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ROLE OF OESOPHAGO-GASTRO-DUODENOSCOPY IN DIAGNOSIS OF UPPER GASTRO-INTESTINAL SYMPTOMS

Medical Science

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ABSTRACT

Background: Endoscopy has emerged as a diagnostic and therapeutic tool which has grown tremendously in recent years. Upper gastrointestinal (GI) endoscopy is one of the most fascinating branches, serving not only as an aid to resolving or amplification of diagnosis made in clinical setting but also as a primary diagnostic procedure for these conditions and which can be now be managedwithout operative intervention in many cases. The aim of our study was to detect upper GI lesions in patients presenting to our hospital, and the distribution pattern of various GI lesions.
Materials and methods: Study group included patients reporting to outpatient department and also inpatients in wards at the Bhausaheb Sardesai Talegaon Rural Hospital.
Results: Of the 108 cases, 79 were males and 29 females. Disease incidence was highest in 31-50 years age group. Incidence of Antral gastritis was the most common (63.8%), followed by duodenitis with 4.6%, pangastritis with 3.7%, carcinoma was 3.5%. Normal study was found in 4.6% of patients undergoing endoscopy.
Conclusion: Upper GI lesions were more common in males as compared to females. The incidence of gastritis was more frequent in age group less than 50 years and predominantly among males. Gastritis was the most common Upper GI lesion found in EGD. The incidence of malignancy was mostly among the older age group above 50 years. Upper GI endoscopy not only helped to identify and diagnose disease, but also helped to get the information about the pathology, and complications that could have occurred. This shows the importance of the diagnostic as well as the therapeutic relevance of the procedure and helped to document various upper GI lesions across the population.

KEYWORDS

Oesophagogastroduodenoscopy (EGD), Endoscopy, Gastritis

INTRODUCTION:

Oesophagogastroduodenoscopy (EGD) is a procedure that visualizes the mucosal surface of oesophagus, stomach and proximal duodenum with both diagnostic and therapeutic uses. A Gastroscope is required for performing an EGD. India is a developing country with one of the most diverse populations and with varied diets. There is a rising incidence of upper Gastrointestinal (GI) tract abnormalities with increase in migration from rural areas of country to more urban, with the accompanying drastic change in lifestyle and food habits.

Upper GI lesions commonly includes the patient presenting with clinical symptoms of dysphagia, nausea and vomiting, dyspepsia, upper gastro-intestinal bleeding, and anemia. EGD is most commonly used for diagnosis and follow-up of gastro-esophageal reflux, peptic ulcers and portal hypertension without bleeding.

With EGD, diagnosis and localization of the disease has become easy, and simultaneously, interventions which can be performed during procedure include management of upper GI bleeding, laser ablation of oesophageal cancer, endoscopic placement of oesophageal stents, placement of permanent feeding tube and dilatation of permanent oesophageal strictures. Peptic ulcer is most common of the upper GI ailments in men and the prevalence increases with age, peaking at 4-5th decades of life.(1) The role of endoscopy in managing active bleeding peptic ulcer is very significant.

Studies have shown that endoscopic interventions have led to reduced chance of blood transfusions, shortened hospital and ICUstay , and also reduce need for open surgery and ultimately reduce mortality rate.(2)

The objective of the present study was to determine the prevalence of important endoscopic lesions in patients with dyspepsia who underwent Upper Gastro Intestinal Endoscopy and to identify significant clinical risk factors associated with the presence of such lesions.

MATERIAL & METHODS:

This is a cross-sectional observational study conducted at Bhausaheb Sardesai Talegaon Rural Hospital of patients coming for oesophago-Gastro-duodenoscopy. During study, the data on patients presenting with dyspepsia- (defined as one or more of the following symptoms- epigastric discomfort of pain, post-prandial fullness, epigastric burning and early satiety persisting for more than 1 month) scheduled for Upper GI endoscopy was collected. Patients > 18 years and above (including males & females); Patients with symptoms of epigastric discomfort or pain, post-prandial fullness, epigastric burning and early satiety persisting for more than 1 month, history of hematemesis and malena were included. Patients < 18 years (including males & females); patients who underwent Upper Gastro-Intestinal Endoscopy for UGI haemorrhage; Patients with documented chronic liver disease; patients who had advanced malignancy were excluded from study.

After informed consent and completion of questionnaire, an Upper GI Scopy was performed after adequate history was obtained prior to procedure. The endoscopic evaluation of patient was performed using a sterile **Olympus Video Gastroscope CV 170** from Olympus medical. Patients received 2 ml of 10% lidocaine spray orally while seated on table and we waited between 1 to 5 minutes after the spray for oropharyngeal anaesthesia to take effect before the endoscopy procedure. All examinations were performed by same operator who had been trained in endoscopy.

Statistical analysis:
The distribution of data is represented as number and frequency with mean SD wherever applicable. Test for categorical data was performed using Chi-square Test as chosen by an approved statistician.

RESULTS:

Total of 108 patients were studied, the maximum number of patients belonged to age groups of 31-40yrs (28.7%). 79 were males (73.1%) and 29 were females (26.9%). (Table 1)

Table 1: gender and age distribution of patients presented as number and percentage.

		Number of patients (N)	Percentage (%)
Gender	Male	79	73.1
	Female	29	26.9
Age distribution (yrs)	18-30yrs	30	27.8
	31-40yrs	31	28.7
	41-50yrs	17	15.7
	51-60yrs	23	21.3
	61-70yrs	7	6.5
	Total	108	100

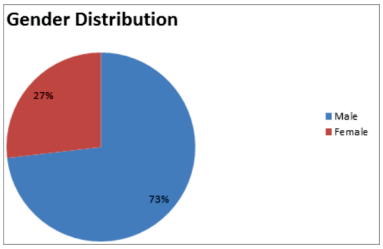

Figure 1. Showing Gender distribution in collected cases.

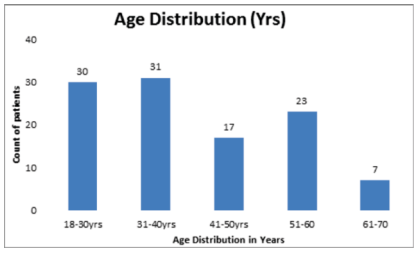

Figure 2. Showing age wise distribution of all the collected cases.

Table 2: Clinical profile of patients included in study.

	Number of patients (N)	Percentage (%)
Normal	5	4.6
Gastritis	69 (M-43; F-16)	63.8
Pan gastritis	4 (M-2; F-2)	3.7
Duodenitis	5	4.6
Oesophageal stricture	4	3.7
Ulcer	1	0.9
Carcinoma epiglottis	2	1.8
Carcinoma esophagus	1	0.9
Carcinoma stomach	2	1.8
Esophageal varices	4	3.7
Reflux esophagitis	3	2.7
Lax hiatus	3	2.7
Ulcero-proliferative growth	2	1.8
Obstruction	3	2.7
Total	108	100

It was observed that the maximum number of GI lesions were located in stomach, followed by the oesophagus and duodenum. Gastritis was seen in 69 cases (63.8%) and pan gastritis was seen in 4 cases (3.7%). Malignant lesions of epiglottis, oesophagus and stomach were seen in 2 (1.8/%), 1 (0.9%) and 2 (1.8%) respectively. 5 cases among the 108 patients whounderwent the investigation were found to be normal. (Table 2)

DISCUSSION:

In our study maximum patients subjected for endoscopy were males (73.1%). In a similar study conducted by Al-Nakib B et.al. series and Shroff CP, the maximum number of patients suffering who underwent endoscopy were also males (72.5% and 62%, respectively).(3,4)

In the present study the maximum number of patients subjected for the endoscopy were aged between 31-50 yrs which was similar to the previous study conducted by Chandail VS and Ray G. (5,6)

In our study, most of the patients with upper GI endoscopy were found to have Gastritis (63.8%), the incidence of the Antral gastritis was the most among other types of gastritis, and 3.7% had pan gastritis. This was similar to other studies conducted by Ray & Pal and Chandail VS.(5,6)

The incidence of the stomach ulcer is low (0.9%) as compared with the research Al-Nakib and Al-Liddawi; Ray and Pal is 5.9% and 4.9% respectively.(4,6) This low incidence can be attributed for the use of proton pump inhibitors in many of the patients who were co-prescribed NSAIDS for the cardiovascular diseases. The incidence of gastric carcinoma was found to be 1.8% which was lower than the previous study conducted by the Ray and Pal, due to the fact that the number of patients above 60 was less and the lesser number of patients subjected for the upper GI Scopy.(6,7) The oesophageal and epiglottis carcinoma incidence was also in correlation with the previous studies conducted.(6)

Oesophageal strictures and oesophageal varices were found to be 3.7% each, which was less when compared to study conducted by Akere A (2016), due to the fact that our patients recruited for the upper GI endoscopy, had normal liver function with no evident portal disease symptoms. (8) Lax hiatus and duodenal obstruction was seen in 2.7% patients.

CONCLUSION:

Upper GI lesions were more common in males compared to females. The incidence of gastritis was more frequent in age group less than 50 years and predominantly amongst males. Gastritis was the most common Upper GI lesion found in EGD. The incidence of malignancy was mostly among the older age group above 50 years. The utility of Upper GI not only helped to identify and diagnose disease but also helped to get the information about the pathology, and complications that could've occurred. This shows the importance of the diagnostic as well as the therapeutic utility of the procedure and helps document the distribution of various upper GI lesions across the population in today's world of higher stress and significantly changed dietary patterns.

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