

Clinical Study of Acid-Peptic Disease in a Semi-Urban Setup in Western Uttar-Pradesh.

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ABSTRACT

Background: Acid peptic disease is a common morbidity in India. We aim to find the present dynamics of age, sex and causative factors in our semiurban setup in western Uttar-Pradesh. **Methods:** a prospective study was done to include patients with acid peptic like symptoms presenting between January 2016 to December 2017. Upper GI endoscopy was done in patients with severe and recurrent symptoms. **Results:** In our study, out of 488 patients, 24 presented with perforated ulcers while 255 patients underwent upper GI endoscopy. 42 patients had normal mucosa on endoscopy. Highest incidence was seen in the age group of 31-40 years. 68.86% of the patients had some sort of tobacco or alcohol intake. **Conclusion:** Peptic ulcer disease is still associated with considerable morbidity even in this era of proton pump inhibitors and H2 receptor blockers available as OTC products. The highest incidence was in the age group of 31-40 years. Lifestyle factors like smoking, alcohol intake, spicy, oily and salty food intake and tobacco chewing are present in majority of patients. Incidence of the disease in females is seen to be increasing.

Keywords: Acid-peptic disease, Peptic Ulcer..

INTRODUCTION

Peptic ulcer in India is common and has fluctuating incidence, variation in mean age of occurrence and gender specificity. It is more common among the south Indian population than north Indian population. It has been noticed that it is less acute and less likely to bleed and perforate as compared to the presentation in the west.^[1,2] It is associated with considerable morbidity and mortality worldwide, though it is a common disease, knowledge about its etiology is tenuous. There is strong correlation between presence of H. Pylori infection, socioeconomic status and peptic ulcer.^[3] Regardless of the established etiological role of H. pylori, its actual distribution and association with related disease is controversial especially in Asian countries like Thailand, Malaysia, India, Pakistan and Bangladesh whereas the occurrence is comparatively lower in developed Asian countries like Japan , China , South Korea.^[4-6] The purpose of this study was to identify the mean age of occurrence, sex preponderance, effect of life style, eating habits in occurrence of peptic ulcer.

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MATERIALS AND METHODS

This prospective study has been carried out in the department of general surgery in Muzaffarnagar medical college, UP from January 2016 to December 2017. In this study, all the patients attending general surgery and medical OPD, emergency services and patients admitted in surgical wards for treatment of peptic ulcer and its complications were included. In all these cases, thorough clinical history has been taken and in some cases endoscopic and radiological examination was performed to establish the diagnosis. Written informed consent for inclusion in the study was taken after detailed explanation of study.

Inclusion Criteria

Patients, above age of 16 years with symptoms and signs of acid peptic disease and acute abdomen which turned out gastritis and duodenal perforation.

Exclusion Criteria

Patients on corticosteroids, immunosuppressive agents, post gastric surgery, upper GI malignancies.

RESULTS

In the total of 488 patients included, 302 were males and 186 were females. It was 1.6 times more

common in males than in females. The highest incidence was in the age group of 31-40 years (32.78%) and it was low under 20 years (0.61%) and above 70 years (2.06%).

Table 1: No. of cases

Age in years	Male	Female	Percentage
16-20	1	2	0.61
21-30	102	41	29.30
31-40	93	67	32.78
41-50	48	51	20.28
51-60	32	15	9.63
61-70	17	9	5.32
71-80	9	1	2.06
Total	302	186	100
Chi Square	19.191		
P value	0.004		
Significance	HS		

Table 2: Symptoms and signs of 488 patients

Symptoms and signs	No. of patients	Percentage
Pain	385	79
Vomiting	146	30
Dysphagia	36	7.3
Hematemesis	25	5
Malena	87	18
Heart burn	156	32
Constipation	136	28
Perforation	24	5
Epigastric tenderness	130	27
Chi Square	798.712	
P value	<0.001	
Significance	HS	

[Table 2] In our study Pain in epigastrium was present in 79% of patient followed by Burning sensation in chest 156 patient (32%), melena in 87 patients (18%) and 24 patients (5%) came with acute abdomen and on clinical examination suggestive of perforation which was confirmed by x-ray abdomen in standing position with both domes of diaphragm.

Table 3: Endoscopic findings of 255 patients

Endoscopic findings	No. of cases	Percentages
GERD	46	18
NAD	42	16.40
Gastritis without ulcer	51	19.92
Gastritis with gastric erosion	36	14.06
Duodenal ulcer	24	9.37
Gastric ulcer	8	3.13
Duodinitis	19	7.42
Duodeno gastric reflux	7	2.73
Ulcer with bleeding	4	1.56
Antral diverticulum	1	0.39
Hiatus hernia	21	8.20
Candida infection	4	1.56
Chi Square	127.354	
P value	<0.001	
Significance	HS	

Out of 488 patients, 255 patients underwent upper GI endoscopy, 42 patients had normal mucosa and

no features of ulcer and gastritis, 87 patients had gastritis. There were 24 (9.37%) patients with duodenal ulcer (DU), 8 (3.13%) with gastric ulcer (GU), and 19 (7.42) with duodenitis, 4 (1.56%) patients with ulcer bleeding and 21(8.20%) patients with hiatus hernia.

Table 4: Correlation between alcohol and smoking with ulcer

	No. of patients	Percentage
Alcohol	84	17.2
Smoking	92	18.8
Tobacco chewing	102	20.90
Both alcohol and smoking	58	11.88
No addiction	152	31.14
Total	488	100
Chi Square	48.803	
P value	<0.001	
Significance	HS	

Table 5: Aggravating Factors

Food items	No. of cases	Percentage
Spicy , oily food , salty foods	366	75
Pickle and vinegar	410	84
Coffee and tea	366	75
Soft drink	400	82
Non vegetarian diet	346	71

DISCUSSION

Peptic ulcer disease is common and is associated with considerable morbidity and mortality worldwide. There seems to be a wide geographical variation in its prevalence.^[7,8] In previous studies it was reported to be more common in south India,^[9-11] also believed to be different from the disease in west in being less acute and ulcer less likely to bleed or perforate.^[9,12] In our study it was 1.6 times more common in males The male/female ratio was 18 : 1 in Dogra's (1940),^[10] series ,15 :1 in Hadley's (1959) series,^[11] 16: 1 in Raghavachari's (1959) series,^[12] 4.2:1 in Goenka MK (1991) study,^[13] whereas it is 1.6 : 1 in the present series. Albaqawi et al in their series found 2.1:1 times more common in females,^[14] Kim et also showed it to be 1.6 time more common in females,^[15] and 1.06times frequent in females in a study by Antonio Gonzalez Perez et al,^[16] whereas Barazandeh et al found it to be 1.05 times frequent in females with ulceration more common in males.^[17] The newer papers showed increased incidence in females compared to older studies. We propose that this may be due to increasing smoking and stress in females.

The prevalence of peptic ulcer disease has been shown to increase with age in study by Kawai K,^[18] and Malhotra S,^[19] and most cases occurring after late fifties and peaking after sixty five years, however in our study, highest incidence was seen in the age group of 31-40 years (32.78%) and was low under 20 years (0.61%) and above 70 years (2.06%) probably due to small sample size. The frequent age

group may be due to the essentiality that the period which is full of responsibilities having physical and mental stress.

In our study, out of 488 patients, 24 presented with perforated ulcers while 255 patients underwent upper GI endoscopy. 42 patients had normal mucosa on endoscopy and no features of ulcer. There were 24 (9.37%) patients with duodenal ulcer (DU), 8 (3.13%) with gastric ulcer (GU), and 19 (7.42) with duodenitis, 87(33.98%) patients with gastritis and 4 (1.56%) with ulcer bleeding and 21(8.20%) patients with hiatus hernia. Ratio of duodenal to gastric ulcer being 3:1. Goenka MK et al in his study on 5,948 patients with upper gastrointestinal symptoms, detected peptic ulcers in 1,188. There were 920 patients with duodenal ulcer (DU), 185 with gastric ulcer (GU), ratio of duodenal to gastric ulcer being 4.9:1.^[13]

Dyspepsia affects 10 % to 40 % of general population. The term 'dyspepsia' has included a variable combination of symptoms such as epigastric pain, bloating, belching, nausea, early satiety, heartburn and regurgitation. In our study Pain in epigastrium was present in 79% of patient followed by Burning sensation in chest 156 patient (32%), malena in 87 patients (18%) and 24 patients (5%) came with acute abdomen and on clinical examination suggestive of perforative peritonitis. Malhotra SL reported similar symptoms in his study.^[19]

Certain lifestyle factors such as consumption of tobacco, alcohol, tea, coffee, betel nut and spicy foods are believed to stimulate gastric acid secretion. Our study revealed smoking, alcohol and chewing tobacco is associated with development of peptic ulcer disease (*p* value <0.01). A Japanese study of men aged 45 years and older revealed that current smokers were at higher risk of both gastric and duodenal ulcers compared with non-smokers.^[20] A prospective cohort study in Denmark showed that tobacco smoking remained an independent risk factor for PUD despite controlling for *H. pylori* infection status.^[21] However, another study failed to confirm these findings for PUD risk in smokers compared with nonsmokers.^[22] Current cigarette smoking, current alcohol intake, as well as coexistence of stressful conditions within six month period were strong risk factors for perforation.^[23] Hence, we believe that ulcer patients should be advised to stop smoking.

CONCLUSION

Peptic ulcer disease is still associated with considerable morbidity even in this era of proton pump inhibitors and H2 receptor blockers available as OTC products. We thus propose that acid peptic disease is of multi factorial origin. We found disease to affect younger age group. Lifestyle factors like smoking, alcohol intake, spicy, oily and salty food

intake and tobacco chewing are present in majority of patients. This may be a cause for the continued high incidence of acid peptic disease. Incidence of the disease in females is seen to be increasing. We propose that this may be due to multiple factors including added burden of work pressures, increasing smoking and stress.

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