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Original Research Article

TO ANALYSE THE VARIOUS FINDINGS OF UPPER GI ENDOSCOPY AMONG THEPATIENTS WITH UPPER ABDOMINAL PAIN

[1]Dr. Nivedita, [2]Dr. Mohammed Faizul Viqhas K, [3]Dr. Mohammad Noor Alam, [4]Dr Prashant Harsur

[1]Assistant Professor, Gulbarga Institute of Medical Sciences, Kalaburagi
[2,3]Senior Resident, Gulbarga Institute of Medical Sciences, Kalaburagi
[4]Assistant Professor, Dept. of CVTS, Sri Jayadeva Cardiovascular Sciences and Research Institute, Kalaburagi

Corresponding Author: Dr Prashant Harsur

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Abstract

Dysphagia is a Greek word and means disordered eating. Dysphagia typically refers to difficulty in eating as a result of disruption in the swallowing process. It is an important alarm symptom, especially when associated with other upper gastrointestinal (GI) symptoms like dyspepsia, chronic gastrointestinal bleeding, progressive unintentional weight loss, persistent vomiting, iron deficiency anaemia or epigastric mass. Upper gastrointestinal endoscopy is now a routine procedure which has superseded the barium meal as the primary diagnostictool and the evidence is clear that endoscopy is superior to barium X-ray & ultrasound to study the organs of the upper abdomen as they do not allow for a direct viewing of the esophagus, stomach & duodenum. Duodenoscopy allows directcannulation of the papilla of vater for cholangiography &pancreatography (ERCP). The whole colon can be examined & methods are available for small intestinal endoscopy. Tissue specimens can be removed from all of these areas under direct vision using biopsy forceps, cytology brushes & snare loops. Several therapeutic endoscopic techniques have been developed that allow endoscopists to treat bleeding lesions and , in some centres , relieve esophageal obstruction causedby cancer by means of laser phototherapy and dilatation of esophageal strictures .

endoscopic placement of gastric feeding tube i,e percutaneous endoscopicgastrostomy (PEG) has largely replaced surgical gastrostomy.

Methodology: A cross-sectional study was undertaken at Surgery department of Vinayaka Missions Medical College Hospital, Salem on 100 patients with complaints of chronic abdominal or epigastric pain and willing to undergo upper GI endoscopy. The patient was kept nothing by mouth for 4-6 hours. Pharyngeal anaesthesia to blunt the gag reflex was done by using using 5% lidocainespray. Intravenous sedation was given in selected cases using Inj midazolam. The patient's vitals weremonitored closely during the procedure. . During the endoscopy, the patient was monitored according to analgesia and sedation guidelines formulated by American society of Anaesthesiology.5

Results: 65% of the patients with various upper GI symptoms had been diagnosed with various gastro-intestinal diseases through upper GI endoscopy. The major finding (24%) in the upper GI endoscopy was reflux oesophagitis followed by oesophageal stricture which was detected in 12% and 8% of them had the findingof antro-pyloric gastritis. 8% of the patients were reported with oesophageal or gastric cancer. Most of the patients in the younger age group

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strictures and oesophagitis were more common in the middle age antropyloric gastritis and carcinoma of stomach or oesophagus is more common in the old age.

Conclusion: Upper GI endoscopy is an effective procedure with epigastric pain evaluation is the commonest indication in our study. The diagnostic yield of the endoscopy is undoubtedly very high if the patient selection is done in a meticulousway. The normal endoscopy rate is unduly high and needs to be reduced by rigorous screening of the patients.

Keywords: GI, Endoscopy, Epigastric

Introduction

Dysphagia is a Greek word and means disordered eating. Dysphagia typically refers to difficulty in eating as a result of disruption in the swallowing process. It is an important alarm symptom, especially when associated withother upper gastrointestinal (GI) symptoms like dyspepsia, chronic gastrointestinal bleeding, progressive unintentional weight loss, persistent vomiting, iron deficiency anaemia or epigastric mass.

Dysphagia may be caused by a variety of upper GI conditions, ranging from benign to malignant.[1]These conditions include neuromuscular or structural disorders causing dysmotility either in the oropharynx or oesophagus (oesophageal body, lower oesophageal sphincter or cardia). Although the true prevalence of dysphagia is not known, it is reported to be 16% to 22 % after the age of 50 years.[2]Often it leads to the finding of an anatomical or motility disorder of the oesophagus. As part of the alarm symptoms, dysphagia needs to be investigated on an urgent basis to establish a diagnosis early in the course of the patient's management and to rule out any ongoing serious pathology such as a neoplastic process. A detailed medical history and clinical examination is the key to rule out the more obvious causes of dysphagia, especially if these are related to the oropharynx. There are several diagnostic investigations available to evaluate dysphagia, including upper gastrointestinal radiography and endoscopy. Most patients with dysphagiareferred to the surgical clinics have oesophageal causes, and therefore, an endoscopic examination of the upper GI tract (oespphago-gastro-duodenoscopy;OGD) as first line examination will be required in these cases.[3] Endoscopy (endo- prefix referring to something internal, and scopy, to see; both words are of Greek origin) originally means to look inside something. Today endoscopy mainly represents the use of flexible or rigid instruments to look inside body cavities. “Interventional endoscopy” implies that the endoscopy includes some kind of surgical treatment.

The instrument used for interventions in this thesis is flexible but of different designs. The development of new instruments and the gathering of new endoscopic skills allow more advanced endoscopic surgical procedures. An increasing palette of complications is therefore to be expected but, compared to the alternative surgical procedures, the number and severity of complications is probably less and, as an extra enticement, the endoscopic procedures leave no visible scars, except when specific complications occur.

Identification of the different complications, of how often they occur, of risk factors for developing complications and, most importantly, of ways of avoiding them or making them less severe is of utmost clinical importance. My interest in endoscopic procedures and clinical knowledge of diagnostic and therapeutic endoscopy has given me insight into the consequences of complications. These complications could decrease patients' quality of life, lengthen their hospital stay, add costsand sometimes cause early mortality. This knowledge has stimulated my interest in finding measures to reduce complications and suffering caused by interventional endoscopy in the upper gastrointestinal tract, and in trying to make the procedures more efficient. There are many interventional procedures with different sets of complications, but I have focused in this thesis on a few common endoscopic interventions: 1/ Insertion of self-expanding metal stents (SEMS) for palliation of inoperable malignant oesophageal cancer, 2/ Endoscopic retrograde cholangiopancreatography (ERCP) used to

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investigate and treat problems in the bile duct or the pancreatic duct, and 3/ Insertion of percutaneous endoscopic gastrostomy (PEG) catheter, performed mainly for nutritional reasons.[4]

Methodology:

Study area: Surgery department of Vinayaka Missions Medical CollegeHospital, Salem.

Study deisgn: Cross-sectional.

Study sample: 100 patients

Study population: Patients with complaints of chronic abdominal or epigastricpain and willing to undergo upper GI endoscopy.

Inclusion criteria:

- Patients with pain abdomen
- Dysphagia or odynophagia
- Oesophageal reflux symptoms
- Persistent vomiting for unknown cause

Exclusion criteria:

- Patient with metastatic adenocarcinoma of unknown primary site
- Uncomplicated duodenal ulcer that has responded to therapy

Deformed duodenal bulb when symptoms are absent or respondedadequately to ulcer therapy.

Results:

Table 1: Age wise distribution of the study population

Age group	Frequency	Percentage	Mean	SD
<20	2	2%	51.64	16.01
20 – 40	22	22%		
41 – 60	40	40%		
61 – 80	34	34%		
>80	2	2%		
Total	100	100%		

Table 1 shows the age wise distribution of the study population. It is seen from the table that majority of the study subjects were in the age group between 40 – 80 years and the mean age was 51.64 years.

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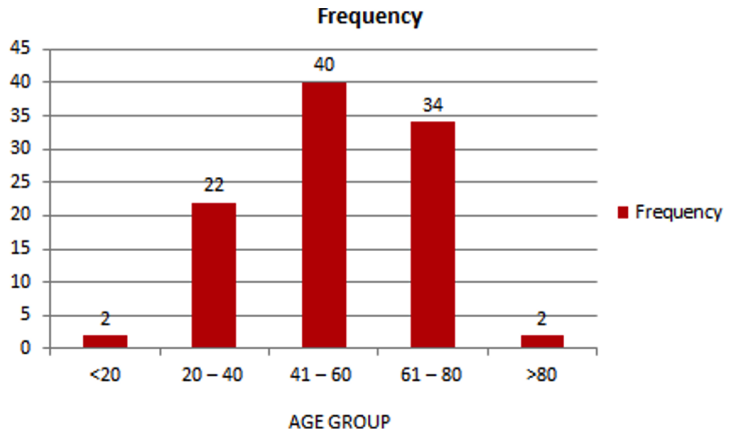

Fig 1: Age wise distribution of the study population

Table 2: Gender wise distribution of the study population

Gender	Frequency	Percentage
Male	52	52%
Female	48	48%
Total	100	100%

Table 2 shows the gender wise distribution of the study population. It is seen from the table that the male: female ratio among the study subjects is 1.08: 1. The males and females were almost in equal numbers.

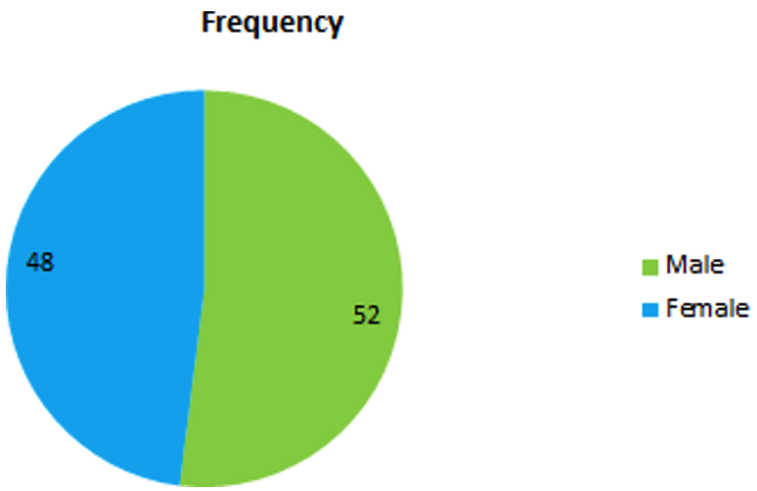

Fig 2: Gender wise distribution of the study population

Table 3: Distribution of the study population based on the history ofabdominal pain as chief complain

H/O abdominalpain	Frequency	Percentage
Present	74	74%
Absent	26	26%
Total	100	100%

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Table 3 shows the distribution of the study population based on the history of abdominal pain as the chief complaint. It is seen from the table that 74% of the patients had abdomen pain as the chief complaint.

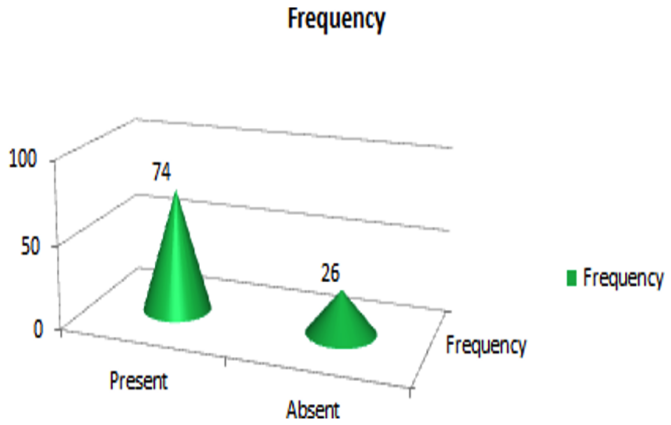

Fig 3: Distribution of the study population based on the history ofabdominal pain as chief complaint

Table 4: Distribution of the study population based on the history ofdysphagia as the chief complaint

H/O dysphagia	Frequency	Percentage
Present	45	45%
Absent	55	55%
Total	100	100%

Table 4 shows the distribution of the study population based on the history of dysphagia as the chief complaint. It is seen from the table that 45% of the patients had dysphagia as the chief complaint.

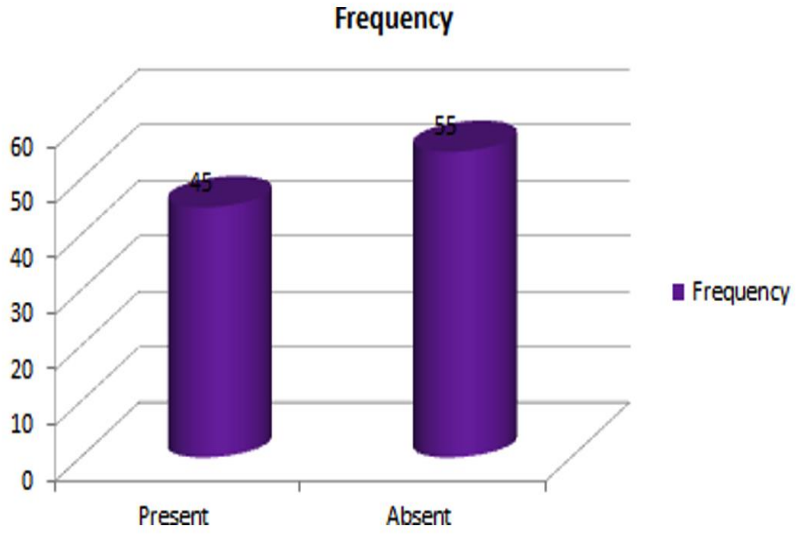

Fig 4: Distribution of the study population based on the history ofdysphagia as the chief complaint

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Table 5: Distribution of the study population based on the history ofhematemesis as the chief complaint

H/O hematemesis	Frequency	Percentage
Present	7	7%
Absent	93	93%
Total	100	100%

Table 5 shows the distribution of the study population based on the history of hematemesis as the chief complaint. It is seen from the table that only 7% of thepatients had hematemesis as the chief complaint. None of the patients had any other chief complaints like fever, loss of weight and loss of appetite.

Discussions:

Dyspeptic symptoms, which have a high prevalence and incidence in the population, are the most frequent reason for requesting for an upper endoscopy. It is not uncommon for any young patient with simple dyspepsia to get investigated. The uncertainty regarding which patients with dyspepsia should undergo upper endoscopy is not clear. 75% of patients had epigastricpain in thepresent study. Overall, dyspepsia is common in the general population and it is not clear whether the incidence of malignancy in patients with uncomplicated dyspepsia is different from those without dyspepsia.[5] Also, the guidelines for appropriate use of upper endoscopy may result in a more rational selection of patients worldwide. Clinical history and examination show a diagnostic accuracy of only 45%–50%. The accuracy increasesto 70%–80% on using a predefined questionnaire. The latter is time consuming and is not practical in day-to-day practice. Performing an endoscopy for all patients is also not practical, especially with the increased workload in the endoscopy suite. Clinical diagnosis is unreliable in diagnosing the underlying cause of dyspepsia.[6]The role of an empirical therapy has been highlighted by earlier workers.[7] Several studies have examined the discriminant value of various alarm symptoms for identifying the high risk patients for early referral.[8,9]Unlike the West, there are no set guidelines in India for clinicians to predict an appropriate outcome.The set guidelines are essential inorder to enhance the quality of healthcare, reduce the cost and avoid unnecessary workload, and these need to be tailored. A number of alarm features have been suggested as indicators of high risk for a serious disease.[10,11] These features include recent onset of dyspepsia in an older subject, occurrence at any age of the so-called alarm symptoms, viz. dysphagia, vomiting and/or weight loss. Age is an important criterion while screening patients with dyspepsia for cancer. Among the Western population, the incidence of oesophageal and gastric cancers is very low for patients below the age of 45 years, and the Western recommendations do not justify the use of endoscopy in these patients to detect early cancer.[12]As per the American Society for Gastrointestinal Endoscopy report, only 1% of all dyspeptic patients will have an oesophageal or gastric cancer, and only six per 10,000 patients will have “early” gastric cancer at endoscopy.[13] These criteria may not hold true in regions with a high prevalence of gastric andoesophageal cancers. In the present study, 5.6% of individuals with dyspepsia had a malignant lesion, more often a carcinoma of the stomach. There was a male preponderance. Also, more than 18.3% of patients with carcinoma would have been missed if then cut-off age of 45 years for endoscopy was followed as per the Western guidelines. Recommendations are empirical treatment for 4–6 weeks with antacids and H2 receptor antagonist for patients with dyspepsia and those below the age of 45 years. For our population, an empirical treatment can be recommended forthose dyspepticsm below the age of 35 years, provided they have no alarm symptoms, and an endoscopy can be performed after 4–6 weeks of registration. Studies have shown that serious complications seldom occur during

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the observation period.[14]There is no evidence that a 4–6 week delay in diagnosis would adversely affect the natural course or the surgical cure rate of oesophageal or gastric cancer. In a developing country like India, this period would be warranted, considering the economic considerations of needless endoscopies. Most studies recorded normal upper endoscopy in dyspepsia varying from 30% to 40%.[15] In the present study, we found that 1,300 (43.5%) patients among the 2,985 patients with dyspepsia had a normal endoscopy. The uncertainty about the most appropriate use of upper endoscopy in the context of cost may result in under utilisation of the procedure. Froehlich et al conducted the only known study to look into the under utilisation of upper endoscopy and their rate was 11.8%.

Conclusions:

It is concluded that in our study patients 65% of the patients with various upper GI symptoms had been diagnosed with various gastro-intestinal diseases through upper GI endoscopy. Upper GI endoscopy is an effective procedure with epigastric pain evaluation is the commonest indication in our study. The diagnostic yield of the endoscopy is undoubtedly very high if the patient selection is done in a meticulous way. The normal endoscopy rate is unduly high and needs to be reduced by rigorous screening of the patients. For the future, the current guidelines laid down in this study needs extrapolation and prospective validation in different regions within and outside the country, with its economic and social implications in terms of number of lives saved and the cost factor by decreasing the cut-off age of endoscopy to 35 years.

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