

Endoscopic Findings Among Patients Presenting with Dyspepsia in Tertiary Care Hospital

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ABSTRACT

Objective: The objective of this study was to determine the frequency of various endoscopic findings among patients presenting with dyspepsia in tertiary care hospital.

Study Design: Cross sectional study

Results: In our study, out of 240 cases of dyspeptic symptoms diagnosed clinically by a consultant, 28.33%(n=68) were between 20-40 years of age, 49.59%(n=119) were between 41-60 years and 22.08%(n=53) were between 61-80 years of age, mean \pm sd was calculated as 50.30 \pm 12.96 years. 49.58%(n=119) were male and 50.42%(n=121) were females. Mean duration of symptoms was calculated as 8.71 \pm 2.34 months. Frequency of endoscopic findings among patients presenting with dyspepsia was recorded as 7.92%(n=19) had esophagitis, 5.42%(n=13) had gastritis, 4.58%(n=11) had gastric ulcer, 7.08%(n=17) had Duodenal ulcer while 75%(n=180) had functional dyspepsia.

Conclusion: We concluded that on assessment of endoscopic findings among patients presenting with dyspepsia in tertiary care hospital, functional dyspepsia was found to be more frequent following by esophagitis and duodenal ulcer. The use of endoscopy may help the physicians in making guidelines to manage dyspepsia.

INTRODUCTION

The term dyspepsia is a medical disorder used for difficult digestion consisting of a variety of symptoms.¹The prevalence of dyspepsia in the western world is approximately 20% to 25%.¹ Dyspepsia is the most common, nonspecific complaint evaluated by gastroenterologists but few studies are available regarding its current epidemiology, evaluation and costs.^{2,3}

Dyspepsia can be split into 2 main divisions: "Organic" and "Functional Dyspepsia"(FD).¹ FD is the most common cause of chronic dyspepsia having no endoscopically observable structural disease.^{4,5} Factors for FD are genetic predisposition, Helicobacter pylori infection, other organisms, alcohol use, NSAIDS, smoking and psychosocial factors.^{1,5} Organic causes of dyspepsia are peptic ulcer, gastro esophageal reflux disease, gastric or esophageal cancer, pancreatic or biliary disorders, intolerance to food or drugs and other infectious or systemic diseases.^{1,4}

Peptic ulcer is disruption of mucosal integrity of the stomach and/duodenum.⁴ Even with advancement in treatment, the in-hospital mortality rate remains high; 13% and rebleeding is 15%.⁶Various tools are used for the evaluation of dyspepsia such as upper gastrointestinal

endoscopy, abdominal ultrasound, gastric emptying testing (breath test, scintigraphy, or magnetic resonance imaging), and gastric accommodation evaluation.¹ But most reliable tool to find out etiology of dyspepsia is upper gastrointestinal endoscopy.^{7,8}

Significant geographical and racial variations have been observed in literature regarding endoscopic findings among dyspeptic patients. In the study by Syed Onaiz Anwar and his colleagues the endoscopic findings revealed FD 76%, duodenal ulcers 11%, gastric ulcer 4%, esophagitis 9%⁹ while the study by Iqbal Haider showed FD 26%, duodenal ulcer 23%, gastric ulcer 10%, esophagitis 12% and gastritis 20% in dyspeptic patients.¹⁰

Marcel JM Groenen concluded duodenal ulcer 3.5% and gastric ulcer 2.4% in his patients with dyspepsia.⁸ Rationale of this study was to assess the endoscopic findings among patients presenting with dyspepsia in tertiary care hospital. Dyspepsia is amongst the most frequently encountered complaint in medical and GI OPD worldwide. The term also is somewhat loosely applied and treated due to lack of International consensus. Studies abound on endoscopic findings of dyspepsia as the findings vary across the communities. Even

local studies as mentioned above have ambiguity in results.

OPERATIONAL DEFINITIONS

Dyspepsia: It is recurrent pain or discomfort centered upper abdomen, accompanied by one or more of the following symptoms such as postprandial fullness, bloating, belching, nausea, vomiting or epigastric burning on most of the days per week (atleast 5 days/week, after every meal) for atleast 6 months.

Endoscopic Findings

Esophagitis: It is inflammation of esophageal lining.

Gastritis: It is inflammation or swelling of stomach mucosa.

Peptic Ulcer: It is a breach in the mucosa that extends through the muscularis mucosae and is usually 5mm in diameter. There are two types; gastric and duodenal ulcers, occurring in the stomach or duodenum respectively.

Functional dyspepsia: Patients in whom no endoscopic lesion will be found in the upper GIT will be considered to have FD.

MATERIALS AND METHODS

This cross sectional study was carried out in Jinnah hospital Lahore (Medical Unit II)

Sample Size: Sample size of 240 cases was calculated with 95% Confidence level, 3% margin of error and taking expected percentage of peptic ulcer i.e. 6 % in patients presenting with dyspepsia.

Sampling Technique: Non probability, purposive sampling

SAMPLE SELECTION

Inclusion Criteria

1. Age 20-80 years of both genders having dyspeptic symptoms diagnosed clinically by a consultant (as per operational definitions).

Exclusion Criteria:

1. Patients having contraindications for endoscopy e.g.: hemodynamically unstable (systolic B.P<100mmHg), cardiac failure symptoms as orthopnea or paroxysmal nocturnal dyspnea(on history).
2. Having co-morbid conditions as cerebrovascular accident (neurological examination), ischemic heart disease (ECG

changes), chronic renal failure (urea >42mg/dl, creatinine>1.5mmol/L)

3. Patients with liver cirrhosis (on abdominal ultrasound coarse shrunken liver)
4. Patients taking H2 blocker or proton pump inhibitor for more than one week.
5. Patients in shock (B.P <90/60mmHg, pulse >100bpm) or having Active Upper GI bleed determined on clinical examination.

DATA COLLECTION PROCEDURE

240 subjects, after considering the inclusion and exclusion criteria were recruited for the study from Medical OPD of Jinnah Hospital, Lahore. After taking informed consent demographic information like name, age, sex, contact was obtained. Then patients were advised for overnight fast. On next day, patients were referred for Upper gastrointestinal endoscopy by using videogastroscope Olympus model GIF 160 that performed by a consultant gastroenterologist upto second part of duodenum. Complete tract was assessed carefully to find the esophagitis, gastritis, duodenal ulcer and gastric ulcer and functional dyspepsia. All the information was collected in a structured proforma.

DATA ANALYSIS

The data was analyzed after entering it in SPSS version 17.0. Quantitative variables like age, duration of symptoms were measured in the form of mean \pm SD. Qualitative variables like gender and endoscopic finding (esophagitis, gastritis, peptic ulcer and functional dyspepsia) measured in the form of frequency and percentages. Data was stratified for age (20-40, 41-60 and 61-80years) and gender (male/female), and duration of symptoms. Groups comparison was done by using chi-square test taking p-value<0.05 as significant.

RESULTS

A total of 240 cases were enrolled after considering the inclusion/exclusion criteriatio assess the endoscopic findings among patients presenting with dyspepsia in tertiary care hospital. Age distribution of the patients was done which shows that 28.33%(n=68) were between 20-40 years of age, 49.59%(n=119) were between 41-60 years and 22.08%(n=53) were between 61-80 years of age, mean \pm sd was calculated as 50.30 \pm 12.96 years. (Table No. 1)

Table 1: Age Distribution(n=240)

Age(in years)	No. of patients	%
20-40	68	28.33
41-60	119	49.59
61-80	53	22.08
Total	240	100

Mean±SD: 50.30±12.96

Gender distribution of the patients was done which shows 49.58%(n=119) were male and 50.42%(n=121) were females. (Table No. 2).

Table 2: Gender Distribution (n=240)

Gender	No. of patients	%
Male	119	49.58
Female	121	50.42
Total	240	100

Mean duration of symptoms was calculated as 8.71±2.34 months.(Table No. 3)

Table 3: Mean Duration of Symptoms (n=240)

Duration of symptoms	Mean	SD
	8.71	2.34

Frequency of endoscopic findings among patients presenting with dyspepsia was recorded as 7.92%(n=19) had esophagitis, 5.42%(n=13) had gastritis, 4.58%(n=11) had gastric ulcer, 7.08%(n=17) had Duodenal ulcer while 75%(n=180) had functional dyspepsia. (Table No. 4)

Table 4: Endoscopic Findings Among Patients Presenting With Dyspepsia(n=240)

Endoscopic findings	No. of patients	%
Esophagitis	19	7.92
Gastritis	13	5.42
Gastric ulcer	11	4.58
Duodenal ulcer	17	7.08
Functional dyspepsia	180	75
Total	240	100

Chi Square test2.450

DISCUSSION

Symptoms of dyspepsia like upper abdominal discomfort, postprandial fullness, belching, nausea and early satiety are common among general population. Most of the patients presenting with dyspepsia have underlying functional dyspepsia with normal endoscopic findings while organic

lesions like oesophagitis, carcinoma stomach, gastric and duodenal ulcers have findings on endoscopy. We planned this study with the view that local studies have ambiguity in results.

In our study, out of 240 cases of dyspeptic symptoms diagnosed clinically by a consultant, 28.33%(n=68) were between 20-40 years of age, 49.59%(n=119) were between 41-60 years and 22.08%(n=53) were between 61-80 years of age, mean±sd was calculated as 50.30±12.96 years. 49.58%(n=119) were male and 50.42%(n=121) were females. Mean duration of symptoms was calculated as 8.71±2.34 months. Frequency of endoscopic findings among patients presenting with dyspepsia was recorded as 7.92%(n=19) had esophagitis, 5.42%(n=13) had gastritis, 4.58%(n=11) had gastric ulcer, 7.08%(n=17) had Duodenal ulcer while 75%(n=180) had functional dyspepsia.

Our findings are in agreement with a study by Syed Onaiz Anwar and his colleagues who recorded the endoscopic findings as FD 76%, duodenal ulcers 11%, gastric ulcer 4%, esophagitis 9%.⁹ Our findings are in contrast with a study by Iqbal Haider showing FD 26%, while we agreed with other findings such as duodenal ulcer 23%, gastric ulcer 10%, esophagitis 12% and gastritis 20% in dyspeptic patients.¹⁰

The high prevalence of dyspepsia symptoms among population has resulted in studies to look for the role of endoscopy in evaluating its causes. Results of different cohort studies of endoscopic findings in dyspeptic symptoms have shown high prevalence of various causes among patients. Adang and colleagues¹¹ studied 2900 consecutive patients in a referral practice and found that 21% of dyspeptic patients aged 45 years or less and 25% of those over 45 years had significant pathological findings on upper gastrointestinal endoscopy. In another cohort study of 2253 dyspeptic patients, Mansi and colleagues¹² found about 70% prevalence of major and minor pathology. Three cohort studies in general practice setup showed a high prevalence of major pathology (20—50%) including carcinoma(2%).¹³⁻¹⁴

Endoscopy helps in improving quality of life and reducing unnecessary expenditure on empirical therapy. It also helps in detection of peptic ulcer and carcinoma. Impact of early endoscopy versus empiric treatment was evaluated in one cohort study and three randomized controlled trials. In a study of 196 dyspeptic patients (mean age 43 years) before and

after endoscopy, Wiklund and colleagues¹⁵ found a significant improvement in quality of life and physical health as a result of endoscopy.

However, by assessing the endoscopic findings in patients with complains of dyspepsia may help the physicians in making guidelines to manage dyspepsia due to different causes and help us in early diagnosis and treatment of such patients which may not only improve patient compliance to treatment but also help them to achieve long term cure.

CONCLUSION

We concluded that on assessment of endoscopic findings among patients presenting with dyspepsia in tertiary care hospital, functional dyspepsia was found to be more frequent following by esophagitis and duodenal ulcer. The use of endoscopy may help the physicians in making guidelines to manage dyspepsia.

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