



A Clinical Study Of Upper Gastrointestinal Endoscopy Findings In Patients Presenting With Dyspepsia

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Abstract

Introduction: Dyspepsia is affecting about 25% of the general population in developed nations and it is a major cause of medical visits. New patients comprise about 10% of the population every year. Dyspepsia majorly affects the quality of life and it is a major burden given social costs. Directly the expenses are for laboratory tests, medical consultation, and drugs and indirectly by absence from work. Dyspepsia refers to a spectrum of diseases and a heterogeneous group of symptoms confined to the upper abdomen. Dyspepsia is a vague term used to explain the upper abdominal collection of symptoms like indigestion, fullness, early satiety (not able to complete the meals), bloating, belching, nausea, epigastric discomfort or pain, and anorexia. Indigestion is very common in the general population; almost all have had indigestion at some time in their lifetime.

Aim & Objectives: To study the endoscopic presentation of dyspepsia. 2. Early detection of esophagus gastroduodenal carcinoma.

Methodology: the study was conducted Department of surgery, at the Government medical college, Nagapattinam during the period of 3 months from June 2021 to August 2021 were admitted to know the various upper gastrointestinal endoscopic findings in patients presenting with dyspepsia. The patient selection was by convenience sampling. Dyspeptic patients were included in this study with their informed consent. A detailed clinical history was elucidated, followed by careful clinical examination, which was recorded as per the proforma. All the patients included in the study underwent upper gastrointestinal endoscopy and the findings were noted.

Results: Out of 140 patients, 112 (78.9%) patients had epigastric pain and discomfort as their chief complaint whereas nausea and vomiting were present in 100 (72.8%) patients. The other complaints were heartburn 85 (59.9%), food intolerance 70 (49.3%), indigestion 65 (45.8%), and loss of appetite and weight 47 (33%). In the present study, clinically significant endoscopic findings were observed in 73 patients accounting for 52.14%. Gastritis was by far the most common finding (23.6%). The next common findings were duodenitis, and gastric ulcers accounting for 6.4% each.

Conclusion: From the present study of "A clinical study of various findings in upper gastrointestinal endoscopy in patients presenting with dyspepsia". On endoscopic examination, gastritis accounted for the majority of the cases. The incidence of malignancy in the present study was observed to be 5.7% (gastric malignancies). Clinically significant endoscopic findings were observed in 52.14% of patients with uninvestigated dyspepsia. Most patients presented with a complex of three or more dyspeptic symptoms and the symptom profile was not predictive of the endoscopic findings. The prevalence of a large number of inflammatory lesions as a result of increased acid production and low incidence of malignancy in the study group suggests that the uninvestigated patients with dyspepsia may be initially managed medically with acid-suppressive therapy

Keywords: Esophago gastroduodenal carcinoma, Epigastric pain, Gastric malignancies

Introduction

Dyspepsia is affecting about 25% of the general population in developed nations and it is a major cause of medical visits. New patients comprise about 10% of the population every year. Dyspepsia majorly affects the quality of life and it is a major burden given social costs. Directly the expenses are for laboratory tests, medical consultation, and drugs and indirectly by absence from work. ^[1]Dyspepsia refers

to a spectrum of diseases and a heterogeneous group of symptoms confined to the upper abdomen. Dyspepsia is a vague term used to explain the upper abdominal collection of symptoms like indigestion, fullness, early satiety (not able to complete the meals), bloating, belching, nausea, epigastric discomfort or pain, and anorexia. Indigestion is very common in the general population; almost all have had indigestion at some time in their lifetime. ^[2]

Sometimes patients will include constipation and undigested food particles in the stool. Rome II working team defined dyspepsia as discomfort or pain in the upper abdomen. Central abdominal pain is considered to be a vital symptom. Pain that is present in other regions or associated with defecation is not considered. Nonulcer dyspepsia, this description comprises a group of symptom complex simulating peptic ulcers in patients who have no provable or objective evidence of an ulcer. Based on analysis of problems individuals with non-ulcer dyspepsia are categorized into two types. Pseudo ulcer syndrome—with classic symptoms of ulcer disease^[3] Functional dyspepsia—with postprandial fullness, belching, and bloating, occasionally associated with pyloroduodenal irritability and prolonged gastric emptying. Usually, this functional component is attributed to uncoordinated motor activity and afferent hyperreactivity. Gastro-oesophageal reflux disease is a condition, defined as abnormal entering of gastric juice into the esophagus and causes symptoms due to tissue damage.^[4] The principal pathophysiological problem is the presence of an unusual amount of gastric juice in the lumen of the esophagus. Symptoms thought to suggest gastro-oesophageal diseases, such as heartburn or regurgitation are very much prevalent in the general population and many individuals do not seek medical advice.^[5] The presence of symptoms doesn't correlate well with the tissue damage. For instance, a significant problem like Barrett's esophagus, even in early adenocarcinoma, can occur without symptoms. Gastro-oesophageal reflux disease is most commonly treated by physicians, this is substantiated by the amount of revenue recorded by many pharmaceutical companies. The symptoms are due to the failure of protective antireflux mechanisms. A clear understanding of the normal anatomy and physiology of the esophagus is mandatory to decide surgical and medical management.^[6]

Methodology

The study was conducted Department of surgery, at the Government medical college, Nagapattinam during the period of 3 months from June 2021 to August 2021 were admitted to know the various upper gastrointestinal endoscopic findings in patients presenting with dyspepsia. The patient selection was by convenience sampling. Dyspeptic patients were included in this study with their informed consent. A

detailed clinical history was elucidated, followed by careful clinical examination, which was recorded as per the proforma. All the patients included in the study underwent upper gastrointestinal endoscopy and the findings were noted. Dyspeptic patients were included in this study with their informed consent. A detailed clinical history was elucidated, followed by careful clinical examination, which was recorded as per the proforma. All the patients included in the study underwent upper gastrointestinal endoscopy and the findings were noted. The inclusion and exclusion criteria were as follows: Inclusion criteria: 1. Patients above 13 years of age. 2. Patients showing symptoms of dyspepsia for 4 or more than 4 weeks. 3. Patients with uncomplicated and uninvestigated dyspepsia. Exclusion criteria: 1. Patients below 10 years of age. 2. Pregnant and lactating women. 3. Patients on proton-pump inhibitors. 4. Patients who are known cases of chronic pancreatitis and liver disease. 5. Patients on NSAIDs for more than one month duration. 6. Unwilling or unfit patients for endoscopy. PROCEDURE: All the patients in this study group, on an inpatient basis, underwent upper gastro-intestinal endoscopy under topical anesthesia. The patients were asked to fast for 12 hours before the procedure. Only a few patients were given 5-10mg diazepam intravenously for sedation. Lignocaine viscous or oral lignocaine sprays were given to the patient 5-10 minutes before the procedure for the local anesthetic effect. The upper gastrointestinal endoscopy was conducted with Pentax, flexible, fiberoptic endoscope with patients in left lateral positions. The instrument is advanced under direct vision, with the tip of the endoscope in the central lumen. Using the optimal insufflations to keep the lumen of the esophagus well distended. The esophagus was looked for any inflammatory changes, growth. The gastro-esophageal mucosal junction was identified at 38-40cms from the incisors. (This junction is usually serrated and readily identified by the color difference between the esophageal and gastric mucosa, called as Z line). The position of the esophageal hiatus in the diaphragm is identified by asking the patient to inhale deeply, the diaphragmatic hiatus during inspiration creates an imprint on the esophageal and gastric wall. The position of both the hiatus and the mucosal junction are recorded to document the possibility of a hernia or a columnar-

lined esophagus. The gastro-esophageal junction should be observed for closed or widely patulous. On entering the stomach, endoscope slightly down and towards the left, a view of greater curvature and the posterior wall is obtained. Aspiration of all retained liquid is done to reduce the risk of aspiration and to allow proper examination of the stomach. A rotation movement of the tip of the instrument allows examination of the anterior and posterior walls of the body of the stomach. The lesser curvature down to the angulus and the greater curvature is viewed by the same position motion. The most proximal part of both the curvatures is better examined when using the J maneuver. The stomach was looked for

inflammatory changes, ulcers, growth. By rotating and angulating the tip endoscope is advanced to assess the antrum. Prepyloric and pyloric ring observed directly, the passage through the pylorus being done under direct vision. When the pylorus yields, a complete assessment of the duodenum is done up to the second part. Endoscopic biopsies were taken from the abnormal-looking area, growth, and the edge of the ulcer crater depending on the findings. Biopsy specimens were sent in formalin solution for histopathology. Each of the biopsy specimens was fixed in 10% buffered formalin, routinely processed to paraffin and 3 µm sections cut.

Results

Table :1 Age And Sex Prevalence In Patients Presenting With Dyspepsia

AGE/SEX	MALE	FEMALE	TOTAL
10-19	1	6	7
20-29	11	5	16
30-39	22	13	35
40-49	18	12	30
50-59	14	10	24
>60	15	13	28
TOTAL	81	59	140

Table :2 Endoscopic Finding In Patients With Dyspepsia

FINDINGS	MALE	FEMALE	TOTAL
NORMAL STUDY	33	34	67
OESOPHAGITIS	5	2	7
GASTRITIS	19	14	33
DUODENITIS	8	1	9
GASTRIC ULCER	9	0	9
DUODENAL ULCER	3	3	6
GROWTH/MALIGNANCY	3	5	8
HIATUS HERNIA	1	0	1
TOTAL	81	59	140

Table :3 Site Of Lesion In Endoscopy Presenting With Dyspepsia

SITE	MALE	FEMALE	TOTAL
NORMAL STUDY	33	34	67
OESOPHAGUS	6	2	8
STOMACH	30	19	49
DUODENUM	12	4	16

Discussion

Dyspepsia is a common presenting complaint by 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.^[7] The prevalence of GERD and irritable bowel syndrome is higher in patients with dyspepsia compared with patients without dyspepsia. Dyspeptic patients younger than 50 years of age and without alarm features are commonly evaluated by 1 of 3 methods: 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 anemia, persistent vomiting, dysphagia, odynophagia, and family history of upper GI malignancy in a first-degree relative.^[8] 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.^[9] Upper GI endoscopy is the gold standard first-line investigation in the workup of a patient with dyspeptic symptoms and is also useful for differentiating organic dyspepsia from functional dyspepsia. In our study, most of the dyspeptic patients (93.7%) had organic causes which were diagnosed with an endoscopy which is consistent with the findings of the previous studies. Endoscopy findings were normal in 13(6.3%) patients which are in contrast to 20-50% in another study.^[10] Dyspepsia

without evidence of organic disease is termed non-ulcer or functional dyspepsia. Peptic ulcer, esophagitis, and erosive gastroduodenitis were associated with increasing age which is similar to a study done by Tabiri S et.al UGI malignancy were not found in dyspeptic patients younger than 30 years old. UGI malignancy was an uncommon finding and its incidence increases as age advances. Previous studies showed that the incidence and risk of gastric malignancy were high after 50 years of age with its highest peak in the seventh decade.^[11] The prevalence of significant lesions in young patients is low and is consistent with previous studies. The number of patients with other lesions such as oesophageal candidiasis, gastric polyp, the oesophageal stricture is too small to compare with prior published data. Some patients with dyspepsia had post cricoid web, gastric polyp, hookworm infestation, and oesophageal varices as incidental findings, which may not be attributed to their symptomatology. *H. pylori* colonization of the gut is one of the most common infections globally.^[12] Some researchers described it as the most common chronic human bacterial infection. It is the main cause of chronic gastritis and the principal etiological agent of gastric cancer and peptic ulcer disease. In many countries, the incidence of *H. pylori* has been decreasing in association with improved standard of living and improved potent antibiotics. The prevalence of *H. pylori* in this study was 44.9%.^[13] This study did not exclude patients who were already on antibiotics and PPI or have taken these drugs before the study. It may also be associated with improved sanitation among the inhabitants. Despite the decrease in the prevalence of *H. pylori* among patients in this study, the current prevalence of 45.2% is still high compared to rates in developed countries. The

prevalence of *H. Pylori* infection is associated with lower socioeconomic status, sanitation, basic hygiene, poor diet; overcrowding, ethnicity, gender and age, low levels of education and geographic location also play a major role in the distribution of the infection. This may explain the higher prevalence of *H. Pylori* in developing countries.^[14,15]

Conclusion

From the present study of “A clinical study of various findings in upper gastrointestinal endoscopy in patients presenting with dyspepsia”. On endoscopic examination, gastritis accounted for the majority of the cases. The incidence of malignancy in the present study was observed to be 5.7% (gastric malignancies). Clinically significant endoscopic findings were observed in 52.14% of patients with uninvestigated dyspepsia. Most patients presented with a complex of three or more dyspeptic symptoms and the symptom profile was not predictive of the endoscopic findings. Prevalence of a large number of inflammatory lesions as a result of increased acid production and low incidence of malignancy in the study group suggests that the uninvestigated patients with dyspepsia may be initially managed medically with acid-suppressive therapy.

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