

Upper Gastrointestinal Endoscopic Findings of Patients Presenting with Dyspepsia - A Tertiary Care Centre Experience

Radhakrishna Yellapu¹, Subbarayudu Boda²

ABSTRACT

Introduction: Dyspepsia is a common presenting complaint encountered in the outpatient department of general medicine and is the most common indication for upper gastrointestinal endoscopy. Aim of the study was to evaluate Upper Gastro Intestinal endoscopic findings in patients presenting with dyspepsia, to find the relative occurrence of individual findings in different age groups and to compare with earlier studies.

Material and methods: This was a retrospective, observational study in GITAM Institute of Medical Sciences and Research, a tertiary care centre, Visakhapatnam, Andhra Pradesh, India. Data on patients presenting with dyspepsia and scheduled for upper gastrointestinal (UGI) endoscopy between June 2018 and June 2019 were collected.

Results: Two hundred and seven patients with dyspepsia were assessed by UGI endoscopy. Out of these, 121 (58.4%) were male and 86 (41.5%) were female. The mean age was 43.8±14.2 years. The endoscopic findings were GERD (15.4%), erosive esophagitis (11.1%), gastritis (52.6%), duodenitis (3.3%), duodenal ulcer (4.8%), gastric ulcer (6.7%), hiatus hernia (10.2%), and mixed findings in 37.1% of patients. Gastric cancer was identified in 2.4% of patients. Endoscopy findings were normal in 13 (6.3%) patients.

Conclusion: We conclude that dyspepsia is a common indication for endoscopy. The frequency of male subjects is higher and gastritis is the most common pathology followed by reflux esophagitis. These were associated with increasing age. GI malignancy was uncommon and higher in elderly patients. The upper GI endoscopy is the best investigation tool for evaluating dyspepsia. Though it is an invasive procedure, dyspeptic patients with alarm symptoms must be evaluated with upper GI endoscopy. Endoscopy can be avoided in most young patients with dyspepsia without alarm features.

Keywords: Dyspepsia, Endoscopy, Gastritis, Duodenitis, Ulcer

INTRODUCTION

Dyspepsia is a poorly characterized condition thought to originate from anatomic or functional disorders of the upper GI tract.^{1,2,3} Dyspepsia is not a diagnosis, but constellation of symptoms related to the upper gastrointestinal tract including epigastric discomfort, bloating, indigestion, early satiety, belching or regurgitation, nausea, heartburn and anorexia. "Rome III criteria" define dyspepsia as 1 or more of the following 3 symptoms for 3 months within the initial 6 months of symptom onset⁴: (1) postprandial fullness, (2) early satiety, and (3) epigastric pain or burning. Globally, the prevalence of dyspepsia is 20-30% but in India the

prevalence is estimated to be around 30 to 49%.^{5,6}

This study was undertaken to determine the prevalence of significant endoscopic lesions in patients presenting with dyspepsia.

MATERIAL AND METHODS

This was a retrospective, observational study in GITAM Institute of Medical Sciences and Research, a tertiary care centre, Visakhapatnam, Andhra Pradesh, India. The patients included in the study were either referred from inpatient or outpatient department and their age group was between 18-80 years. Data on patients presenting with dyspepsia and scheduled for upper gastrointestinal (UGI) endoscopy between June 2018 and June 2019 were collected. Variables like age and gender were taken into consideration. In this study, a total 207 patients were recruited and the data was entered in MS-Excel sheet for analysis. Institutional ethics committee approval was taken and confidentiality of patients was maintained.

RESULTS

Two hundred and seven patients with dyspepsia were assessed by UGI endoscopy. Out of these, 121 (58.4%) were male and 86 (41.5%) were female. The mean age was 43.8±14.2 years. Maximum of these were in age groups between 35 to 44 years accounting for 25%, followed by 45-54 years accounting for

Age (in years)	Number (%)
19-24	13(6.3)
25-34	43(20.8)
35-44	52(25.1)
45-54	47(22.7)
55-64	35(16.9)
65-74	12(5.8)
>75	05(2.4)
Total	207

Table 1:

¹Assistant Professor, Department of General Medicine, ²Associate Professor, Department of General Medicine, GITAM Institute of Medical Sciences and Research, Visakhapatnam, Andhra Pradesh, India.

Corresponding author: Dr B.Subbarayudu, Associate Professor, Department of General Medicine, GITAM Institute of Medical Sciences and Research, Visakhapatnam, Andhra Pradesh, India

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22% and more than 55 years of age accounting for 16.9% (Table1). Most of the endoscopic findings were distributed in stomach followed by oesophagus (Table2).The endoscopic findings (Table3) were GERD (15.4%), erosive esophagitis (11.1%), gastritis (52.6%), duodenitis (3.3%), duodenal ulcer (4.8%), gastric ulcer (6.7%), hiatus hernia (10.2%), and mixed findings in 37.1% of patients. Gastric cancer was identified in 2.4% of patients. Endoscopy findings were normal in 13(6.3%) patients. Abnormal OGD were more common in patients of older age group compared to younger age group (Table4).

DISCUSSION

Dyspepsia is a common presenting complaint for both primary care physicians and gastroenterologists. The symptoms of dyspepsia overlap with many conditions such as GERD, peptic ulcer disease (PUD), irritable bowel syndrome (IBS), side effects of medications (such as NSAIDs, steroids), pancreatitis, biliary tract disease, motility disorders, unstable angina and malignancy. The prevalence

of GERD and irritable bowel syndrome is higher in patients with dyspepsia compared with patients without dyspepsia.^{7,8} Dyspeptic patients younger than 50 years of age and without alarm features are commonly evaluated by 1 of 3 methods: Figure:1⁹

(1) non-invasive testing for Helicobacter pylori (the “test and treat” approach), (2) an empiric trial of acid suppression, or (3) initial upper GI endoscopy. Alarm features for dyspeptic patients include age>50 years, unexplained weight loss, upper GI bleeding or iron deficiency anaemia, persistent vomiting, dysphagia, odynophagia and family history of upper GI malignancy in a first-degree relative. Dyspeptic patients older than 50 years of age or those with alarm features should undergo upper GI endoscopy immediately. Endoscopy should also be considered for patients in whom there is a strong suspicion of malignancy even in the absence of alarm features. Upper GI endoscopy is the gold standard first line investigation in the work up of a patient with dyspeptic symptoms and is also useful for differentiating organic dyspepsia from functional dyspepsia.

The present study was undertaken to evaluate the spectrum of upper gastrointestinal (GI) endoscopy findings in dyspeptic patients with or without alarm features. In our study, male preponderance was higher which was similar to other studies.^{10,11} The mean age was 43.8±14.2 years which is similar to other studies^{12,13} with very few presenting before the age of 20 years, peaking in the fourth and fifth decade (Table1).

S. No	Table2: Distribution of site of Endoscopic findings	Number (%)
1	Oesophagus	77(37.1)
2	Stomach	128(61.8)
3	Duodenum	20(9.6)
4	Mixed	77(37.1)
5	Normal	13 (6.3)

Table-2:

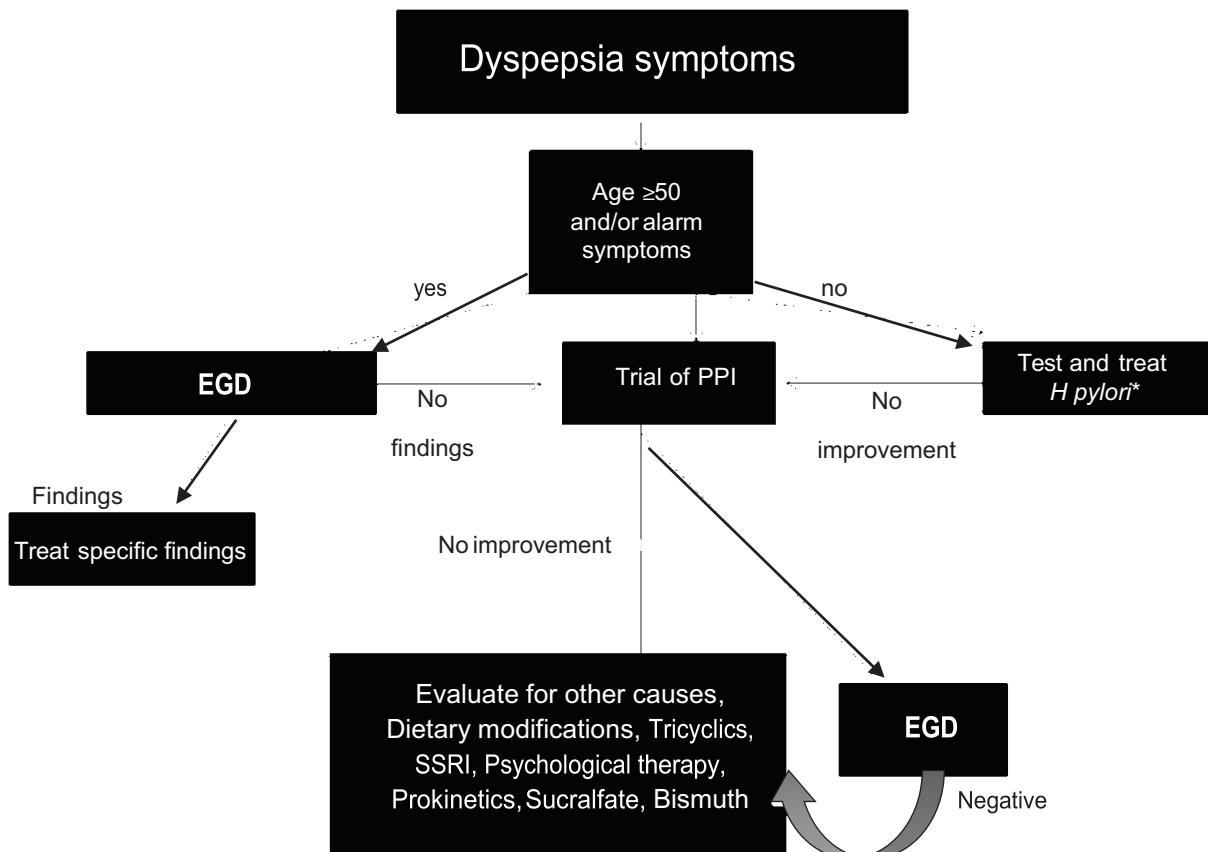


Figure-1: Approach to dyspepsia

Most of the endoscopic findings were distributed in stomach followed by oesophagus (Table2). The endoscopic findings (Table3) were gastritis (52.6%), GERD (15.4%), erosive esophagitis (11.1%), hiatus hernia (10.2%), gastric ulcer (6.7%), duodenal ulcer (4.8%), duodenitis (3.3%) and mixed findings in 37.1% of patients. The most common endoscopic finding in our study was gastritis followed by reflux esophagitis which is similar to study conducted by Rajendran et al.²³ In our study, gastric ulcer was more common than duodenal ulcer which is in contrast to study done by Shrestha et al²¹ in which they found duodenal ulcer was more common. Gastric cancer was identified in 2.4% of

patients which is closely similar to study done by Khan N et al.²² In our study, most of the dyspeptic patients (93.7%) had organic causes which were diagnosed with endoscopy which is consistent with the findings of the previous studies.^{14,15} Endoscopy findings were normal in 13(6.3%) patients which is in contrast to 20-50% in another study.¹⁷ Dyspepsia without evidence of organic disease is termed non-ulcer or functional dyspepsia.⁴

Peptic ulcer, esophagitis and erosive gastroduodenitis were associated with increasing age (Table 4) which is similar to study done by Gado et al.¹⁰ UGI malignancy was not found in dyspeptic patients younger than 30 years old. UGI malignancy was an uncommon finding and its incidence increases as the age advances. (Table 4). Previous studies showed that the incidence and risk of gastric malignancy was high after 50 years of age with its highest peak in the seventh decade.²⁰ The prevalence of significant lesions in young patients is low and is consistent with previous studies.^{17,18,19} The number of patients with other lesions such as oesophageal candidiasis, gastric polyp, oesophageal stricture is too small to compare with prior published data. Some patients with dyspepsia had post cricoid web, gastric polyp, hook worm infestation and oesophageal varices as incidental findings, which may not be attributed to their symptomatology.

Limitations of our study are retrospective study with small sample size and hence a small number of significant lesions and tests for H. pylori infection were not available in our institute.

CONCLUSION

Thus, we conclude that dyspepsia is a common indication for endoscopy. The frequency of male subjects is higher and gastritis is the most common pathology followed by reflux esophagitis. These were associated with increasing age. GI malignancy was uncommon and higher in elderly patients. The upper GI endoscopy is the gold standard first line investigation for evaluating dyspepsia and is the investigation of choice for targeting therapy. Though it is an invasive procedure, dyspeptic patients with alarm symptoms must be evaluated with upper GI endoscopy. Even in endoscopy negative patients, the advantage of a negative endoscopy is reduction in patient's anxiety and provides sufficient patient reassurance. Endoscopy can be avoided in most young patients with dyspepsia without alarm features because the benefits of endoscopy in these patients are less as evidenced by our study. However, well designed, prospective studies with large sample size are needed for better conclusions.

	Number (%)
1) ESOPHAGUS	
Normal	130(62.8)
Erosions	23(11.1)
Candidiasis	02(0.96)
Varices	07(3.3)
Stricture	02(0.96)
Adenocarcinoma	02(0.96)
GERD	32(15.4)
Post Cricoid Web	08(3.8)
Ulcer	01(0.5)
2) GE JUNCTION	
Malignancy	01(0.5)
LAX GE junction	97(46.8)
Normal	82(39.6)
Para oesophageal Hernia	01(0.5)
Polyp	01(0.5)
Sliding Hiatus Hernia	21(10.2)
Ulcer	04(1.9)
3)STOMACH:	
GASTRITIS-	
Erosive	95(45.8)
Erythematous	12(5.7)
Nodular	02(0.96)
Atrophic	0(0)
Ulcer	14(6.7)
MALIGNANCY-	
Adenocarcinoma	05(2.4)
Lymphoma	0(0)
4) DUODENUM	
Nodules	02(0.96)
Erosions	05(2.4)
Ulcer	10(4.8)
Hook Worm Infestation	02(0.96)
Malignancy	01(0.5)

Table-3: Specific endoscopic findings

		<30 yrs	30-50 yrs	>50 yrs
1	Peptic ulcer	4 (1.9%)	12 (5.7%)	13(6.2%)
2	Esophagitis	12 (5.7%)	5 (2.4%)	6(2.8%)
3	Erosive gastroduodenitis	1 (0.4%)	2 (0.9%)	2(0.9%)
4	Oesophageal candidiasis	1 (0.4%)	1 (0.4%)	0(0%)
5	GERD	7 (3.3%)	21 (10.1%)	4(1.9%)
6	UGI malignancy	0 (0%)	2 (0.9%)	7(3.3%)

Table-4: Findings

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