

A study on factors associated with Gastro-oesophageal Reflex Disease in correlation with Los-Angeles Classification in Upper GI scopy

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Abstract

Background: Gastro-Oesophageal Reflux Disease (GERD / GORD) is the pathological reflux of acidic contents from the stomach to the lower part of oesophagus. It is one the most common disease of the the upper gastrointestinal tract. The Los Angeles Classification is used to assess the severity of disease by assessing the degree of oesophagitis caused due to GERD.

Aims and Objectives: . To study the factors associated with GERD namely Sex of patient, Hiatus hernia, History Alcohol use and Smoking by using the Los Angeles Classification.

Materials and Methods: A prospective observational study was conducted on 100 patients between the age of 18-60 years who visited Rajah Muthiah Medical College

& Hospital, Annamalai University, Annamalainagar, Chidambaram having symptoms of regurgitation and heartburn. After getting the approval of ethical committee , and getting informed and signed consent from the patients, Upper Gastrointestinal endoscopy was done and severity of the reflux oesophagitis was observed.

Results: The Incidence of Hiatus Hernia was 33-56%. Males had a more severe disease. Patients with history of Smoking and Alcohol had proportionally more severe disease.

Conclusion: Most patients had mild to moderate reflux oesophagitis as per the Los Angeles Classification. The Incidence of Hiatus Hernia was comparable to previous similar studies. Males had a more severe disease. Patients

with history of Smoking and Alcohol had proportionally more severe disease..

Keywords: Los-Angeles Classification, Reflux oesophagitis, GERD , Upper GI scopy

Introduction

Gastro-Oesophageal Reflux Disease (GERD / GORD) is the pathological reflux of acidic contents from the stomach to the lower oesophagus. It is one the most common upper gastrointestinal disease.^[2] It can be due to various anatomical and physiological factors. Heartburn and Acid Regurgitation are the most commonest symptoms. The severity of disease can be assessed by observing the degree of oesophagitis caused by the reflux and grading it using the Los Angeles Classification. ^[1,3]

Materials And Methods

Prospective observational study was conducted on 100 patients aged between 18 – 60 years with presenting symptoms of regurgitation and heartburn during the period between August 2018 and January 2020 in Rajah Muthiah Medical College Hospital in Annamalainagar, Chidamabaram. After obtaining ethical committee approval, and getting informed and signed consent from the patients, Upper Gastrointestinal endoscopy was done and severity of Reflux oesophagitis was observed.

Inclusion Criteria

- Patients of both sex between the age of 18 - 60 years
- Patients presenting with Complaints of Heart burn and Acid regurgitation

Exclusion Criteria

- Pregnant women
- Patients found to have any growth in stomach on Endoscopy

Los Angeles Classification of Reflex Oesophagitis

Grade A One (or more) mucosal breaks, no longer than 5 mm, none of which extends between the tops of two mucosal folds.

Grade B One (or more) mucosal breaks more than 5 mm long, none of which extends between the tops of two mucosal folds.

Grade C One (or more) mucosal breaks that extend between the tops of two or more mucosal folds, but which involve less than 75% of the oesophageal circumference.

Grade D One (or more) mucosal breaks, which involve atleast 75% of the oesophageal circumference.

Results

Table 1: Grading in Relation to Sex (in 100 patients)

Grade	Total	Male	Female
0 (No Oesophagitis)	9	4	5
A	23	12	11
B	28	16	12
C	29	19	10
D	11	8	3
Total	100	59	41

Chart 1: Chart showing Grading in Relation to Sex (in 100 patients)

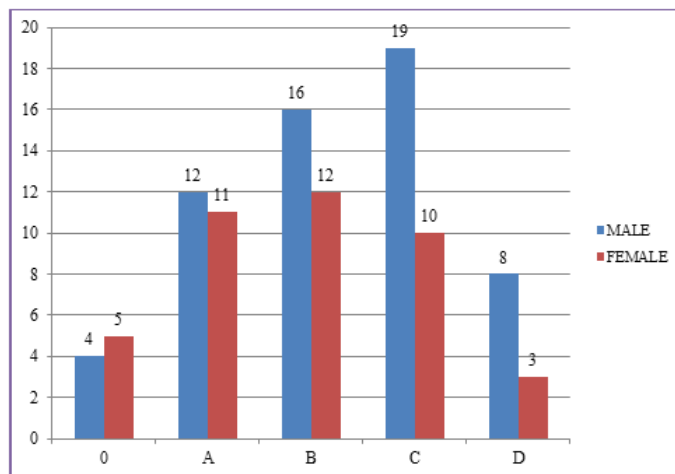


Table-2 Grading in Relation to Sex (in percentage for 100 patients)

Grade	Male %	Female %
0 (No oesophagitis)	6.7797	12.195
A	20.339	26.829
B	27.119	29.268
C	32.203	24.39
D	13.559	7.3171

Chart 2: Chart showing Grading in Relation to Sex (in percentage for 100 patients)

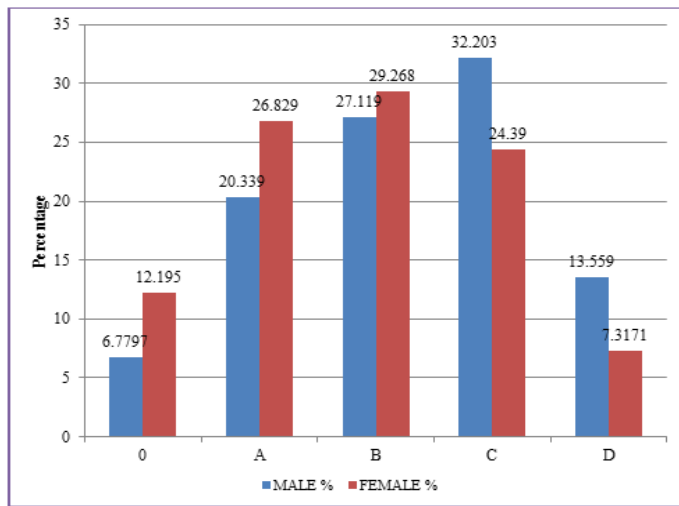


Table 3: Grading in relation to Hiatus Hernia

Hiatus Hernia (48 Out 100 Patients)			
Grade	Total Patients (100)	Number of Hiatus hernia patients (48)	% of Hiatus hernia patients
0 (No oesophagitis)	9	3	33.3333333
A	23	13	56.5217391
B	28	12	42.8571429
C	29	15	51.7241379
D	11	5	45.4545455

Chart 3 -Chart showing Grading in relation to Hiatus Hernia

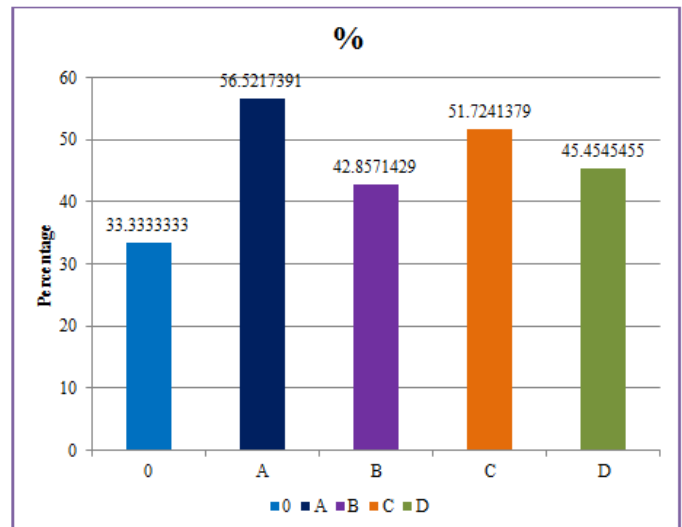


Table 4: Grading in relation to history of alcohol intake in males (34 out of 59 Males)

GRADE	Male Patients (59)	Males with History of Alcohol intake (34)	Percentage of males %
0 (No oesophagitis)	4	1	25
A	12	6	50
B	16	8	50
C	19	13	68.4
D	8	6	75

Chart 4A: Chart showing Grading in relation to history of alcohol intake in males

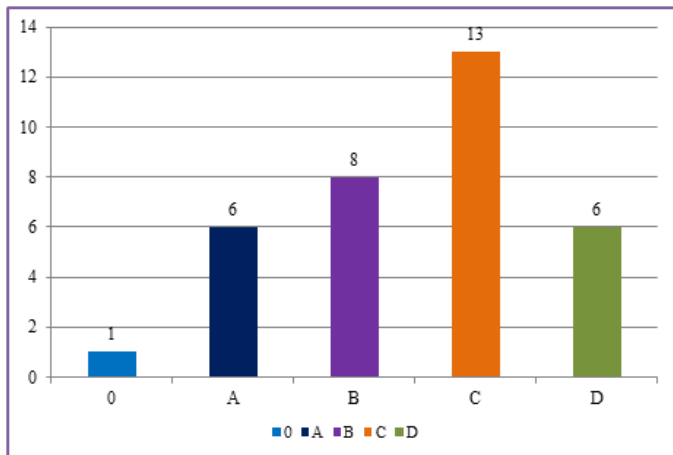


Chart 5A: Chart showing Grading in relation to History of Smoking in Males

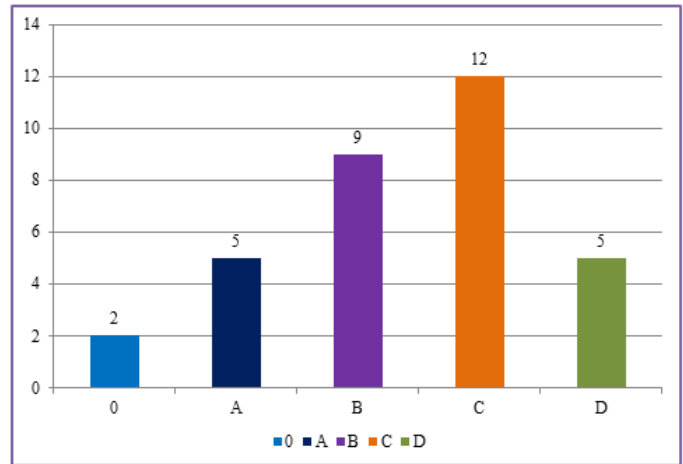


Chart 4B: Chart showing Grading in relation to history of alcohol intake in males (Percentage)

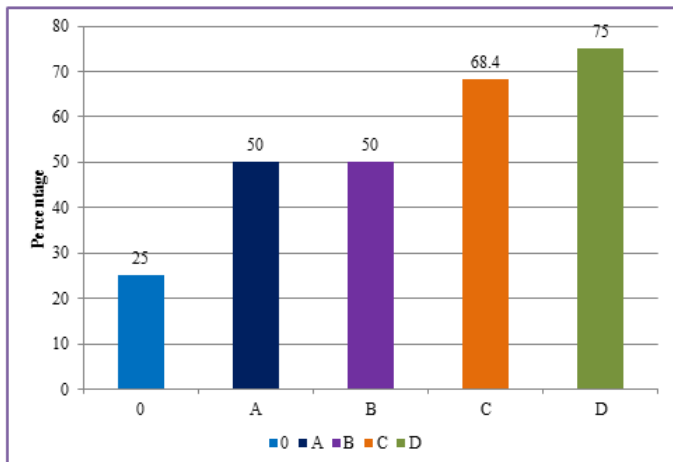


Chart 5B: Chart showing Grading in relation to History of Smoking in Males (Percentage)

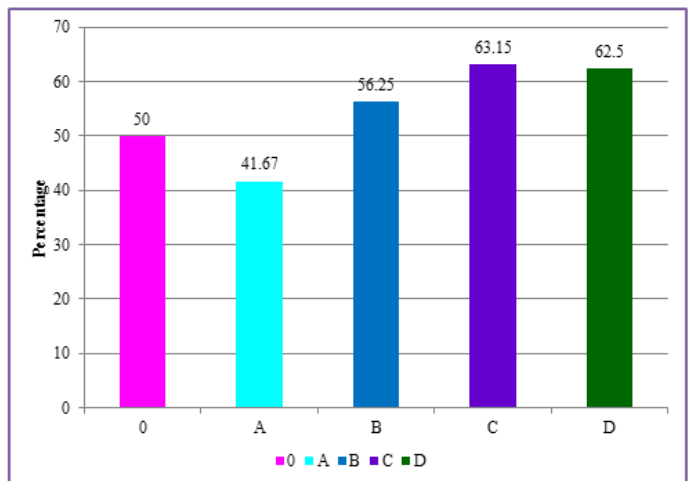


Table 5: Grading in relation to History of Smoking in Males (33 out of 59 Males)

Grading in relation to History of Smoking in Males			
GRADE	Male Patients (59)	Smoking Males (33)	% of Smoking Males
0	4	2	50
A	12	5	41.67
B	16	9	56.25
C	19	12	63.15
D	8	5	62.5

Discussion

Upper GI endoscopy is a very useful tool in assessing the disorders of the oesophagus and stomach. Though manometry pH-impedance monitoring is considered the gold standard for detection and characterisation of reflux episodes in GERD, it is expensive, interpretation is time consuming and not widely available.

According to the Lyon GERD Consensus of 2017, in the Los Angeles classification of reflux oesophagitis, the Grades C & D can be considered as conclusive evidence of GERD and Grades A & B can be considered as borderline evidence of GERD. [1,4,5]

So Upper GI scopy assessment of reflux oesophagitis can be used as a less expensive and easier mode of diagnosing GERD. It can also serve to assess the response to treatment by assessing oesophagitis healing.^[9,10]

The incidence of Hiatus Hernia in our study among the various degrees of oesophagitis was between 33% and 56%. This is in agreement with various studies done previously.^[6,7,8] Males had a proportionally more severe disease. Females had higher proportion of mild to moderate degrees of reflux oesophagitis. Male patients with history of Smoking had proportionally more severe degree of oesophagitis. A similar trend was seen in male patients with history of alcohol intake.

Conclusion

In Patients with GERD, the incidence of Hiatus Hernia was 33-56% in our study. Males had a more severe disease when compared to females. Male patients with history of Smoking and Alcohol had proportionally more severe disease. Upper GI endoscopy is a very useful simple tool in assessing the severity of GERD.

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