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## Various findings in upper gastrointestinal endoscopy in patients presenting with dyspepsia: A clinical study

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#### Abstract

**Background:** Incidence of Dysphagia become more prevalent because of the faulty food habits among the people in recent days.

**Aim:** To study incidence of various oesophageal and gastric diseases with respect to age, sex, occupation, socioeconomic status and other factors in our hospital. To find the upper gastrointestinal morphological features among patients presenting with dyspepsia using endoscopy. To find the prevalence of H-pylori infection in patients presenting with dyspepsia and screening for oesophago-gastric carcinoma among patients presenting with dyspepsia.

**Materials and methods:** It is a prospective study conducted on patients who presented with dyspepsia in department of general surgery, sree mookabika institute of medical sciences during the period of September 2020 – January 2021. All the patients were evaluated on basis of chief complaints, clinical examination and investigation and They underwent endoscopy and findings were documented, invasive tests like biopsy, rapid urease test and geimsa staining were done findings were tabulated and analysed. Appropriate statistical methods were applied to provide the below mentioned results.

**Results:** Highest prevalence of dyspepsia belong to the age group of 20-40years. Most common presenting complaint was heart burn followed by nausea/vomiting /epigastric discomfort. Dyspepsia were noted more common in male gender comparing to female gender. Most common endoscopic finding among the study population were gastritis followed by esophagitis along with gastritis. H-pylori infection was present in 42.5% of study population. Malignancy was diagnosed in 2.5% patients with dyspepsia. Clinically significant endoscopic findings were observed in 80.8% of patients with non-investigated dyspepsia.

**Conclusion:** Clinically significant endoscopic findings were observed in 80.8% of patients with non-investigated dyspepsia. Prevalence of large number of inflammatory lesions as a result of increased acid production, a remarkable prevalence of H-Pylori infection and low incidence of malignancy in the study group suggests that the non-investigated patients with dyspepsia may be initially managed medically with acid suppressive therapy or H-pylori eradication in cases suspected to be infected. Endoscopy may be undertaken in patients with recurrent symptoms or in whom drug therapy fails.

**Keywords:** Upper GI endoscopy, dyspepsia, gastritis

#### Introduction

Dyspepsia is a common presenting symptom in surgical practice. The prevalence of dyspepsia is high. Dyspepsia is combination of symptoms, often related to food and that includes nausea, bloating sensation, epigastric burning sensation, or discomfort, indigestion, heartburn. The Rome III criteria defined dyspepsia as 1 or more of the symptoms such as - Postprandial fullness, early satiety, Epigastric pain or discomfort lasting for at least four weeks, burning sensation. The evaluation and management of dyspepsia constitutes a significant clinical and economic burden. Dyspepsia subtypes were classified as reflux-like, ulcer-like and dysmotility-like. It also be associated with serious gastrointestinal disease such as underlying malignancy or significant pathology like stricture or ulcer. Alarming features for patient with dyspepsia includes age > 50 years, with new onset of symptoms, family H/O malignancy, unintended weight loss, GI bleeding or iron deficiency anaemia, progressive dysphagia, persistent vomiting, palpable mass in epigastrium and jaundice. Upper G.I. endoscopy is gold standard for diagnosis of structural disease in a patient with dyspepsia. Initial endoscopy showed significant improvement in symptoms score, quality of life, and reduction in use of PPI's. Endoscopy helps in early detection of carcinoma in case of dyspepsia. This study is intended to study the profile of upper GI endoscopy findings in dyspeptic patients and association of other alarm symptoms

which helps in better early treatment, thereby reducing the morbidity and mortality rate.

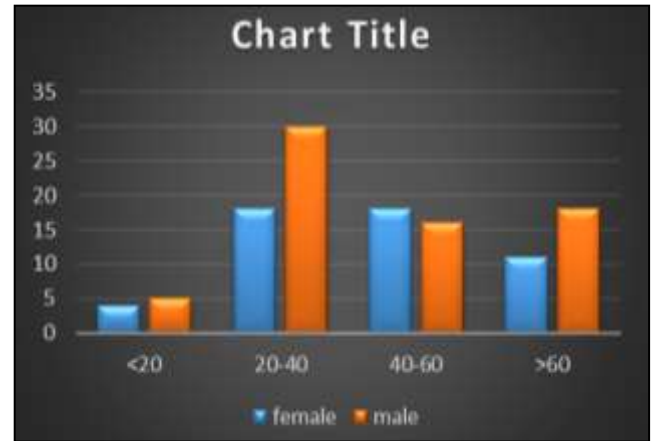
**Materials and methods**

In this study, 120 patients were selected who attended our surgery OPD with the complaints of dyspepsia were included in this study during the period of September 2020 – January 2021. All the dyspeptic patients were included in this study after obtaining their informed consent. A detailed clinical history was elucidated, followed by careful clinical examination, which were recorded as per the proforma. All the patients included in the study underwent upper gastrointestinal endoscopy and the findings were noted. All patients above 20yrs with symptoms of dyspepsia undergoing upper gastrointestinal endoscopy will be included in the study. Paediatric age group, Patients who have been previously operated for any gastrointestinal problems were excluded in his study

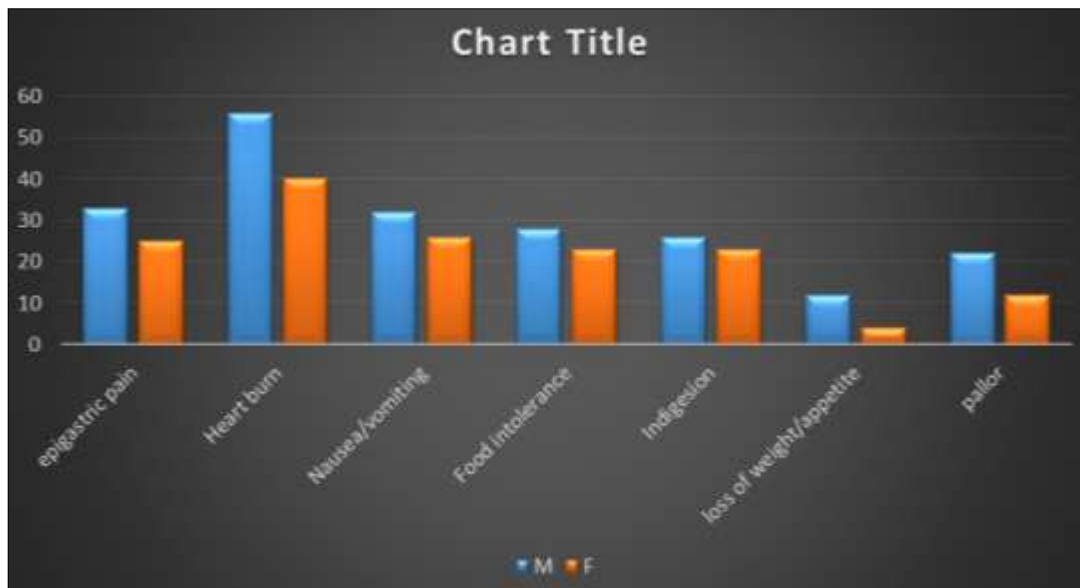
**Results**

Of the total 120 cases, 55 patients belonged to female gender and 75 cases belonged to male gender. In these studies,

maximum number of patients belonged to the age group of 20 to 40 years, 29 cases belonged above 60 years, and 9 cases belonged to the age group less than 20 years.



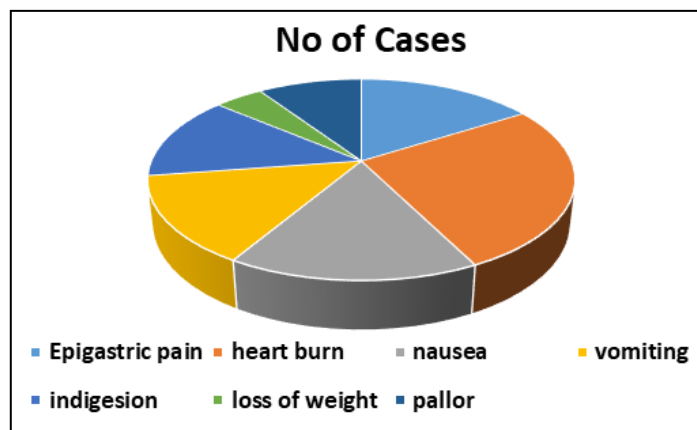
**Fig 1:** Chart Title



**Fig 2:** Frequency of various symptoms of Dyspepsia in Males and Females

Out of 120 patients, the most common component of dyspepsia was heart burn, seen in 96 (80%) patients, followed by nausea and/or vomiting and epigastric pain /discomfort in 58 (48.3%) patients each, food intolerance in 51 (42.5%) patients, indigestion in 49 (40.8%) patients, pallor in 34(28.3%) patients

and loss of appetite and/or weight in 16 (13.3%) patients In this study, most of the patient with h. pylori infection presented with symptoms of heart burn. And least presented with loss of weight Prevalence of H-pylori infection was highest in the age group of 20-40 years and least in the age group of <20years.



**Fig 3:** Prevalence of H-Pylori in various clinical presentations in patients with dyspepsia

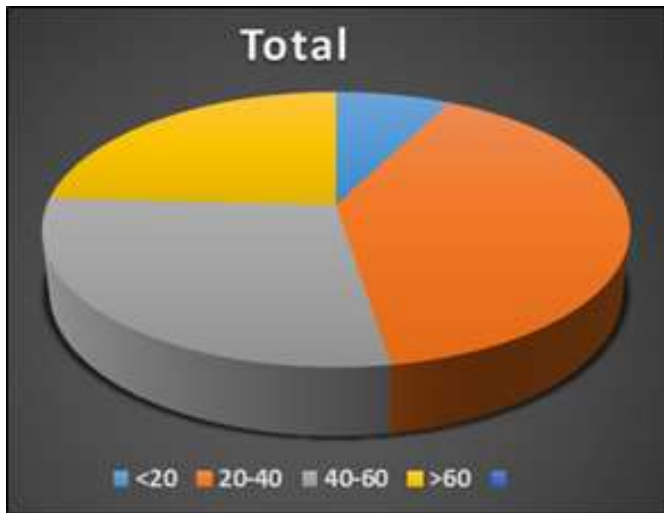


Fig 4: Prevalence of H-Pylori in Various Age Groups

### Frequency by various diseases on Endoscopy in a patients presenting with Dyspepsia

Normal study was observed in 23 patients. Most common abnormal endoscopic finding was oesophagitis with gastritis 19 patients, followed by gastritis alone 16 patients, duodenitis with gastritis 4 patients, GERD in 3patients upper GI malignancies in 3patients. Other rare causes such as Mallory Weiss, Hiatus hernia, D1 polyp, Plummer vinson syndrome were found to be less than one percent.

### Discussion

An endoscopic profile reveals gastritis and oesophagitis in majority of the cases. The prevalence of H-pylori in the study group was found to be in 42.5% as estimated by rapid urease test. Incidence of malignancy in the study group were observed in 2.5% (including both gastric and esophageal malignancies). Clinically significant endoscopic findings were observed in 80.8% of patients with 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 large number of inflammatory lesions as a result of increased acid production, a remarkable prevalence of H-Pylori infection and low incidence of malignancy in the study group suggests that the patients with dyspepsia may be initially managed medically with acid suppressive therapy or H.pylori eradication in cases suspected to be infected. Endoscopy may be undertaken in patients with recurrent symptoms or in whom drug therapy fails. In this study out of 120 patients, the majority of patient presenting with dyspepsia were in the age group of 20-40 years (57.6%). Similar study was conducted by Choomsri P *et al.*<sup>2</sup> B R *et al.*, in which the mean age group is 41 In this study, Out of 120 patients, 112 (78.9%) patients had epigastric pain and discomfort as their chief complaint whereas nausea and vomiting was present in 102 (72.8%) patients. The other complaints were heart burn 85 (59.9%), food intolerance 70(49.3%), indigestion 65(45.8%) and loss of appetite and weight 47(33%). Similar study was conducted by Thomson A B R <sup>5]</sup> *et al.*, in which the common presenting complaints were upper abdominal pain (34.3%), heart burn (24.5%) and acid regurgitation (13.3%),<sup>19]</sup> the observations were comparable In the present study, clinically significant of endoscopic findings were observed in 97 patients accounting for 80.83%. Oesophagitis with Gastritis was by far the most common finding (15.83%), while gastritis alone was found in 13.3%. The next common findings were oesophagitis alone 4.1%. n The

percentage of cases with gastritis in this study almost same as saewar *et al* (13%)<sup>11]</sup>.

The prevalence of H-pylori was highest in the age group of 20-40 years and least in <20 years. This study showed that the prevalence of H-pylori increased as the age increases, but in terms of male and female ratio, the prevalence of H-pylori was more common in female patients. Similar studies by Choomsri P *et al.*<sup>12]</sup> shows prevalence of 23%, which is compatible with present size

In this study there were 3 patients with upper gi malignancy accounting for 2.5%, among them all were male patients. Gastric malignancies were common in older age groups. The incidence of upper GI malignancy in his study Khan N *et al.*<sup>13]</sup> is 3% is almost similar with the present study

### Conclusion

The age group with symptoms of dyspepsia were more prevalent among second, third and fourth decades. Most common presenting complaint was heart burn followed by nausea, vomiting, epigastric discomfort. The incidence of dyspepsia was more common among the male gender compared to females. The commonest endoscopic finding was gastritis followed by oesophagitis with gastritis, due to H-pylori infection. Thus, early and prompt workup study and diagnosis of the disease and its management can reduce the complications of the disease to a great extent.

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