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To Study the Pattern and Frequency of Common Upper Gastrointestinal Diseases on Upper GI Endoscopy In Tertiary Care Hospital

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Abstract

Upper Gastrointestinal symptoms are the commonest complaints which seek medical attention. Diseases associated with these are leading cause of morbidity and mortality world-wide. Upper Gastrointestinal tract abnormalities are often lined to infection or inflammation. Endoscopy is the first line investigation for patients presenting with Upper gastrointestinal symptoms. The objectives of the present study are to study the pattern and frequency of common upper Gastrointestinal diseases in the draining community. A retrospective study was conducted among 750 subjects who underwent upper GI endoscopy in department of General Surgery from August 1 2016-July 31 2023. Out of 750 subjects 550 were males, 200 were females. Majority of patients were found to have gastritis, esophagitis. Others had peptic ulcer disease, malignant changes, reflux disease, hiatus hernia. Upper GI endoscopy is a valuable tool with both diagnostic and therapeutic purposes. Our study has identified the pattern and frequency of various upper GI diseases diagnosed with upper GI Endoscopy in our draining area.

INTRODUCTION

India is a developing country with diverse population. There has been increase in migration of rural population to urban along with inevitable change in lifestyle, food habits, working pattern. This has led to increase in Gastrointestinal tract related abnormalities. Upper Gastrointestinal symptoms are the commonest complaints which seek medical attention. Diseases associated with these are leading cause of morbidity and mortality world-wide^[1,2]. Upper Gastrointestinal tract abnormalities are often lined to infection or inflammation.

Endoscopy is the first line investigation for patients presenting with Upper gastrointestinal symptoms. Endoscopy is an essential tool with both diagnostic and therapeutic roles. It is a procedure that uses small, flexible camera with a light source to examine the upper GI tract. A standard diagnostic upper Gastrointestinal Endoscopy includes the examination of the pharynx, hypopharynx, laryngeal inlet, oesophagus, stomach and part of duodenum. The advantage of direct visual inspection of the oesophageal, gastric, duodenal mucosa is obvious. Biopsy specimens can be taken for histological or microbiological examinations.

The most common conditions include gastritis, focal benign or malignant lesions, oesophageal varices, Gastro-oesophageal reflux disease, hiatus hernia.

Our study is to assess the pattern and frequency of common upper GI conditions diagnosed with upper Gastrointestinal endoscopy in our regional area and comparing it with similar studies in other parts of India. This Study helps will contribute to identify etiological factors, hence guide us to adopt preventive measures. This study has highlighted the role of minimally invasive technique for surgical diagnosis of various upper GI conditions and thus act a guide to compare between open and minimally invasive surgical technique.

Aim and Objective: The objectives of the present study are to study the pattern and frequency of common upper Gastrointestinal diseases in the draining community along with sex distribution reported to General Surgery department of Raichur Institute of Medical Sciences.

MATERIALS AND METHODS

A retrospective study was conducted among 750 subjects who underwent upper GI endoscopy in department of General Surgery from August 1 2016-July 31 2023. Data was collected retrospectively from endoscopy register available in department. Study was approved by institutional ethics committee. Data including sex distribution and endoscopic findings and diagnosis were documented. Histopathology reports

were used to confirm diagnosis in cases of malignancies. Patients were grouped based on sex and comparison of diagnosis was done for gender.

Data was entered in the excel spread sheet. Data was analysed using SPSS software (Statistical Package For Social Sciences). Frequency and percentage of each variable were calculated and same was depicted as graphs, tables and pie chats. The level of significance was set at 5%.

Inclusion Criteria:

- All patients in whom upper GI endoscopy was performed

Exclusion Criteria:

- Patients <15 years of age
- Patients in whom endoscopy was inconclusive

RESULTS AND DISCUSSIONS

Our study was based on endoscopic data available in our General Surgery department of 750 subjects over a period of 7 years. Mean age of study population was 40 year. Minimum age was 15 years and maximum age was 82 years. 75 percent were males and 25 percent were females.

Pattern and frequency of various upper Gastrointestinal diseases among study participants is represented in (Table 1). Out of 750 patients had



Fig. 1: Patients grouped based on sex and comparison of diagnosis was done for gender

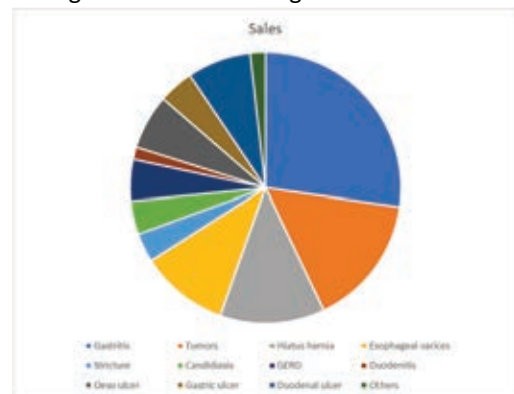


Fig. 2: Pattern and frequency of various upper gastrointestinal diseases among study participants

Table 1: Pattern and frequency of various upper gastrointestinal diseases among study participants

Sl No	Diseases	Number of cases	Percentage	Number of Males	Number of females
1	Normal	200	28	150	50
2	Gastritis	150	20	112	38
3	Tumors	86	11.4	64	22
4	Hiatus hernia	69	9.2	51	18
5	Esophageal varices	58	7.73	43	15
6	Esophageal stricture	19	2.53	14	5
7	Candidiasis	22	2.9	16	6
8	GERD	27	3.6	20	7
9	Duodenitis	8	1.06	6	2
10	Esophageal ulcer	26	3.8	19	7
11	Gastric ulcer	23	3.06	17	6
12	Duodenal ulcer	42	5.6	31	11
13	Others	10	1.8	7	3

normal findings. Most common finding was Gastritis. Other conditions in decreasing order of frequency are tumours, GERD, Duodenitis. Among tumours most common was oesophageal followed by gastric.

Endoscopic evaluation has an advantage over other diagnostic methods because of its direct visualization of different areas of upper Gastrointestinal tract. It also has therapeutic application for some conditions like banding for varices, stricture dilatation etc.

In total of 750 patients, Our data revealed a greater percentage of males affected with UGI disorders than females in our regional population, indicated by male, female ratio of (3:2) of endoscopic evaluations done in 7 years. This is almost similar to reports mentioned in other parts of country.

Our primary interest was to identify the pattern and frequency of common upper GI conditions and its burden in our draining area. Out of 750 patients studies, most common finding was gastritis (150).

Gastritis is a very common and widely distributed condition worldwide. It's prevalence increases with age and higher in low socio-economic population, obese patients¹. It represents one of the most common pathological entities in gastroenterology and digestive endoscopy. Inflammation of gastric mucosa is known as Gastritis. The risk factors include mainly smoking, alcohol consumption stress. Patients should be started on medical line of treatment-proton pump inhibitors and H pylori kit.

11.4% Percent of patients had malignancy diagnosed on endoscopy. Among that esophageal cancer (80), Gastric^[6]. Esophageal cancer is the seventh most prevalent cancer. Squamous cell carcinoma is more common and associated with smoking and alcohol use. Tobacco and alcohol are the strong risk factors and others include achalasia, socioeconomic, GERD, Barrets. The stage at which oesophageal cancer is detected is most important in prognosis hence early diagnosis is crucial. Gastric cancer is 14 th most common cancer. 80% have associated H. Pylori infection. Other risk factors include diet, genetic, socioeconomic, polyps, Proton pump inhibitors^[3].

Hiatus hernia accounts for 9.2 percent of cases. It

refers to a condition in which elements of abdominal cavity, most commonly stomach herniate through the esophageal hiatus into the mediastinum. GERD is main clinical manifestation of hiatus hernia^[3,4]. Gastroesophageal reflux disease (GERD) is most common benign disorder of stomach and esophagus. After medical line of management these patients were sent for manometric studies.

Varices are dilated sub-mucosal veins, commonly occurring as a consequence of portal hypertension. Endoscopy plays a vital role in identification and management , as it identifies varices in initial stage and helps to prevent haemorrhage and to initiate specific therapies^[1,5].

Peptic Ulcer disease (gastric ulcer and duodenal ulcer) accounted for 63 cases 8 %. It is the erosions in gastric and duodenal mucosa that extends through muscularis mucosa. Common causes are infection with H. pylori and consumption of NSAIDs. If untreated it leads to potential complications like bleeding, perforation, gastric outlet obstruction warranting surgical emergency

In our study there was high incidence of gastritis. This could be due to increased alcohol consumption, change in life style causing increased stress. This is similar to most of previous studies conducted in various parts in India, thus confirming the finding in our region. It can be prevented by consumption of fresh fruits, vegetables, avoiding fatty food, controlling obesity, cessation of alcohol, tobacco and avoiding indiscriminate use of medicines^[1]. Increasing fiber content in diet, avoiding caffeine, adopting ways to cope up stress can help in management. The incidence of tumors mainly esophageal is showing increasing trend, again being multi factorial. The patients with family history of GI cancer should have an endoscopy done beginning at an age of 40 or 10 years younger than youngest. member affected Relatively lower incidence of Peptic ulcer disease might be due to use of proton pump inhibitors and other drugs for acid suppression at primary level.

CONCLUSION

Upper GI endoscopy is a valuable tool with both diagnostic and therapeutic purposes. Our study has

identified the pattern and frequency of various upper GI diseases diagnosed with upper GI Endoscopy in our draining area. Most common condition being gastritis. In today's era of hurry, worry and curry people have adopted irregular diet habits, sedentary lifestyle along with lack of adequate rest. On the other end of spectrum are the people with low socio-economic status with unhygienic practices and illiteracy. Our study by identifying the frequency and pattern of diseases in our regional area will act as an informative guide to direct health care system towards assessing the burden and severity of risk factors and also to know etiological factors in our community. This will help in framing appropriate preventive measures and institutional protocol. This study will contribute for planning a larger epidemiological study to design strategies for primary prevention by increasing awareness, early diagnosis of various conditions and screening for malignancies

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