfort, moderate discomfort, moderately severe discomfort, severe discomfort, very severe discomfort.

Outcome measure: Symptoms were graded based on Gastrointestinal Symptom Rating Scale (GSRS) at baseline and every follow up, and the values are taken into consideration for the analysis.

Statistical analysis

The statistical analysis was done using IBM SPSS Version 20.0. The changes in symptom scores and Gastrointestinal Symptom Rating Scale (GSRS) were assessed using Friedman test. $P<0.05$ was considered as statistically significant

Results

A total of 28 patients (M - 60.7%, F-39.3%) with at least 5 visits were analyzed to assess the changes in GERD symptom scores. The mean age was 47.9±12.5. The participants were of different occupations among which 32.1% were housewives. The

socio economic statuses of 75% of the participants were moderate and the remaining was of low socio economic status. All the cases were Non- vegetarians. Two cases were alcoholics with smoking habit and among these two, one case was having the habits of betel nut chewing and using Hans. The family history, past history and associated diseases were also recorded and represented in Table 1.

Table 1. Demographical Data of patients with GERD

Variable	**No. of cases (%) / Mean ±SD**
Age	47.9±12.5
Gender	
Male	17(60.7)
Female	11(39.3)
Occupation	
Accountant	1(3.6)
Business	1(3.6)
Camera repairer	1(3.6)
Daily wages	2(7.1)
Devaswam board	1(3.6)
Farmer	1(3.6)
Fabrication works	1(3.6)
Hostel warden	1(3.6)
House wife	9(32.1)
Lottery distributor	1(3.6)
Mobile technicians	1(3.6)
Policeman	1(3.6)
Private company	1(3.6)
Security	1(3.6)
Student	2(7.1)
Tailor	1(3.6)
Teacher	1(3.6)
Watch mechanic	1(3.6)
Socio Economic Status	
Low	7(25.0)
Moderate	21(75.0)
High	0(0.00)
Personal History	
Non Vegetarian	26(92.8)
Non Vegetarian, Alcoholic, Smoker	1(3.6)
Non Vegetarian, Alcoholic, Smoker, Betel nut chewing, Hans using	1(3.6)
Family History	
EB -Peptic ulcer. S-Asthma	1(3.6)
YB-DM,S-CA Rectum	1(3.6)

F-Asthma,DM,HTN, M-Cerebral atrophy	1(3.6)
F-MI M-DM, B-DM,HTN,DLP	1(3.6)
F-MI, M-CAD,H/o APD in family	1(3.6)
M-APD	1(3.6)
M-APD,S-APD	1(3.6)
M-CA Liver	1(3.6)
M-CA Lung,F-HTN	1(3.6)
M-CVA	1(3.6)
M-DLP,HTN,DM	1(3.6)
M-DM,S-DM	1(3.6)
M-HTN	2(3.6)
M-HTN S-CA Breast	1(3.6)
M-HTN,DLD,CAD F-Renal disease	1(3.6)
M-HTN,DLP, F-DM,HTN	1(3.6)
M-THYROID,VV,DM-F-VV,DM,Pancreatitis	1(3.6)
ES-CAD,	1(3.6)
Nil	9(32.1)
Past History	
Appendicitis	1(3.6)
Asthma	1(3.6)
CVA,Cholelithiasis	1(3.6)
Dyslipidemia	1(3.6)
Gastric Ulcer, Haemorhoids	1(3.6)
Haemorrhoidectomy	1(3.6)
Hepatitis	6(21.4)
Hepatitis,Asthma	1(3.6)
Hepatitis,Inguinal hernia	1(3.6)
Hypothyroidism,DM	1(3.6)
IVDP,chickenpox	1(3.6)
IVDP,tonsillectomy	1(3.6)
Jaundice	1(3.6)
R/A Tonsilitis	1(3.6)
TB,chicken pox	1(3.6)
Nil	8(28.6)
Associated Diseases	
Allergic Rhinitis	1(3.6)
Bleeding haemorrhoids	1(3.6)
Cervical spondylosis	1(3.6)
DLP	1(3.6)
DLP,HTN,CVA	1(3.6)
Fatty liver	2(7.1)
Fatty liver, Uterine Fibroid, DLP	1(3.6)
Haemorrhoids	1(3.6)
Headache	1(3.6)
HTN, Headache	1(3.6)
VV	1(3.6)
Nil	16(57.1)

(Abbreviations : APD-Acid Peptic Disorder, CA-Carcinoma, CAD- Coronary Artery Disease, CVA-Cerebro vascular accident, DLP-Dyslipidemia, DM –Diabetes Mellitus, EB-

Elder Brother, ES- Elder Sister, F – Father, HTN-Hypertension, IVDP-Inter Vertebral Disc Prolapse, M – Mother, VV-Varicose Vein, YB-Younger Brother.)

The GERD symptom scores at 5 visits were compared using Friedman test at 5% level of significance. The test showed a statistically significant difference in the total score over the 5 visits (χ^2= 100.586, p<0.001). The median total score changed from 30 to 1.5. The decline in median total scores at 5 visits is represented in Figure 1.

Individual symptom scores were also compared using Friedman test. There was a statistically significant difference in the epigastric pain (χ^2= 69.260, p<0.001), heart burns (χ^2= 89.563, p<0.001), acid reflux (χ^2= 72.398, p<0.001), nausea(χ^2= 29.160, p<0.001), rumbling(χ^2= 15.068, p=0.005), bloating(χ^2= 74.098, p<0.001), burping(χ^2= 38.681, p<0.001), flatulence(χ^2= 37.805, p<0.001), constipation(χ^2= 24.122, p<0.001), hard stools(χ^2= 28.789, p<0.001), urgency to pass stool (χ^2= 10.261, p=0.036) and ineffectual urge(χ^2= 23.315, p<0.001). The values are explained in Table 2.

The Fried man test failed to show statistically significant difference in the symptoms hunger pain, diarrhoea and loose stools. In the case of hunger pain, 25 out of 28 cases were not having hunger pain at the beginning of the treatment. One case each was having minor discomfort, moderately severe discomfort and very severe discomfort. After 5 visits, 26 cases were not having any discomfort, and one case each was having minor discomfort and mild discomfort. Only one case was having diarrhea at the beginning of the treatment which cured after 2 visits. One case was having moderately severe discomfort of loose stools which was cured by 4 visits.

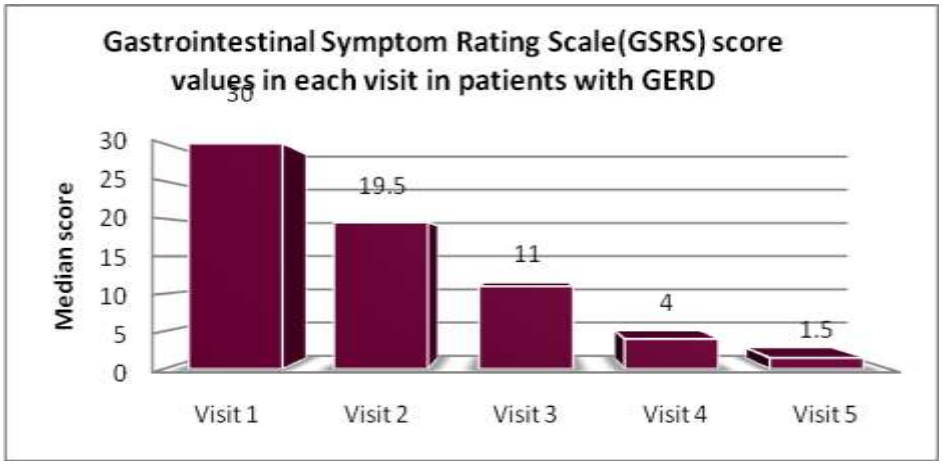

Figure 1: Gastrointestinal Symptom Rating Scale (GSRS) scale score values in each visit in patients with GERD

Table 2: Changes in symptom scores and Total score in patients with GERD

Symptom	Visit 1	Visit 2	Visit 3	Visit 4	Visit 5	Friedmann X^2 statistic	P value
Epigastric pain							
No discomfort at all	8(28.6)	8(28.6)	11(39.3)	13(46.4)	19(67.9)	69.260	<0.001
Minor Discomfort			2(7.1)	5(17.9)	7(25.0)		
Mild discomfort		2(7.1)	4(14.3)	5(17.9)			
Moderate Discomfort	1(3.6)	3(10.7)	7(25.0)	2(7.1)			
Moderately Severe discomfort	1(3.6)	7(25.0)	1(3.6)	1(3.6)			
Severe Discomfort	2(7.1)	7(25.0)	2(7.1)	1(3.6)	1(3.6)		
Very severe discomfort	16(57.1)	1(3.6)	1(3.6)	1(3.6)	1(3.6)		
Heart burns							
No discomfort at all	3(10.7)	3(10.7)	3(10.7)	11(39.3)	21(75.0)	89.563	<0.001
Minor Discomfort			10(35.7)	9(32.1)	5(17.9)		
Mild discomfort(		3(10.7)	5(17.9)	4(14.3)			
		6(21.4)	6(21.4)	2(7.1)			
Moderately Severe discomfort	2(7.1)	8(28.6)	2(7.1)	1(3.6)	1(3.6)		
Severe Discomfort	3(1.7)	6(21.4)	1(3.6)				
Very severe discomfort	20(71.4)	2(7.1)	1(3.6)	1(3.6)	1(3.6)		
Acid Reflux							
No discomfort at all	7(25.0)	7(25.0)	10(35.7)	16(57.1)	23(82.1)	72.398	<0.001
Minor Discomfort			4(14.3)	7(25.0)	3(10.7)		
Mild discomfort		5(17.9)	6(21.4)	3(10.7)			
Moderate	2(7.1)	3(10.7)	5(17.9)				

Discomfort							
Moderately Severe discomfort		7(25.0)	1(3.6)	1(3.6)	1(3.6)		
Severe Discomfort	3(10.7)	5(17.9)					
Very severe discomfort	16(57.1)	1(3.6)	2(7.1)	1(3.6)	1(3.6)		
Hunger pain							
No discomfort at all	25(89.3)	25(89.3)	27(96.4)	26(92.9)	26(92.9)	5.662	0.226
Minor Discomfort	1(3.6)	1(3.6)		1(3.6)	1(3.6)		
Mild discomfort					1(3.6)		
Moderate Discomfort		1(3.6)	1(3.6)	1(3.6)			
Moderately Severe discomfort	1(3.6)						
Severe Discomfort		1(3.6)					
Very severe discomfort	1(3.6)						
Nausea							
No discomfort at all	20(71.4)	21(75.0)	25(89.3)	27(96.4)	28(100.0)	29.160	<0.001
Minor Discomfort		2(7.1)					
Mild discomfort		2(7.1)	3(10.7)	1(3.6)			
Moderate Discomfort	1(3.6)						
Moderately Severe discomfort	2(7.1)	2(7.1)					
Severe Discomfort	1(3.6)	1(3.6)					
Very severe discomfort	1(14.3)						
Rumbling							
No discomfort at all	24(85.7)	24(85.7)	25(89.3)	27(96.4)	28(100.0)	15.068	0.005
Minor Discomfort		2(7.1)	1(3.6)	1(3.6)			

Mild discomfort							
Moderate Discomfort			2(7.1)				
Moderately Severe discomfort	1(3.6)	1(3.6)					
Severe Discomfort		1(3.6)					
Very severe discomfort	3(10.7)						
Bloating							
No discomfort at all	8(28.6)	8(28.6)	11(39.3)	17(60.7)	23(82.1)	74.098	<0.001
Minor Discomfort		1(3.6)	5(17.9)	6(21.4)	3(10.7)		
Mild discomfort		1(3.6)	1(3.6)	2(7.1)	1(3.6)		
Moderate Discomfort		3(10.7)	7(25.0)	2(7.1)			
Moderately Severe discomfort		6(21.4)	4(14.3)	1(3.6)	1(3.6)		
Severe Discomfort	3(10.7)	6(21.4)					
Very severe discomfort	17(60.7)	9(32.1)					
Burping							
No discomfort at all	17(60.7)	18(64.3)	19(67.9)	20(71.4)	26(92.9)	38.681	<0.001
Minor Discomfort			1(3.6)	4(14.3)	1(3.6)		
Mild discomfort			1(3.6)	1(3.6)			
Moderate Discomfort			4(14.3)	2(7.1)			
Moderately Severe discomfort		4(14.3)	1(3.6)	1(3.6)	1(3.6)		
Severe Discomfort	1(3.6)	5(17.9)	2(7.1)				
Very severe discomfort	10(35.7)	1(3.6)					
Flatulence							
No discomfort	15(53.6)	16(57.1)	17(60.7)	20(71.4)	24(85.7)	37.805	<0.001

at all							
Minor Discomfort	1(3.6)	1(3.6)	2(7.1)	5(17.9)	2(7.1)		
Mild discomfort			3(10.7)	1(3.6)	1(3.6)		
Moderate Discomfort		3(10.7)	3(10.7)				
Moderately Severe discomfort	2(7.1)	3(10.7)					
Severe Discomfort	2(7.1)	3(10.7)	2(7.1)	1(3.6)			
Very severe discomfort	8(28.6)	2(7.1)	1(3.6)	1(3.6)	1(3.6)		
Constipation							
No discomfort at all	18(64.3)	18(64.3)	20(71.4)	19(67.9)	22(78.6)	24.122	<0.001
Minor Discomfort	1(3.6)	2(7.1)		3(10.7)	4(14.3)		
Mild discomfort		1(3.6)	2(7.1)	2(7.1)			
Moderate Discomfort	1(3.6)	1(3.6)	3(10.7)	3(10.7)	1(3.6)		
Moderately Severe discomfort	2(7.1)	1(3.6)	1(3.6)				
Severe Discomfort	1(3.6)	4(14.3)	1(3.6)				
Very severe discomfort	5(17.9)	1(3.6)	1(3.6)	1(3.6)	1(3.6)		
Diarrhoea							
No discomfort at all	27(96.4)	27(96.4)	28(100.0)	28(100.0)	28(100.0)	4.000	0.406
Minor Discomfort							
Mild discomfort							
Moderate Discomfort	1(3.6)	1(3.6)					
Moderately Severe discomfort							
Severe Discomfort							
Very severe discomfort							

Loose stools							
No discomfort at all	27(96.4)	26(92.9)	26(92.9)	26(92.9)	28(100.0)	4.000	0.406
Minor Discomfort		1(3.6)	1(3.6)	1(3.6)			
Mild discomfort				1(3.6)			
Moderate Discomfort		1(3.6)	1(3.6)				
Moderately Severe discomfort	1(3.6)						
Severe Discomfort							
Very severe discomfort							
Hard stools							
No discomfort at all	18(64.3)	19(67.9)	20(71.4)	24(85.7)	25(89.3)	28.789	<0.001
Minor Discomfort	1(3.6)	2(7.1)	4(14.3)	2(7.1)	1(3.6)		
Mild discomfort		1(3.6)	1(3.6)				
Moderate Discomfort		2(7.1)					
Moderately Severe discomfort	3(10.7)	2(7.1)	2(7.1)	1(3.6)	1(3.6)		
Severe Discomfort	1(3.6)	1(3.6)					
Very severe discomfort	5(17.9)	1(3.6)	1(3.6)	1(3.6)	1(3.6)		
Urgency to pass stool							
No discomfort at all	25(89.3)	25(89.3)	26(92.9)	27(96.4)	26(92.9)	10.261	0.036
Minor Discomfort					1(3.6)		
Mild discomfort		1(3.6)	1(3.6)				
Moderate Discomfort		2(7.1)	1(3.6)	1(3.6)	1(3.6)		
Moderately Severe discomfort	2(7.1)						
Severe							

Discomfort							
Very severe discomfort	1(3.6)						
Ineffectual urge							
No discomfort at all	21(75.0)	21(75.0)	24(85.7)	25(89.3)	25(89.3)	23.315	<0.001
Minor Discomfort	1(3.6)	3(10.7)	1(3.6)		2(7.1)		
Mild discomfort		1(3.6)	1(3.6)	1(3.6)			
Moderate Discomfort		1(3.6)		1(3.6)			
Moderately Severe discomfort							
Severe Discomfort	2(7.1)	2(7.1)	2(7.1)	1(3.6)	1(3.6)		
Very severe discomfort	4(14.3)						
GERD Total Score	30(24,36)	19.5(10.25, 31.5)	11(3.0,20.50)	4(0,9)	1.5(0,3)	100.586	<0.001

(Values are expressed in n(%), Median(Q_1,Q_3). Friedman test is used. P<0.05 considered as statistically significant)

DISCUSSION

In this study Nuxvomica (18) showed marked improvement and Bryonia(3), Suphur(3), Natrummur (2), Arsenicumalbum (1), Carboveg (1), China(1), Lycopodium(1), Rhustox (1), Thuja(1)were also showed improvement.

This retrospective study explores that homoeopathic medicines are useful in treatment of GERD. Among all patients there is significant reduction in symptom score between first visit and fifth visit.

Taking into consideration the variable known to be associated with GERD ,house wives, students, daily wages had higher incidence. Subject with hepatitis, fatty liver had increased GERD association.

Subjects with moderate economic status 21(75.0) had higher prevalence than those with high 0(0.00) and low economic status low 7(25.0).Subjects with a low income had a significantly higher prevalence of GERD (11.69%) than those with a

medium income (8.42%) and those with a high income (7.68%) in a systemic review by Jorabar Singh Nirwan et al. [16]

The median age of patients with GERD was 40 years in a study by Shobna J. Bhatia & D. Nageshwar Reddy [17]in our study the mean age group was 47.9±12.5 years.

CONCLUSION

The study has demonstrated usefulness of homoeopathic treatment in management of GERD, which is reflected as significant reduction in the epigastric pain, heart burns, acid reflux, nausea, rumbling, bloating, burping , flatulence, constipation, hard stools, urgency to pass stool and ineffectual urge in our study after treatment. Results obtained from the study are quite encouraging. There is significant improvement in patients symptom score after homoeopathic medicines indicates there is effectiveness of homoeopathic medicines in the treatment of GERD. However, study of large sample size and compared with endoscopic finding were encouraged.

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