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Indications and Endoscopy Findings in Patients with Symptoms of Upper Gastrointestinal Disease- Single Centre Experience of 5 Years

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Abstract | **Original Research Article**

Back ground and aim of the study: Esophagogastroduodenoscopy is a widely available and relatively safe procedure (1). Disease of varied symptomatology in relation to upper gastrointestinal tract are very common in clinical practice.The most sensitive modality of investigation available to evaluate the upper gastrointestinal tract is upper gastrointestinal endoscopy. To evaluate findings in patients who have undergone endoscopy for various indications: ***Material and methods:*** It is a retrospective study done in adults for 5years who underwent UGI endoscopy electively between Jan 1st 2014 to Dec. 31st2018 at C.S.I Christian mission hospital, Madurai, Tamil Nadu, India.Their medical records were reviewed to evaluate the indications and outcome of endoscopy. ***Result:*** A total of 814 patients had undergone upper gastrointestinal endoscopy during this period. Males constituted 51.1% of patients while females constituted 48.9%. Male female ratio was 1:1.Age ranged from 18years to 83years with mean of 42.5 years. The commonest indications for endoscopy were dyspepsia in 461 patients (56.6%), followed by gastrointestinal bleeding presenting as haemetemesis and malena in 122 patients(15%).Other indications include dysphagia in 69 patients(8.5%),anemia for evaluation in 68 patients(8.4%),vomiting in 56 patients (6.8%), weight loss in 28 patients(3.4%), hiccough in 10 patients(1.3%).The commonest endoscopy finding was gastritis found in 644 patients(79.1%) and peptic ulcer was diagnosed in 104 patients(12.6%) and 68 patients had evidence of upper gastrointestinal bleed. Common reason for upper gastrointestinal bleed in our study was portal hypertension in 26 patients (38%) followed by peptic ulcer bleeding in 18 patients (26.4%) and rest due to other reasons. ***Conclusion:*** The commonest indication for upper gastrointestinal endoscopy in our study was dyspepsia while commonest endoscopy finding was gastritis. Further more in our study, the common reason for upper gastrointestinal bleed was portal hypertension rather than peptic ulcer disease, in this population. The simple,safe,cost efficient endoscopy remains the 'Gold standard' investigation to evaluate the upper gastrointestinal symptoms, to confirm the disease and to start the management either medical or surgical at earliest time possible to reduce the morbidity and mortality of patients.

Keywords: Upper gastrointestinal endoscopy, indications, findings, dyspepsia, South India.

INTRODUCTION

The symptoms of gastrointestinal disease are common [2, 3]. Majority of patients referred for endoscopy have symptoms termed as dyspepsia [4]. Dyspepsia is defined as a constellation of symptoms that include upper abdominal pain or discomfort, which is intermittent or constant and may be associated with additional symptoms of nausea and vomiting [5]. Other indication is dysphagia, odynophagia and gastrointestinal bleeding [6]. Next common indication for endoscopy following dyspepsia is upper gastrointestinal bleeding. Endoscopic examination of upper gastrointestinal tract remains the "Gold standard" for establishing or excluding peptic ulcer disease and other specific organ disease or upper gastrointestinal pathologies [7].

MATERIALS AND METHODS

This was a retrospective study of patients who had upper gastrointestinal endoscopy between Jan 1st 2014 to Dec. 31st2018 at C.S.I Christian mission hospital, Madurai, Tamil Nadu, India. The gastrointestinal endoscopy unit of the hospital gets referrals from different departments of the same hospital and much private hospital from nearby and other districts. This hospital policy is"open access"

endoscopy where patients are directly referred to the endoscopy unit by their practioners based on the need without prior opinion of gastroenterologist.

The oesophagogastroduodenoscopy was done with end viewing Olympus GIF150 series videoscopy with pharyngeal spray with 10% xylocaine. Done as outpatient procedure followed by observation for one hour. Data of 814 patients who underwent endoscopy were retrived from records including age, sex, occupation, address, indications, symptomatology, endoscopy findings and biopsy reports.

RESULTS

Out of 814 patients who underwent endoscopy, 416 were males and 398 were females. Age ranged from 8 years to 83 years with mean of 42.5years.Highest frequency of distribution noted was between 51 to 60 years (169 patients,20%), followed by 31 to 40 years age group(168 patients 19.3%) and 61 to 70 years(147 patients,18%). Age distribution is as shown in Table 1.

The gender distribution in patients who underwent endoscopy for various upper G.I.Symptoms is as in Table 2.

Table-1: Age distribution of patients who underwent scopy for Upper G.I. Symptoms

S.no	Age	No. of patients	Percentage
1.	<20	35	3.8%
2.	21-30	126	15%
3.	31-40	168	19.3%
4.	41-50	126	15.4%
5.	51-60	169	20%
6.	61-70	147	18%
7.	71-80	38	4.5%
8.	>80	5	0.6%

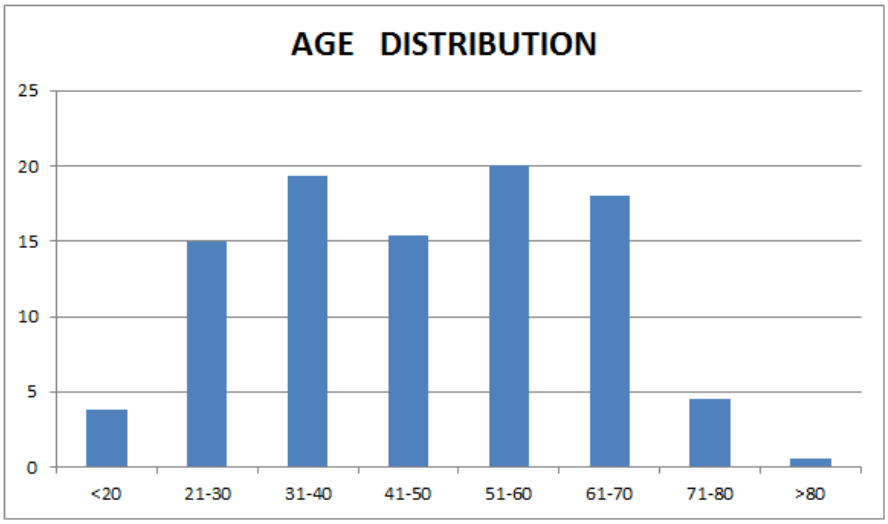

Fig-1: Age distribution of patients who underwent scopy for Upper G.I. Symptoms

Table-2: Male female distribution.

S.no	Sex	No. of patients	Percentage
1.	Male	416	51.1%
2.	Female	398	48.9%
Total		814	

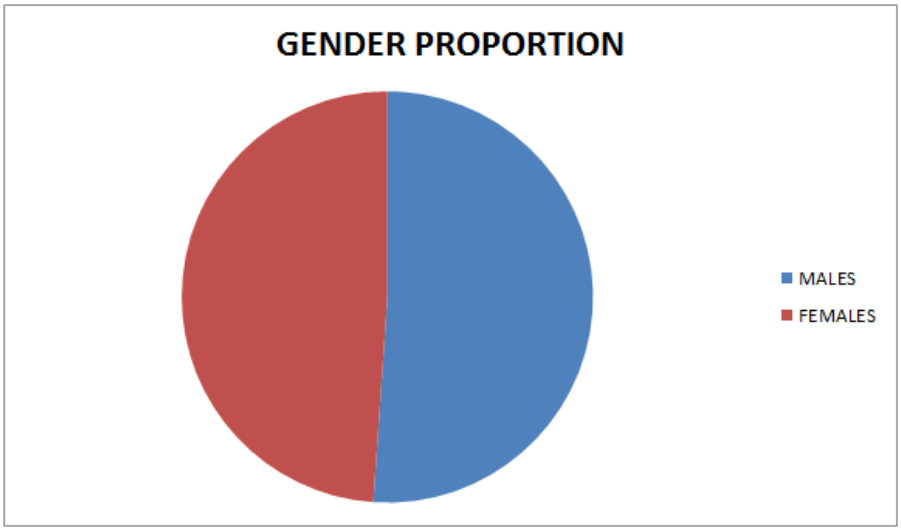

Fig-2: Male female distribution

Various indication for upper gastrointestinal endoscopy in our patients and their frequency distribution are shown in Table 3.

Most common indication in our study was dyspepsia in 461 patients (56.6%) out of total 814 patients who underwent scopy. Commonest endoscopic finding was gastritis seen in 644 (79.1%), followed by duodenitis in 282(34.6%), oesophagitis in 140 patients (17.1%), gastric ulcer in 52 patients (6.3%), duodenal ulcer in 52 patients (6.3%). Other findings are as in Table 4.

Table-3: Indications for endoscopy

S.no.	Indications for endoscopy	No. of patients	Percentage
1	Dyspepsia	461	56.6%
2.	Upper G.I.Bleed	122	15%
3.	Dysphagia	69	8.5%
4.	Anemia	68	8.4%
5.	Vomitting	56	6.5%
6.	Weight loss	28	3.4%
7.	Hiccough	10	1.3%

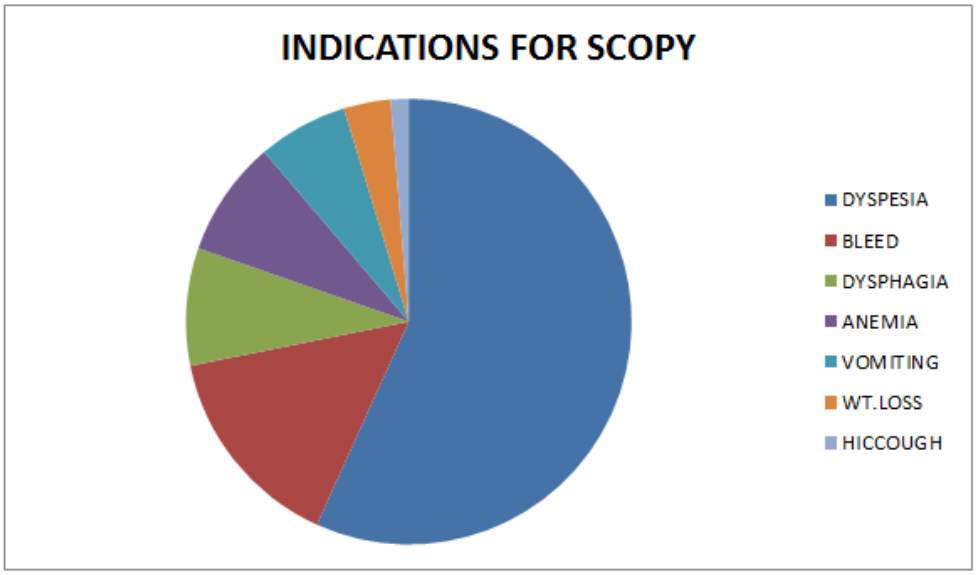

Fig-3: Indications for endoscopy

Table-4: Various endoscopies finding in our patients

S.no	Endoscopy findings	2014	2015	2016	2017	2018	Total	Percentage
1.	Gastritis	126	102	174	126	116	644	79.1%
2.	Duodenitis	57	63	54	45	63	282	34.6%
3.	Oesophagitis	40	32	25	20	23	140	17.1%
4.	Gastric ulcer	9	8	12	16	7	52	6.3%
5.	Duodenal ulcer	11	6	10	18	7	52	6.3%
6.	Hiatus hernia	6	7	9	4	8	34	4.1%
7.	Portal hypertension	5	9	13	5	4	36	4.4%
8.	Oesophageal growth	2	0	5	2	4	13	1.5%
9.	Gastric growth	2	1	0	0	2	5	0.6%
10.	Gastric outlet obstruction by growth	0	0	2	1	3	6	0.7%
11.	Gastric outlet obstruction by ulcer	2	1	1	1	4	9	1.1%
12.	Stricture oesophagus	2	3	0	0	0	5	0.6%
13	Achalasia	0	0	1	1	0	2	0.24%
14.	Duodenal growth	0	0	1	0	0	1	0.1%
15.	Oesophageal candidiasis	0	2	1	2	2	7	0.8

(Many patients had more than one symptom, so percentage exceeds 100)

Out of 461 patients with dyspepsia, gastritis was the common finding in 392(85%). 193 (42%) patients had findings of duodenitis. Oesophagitis were observed in 78 (17%) patients. Gastric and duodenal ulcer was observed in similar proportion 11% with 52 patients each. Other finding is as in Table.5

Table-5: Endoscopy findings in patient with dyspepsia

s.no	Findings	No. of patients	Percentage
1.	Gastritis	392	85%
2.	Duodenitis	194	42%
3.	Oesophagitis	78	17%
4.	Growth stomach	11	2.3%
5.	Duodenal ulcer	52	11%
6.	Gastric ulcer	52	11%
7.	Portal gastropathy	16	3.4%
8.	Normal	16	3.4%

(Many patients had more than one symptom,so percentage exceeds 100)

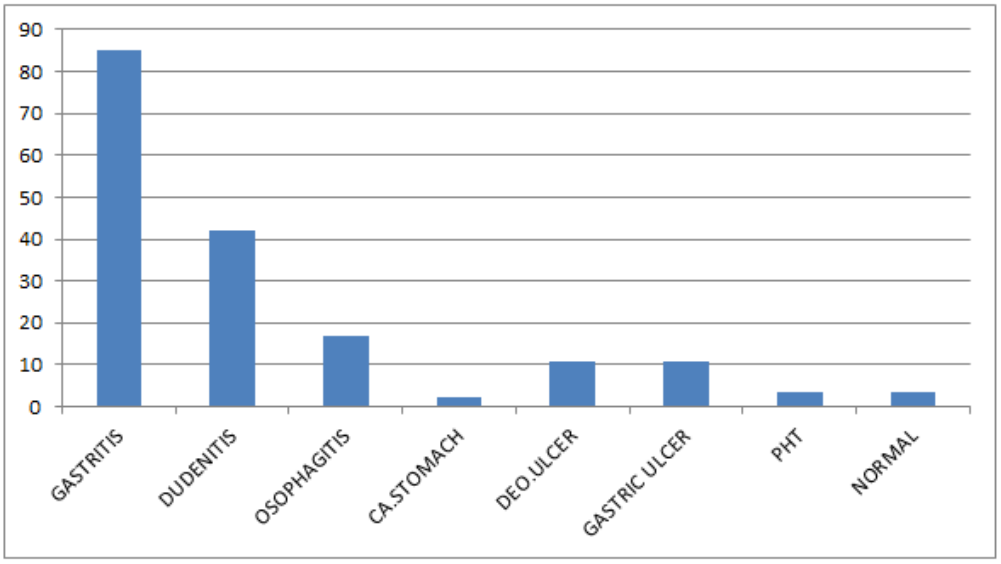

Fig-5: Endoscopy findings in patient with dyspepsia

Out of 68 patients with suspected upper gastrointestinal bleed, 26 patients (38%) had evidence of portal hypertension.18 patients (26.4%) had evidence of peptic ulcer disease. 6 patients (08.8%) had erosion

in stomach or duodenum. Bleeding from growth in stomach was found in 11 patients (16%).In7 patients (10.2%) endoscopy was found normal at the time of procedure. Various other causes are as in Table:6.

Table-6: Endoscopy findings in patients with symptoms of UGI bleed

s.no	Endoscopy finding	No. of patients	Percentage
1.	Evidence of portal hypertension	26	38%
2.	Peptic ulcer	18	26.4%
3.	Gastric/Duodenal erosion	6	8.8%
4.	Growth stomach	11	16%
5.	Normal	7	10.2%

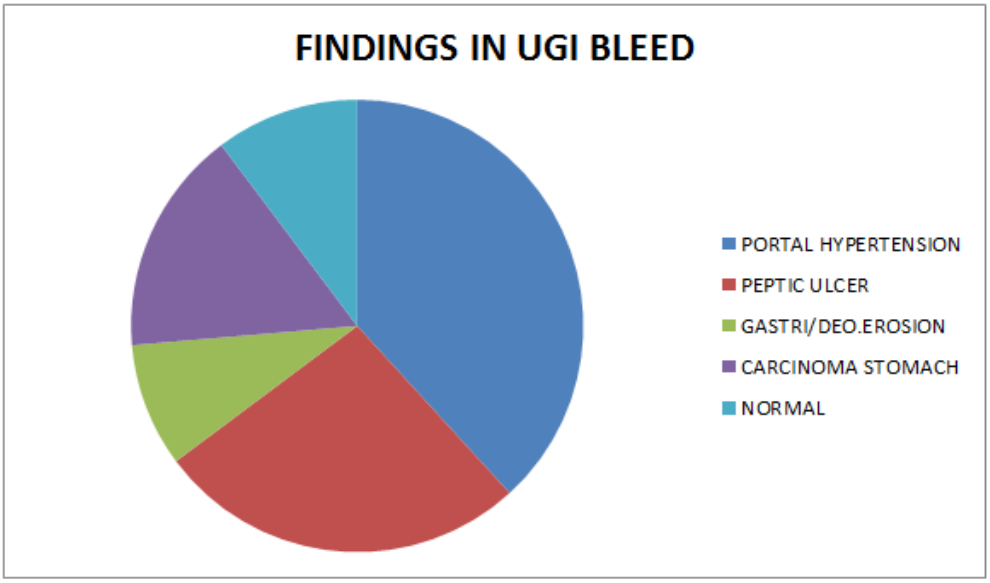

Fig-6: Endoscopy findings in patients with symptoms of UGI bleed

DISCUSSION

This study found a male female ratio of approximately 1:1 in patients who underwent endoscopy. This result was similar to study conducted by Mustapha *et al*. [8]. The mean age was 42.5years in our study. It is similar to study conducted by Danbauchi *et al*. in Zaria [9]. Dyspepsia is the commonest indication for upper gastrointestinal endoscopy in our study which is similar to most of the studies conducted in the world [8-10]. Most common endoscopy finding in our study was gastritis followed by duodenitis. Other studies supporting our study are present [9,11,12]. Wolf *et al*. had esophageal carcinoma as their commonest endoscopy finding [13].

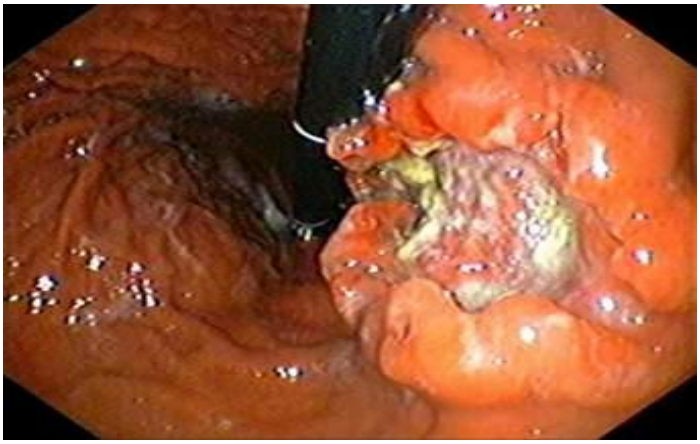

Fig-7: Gastric cancer

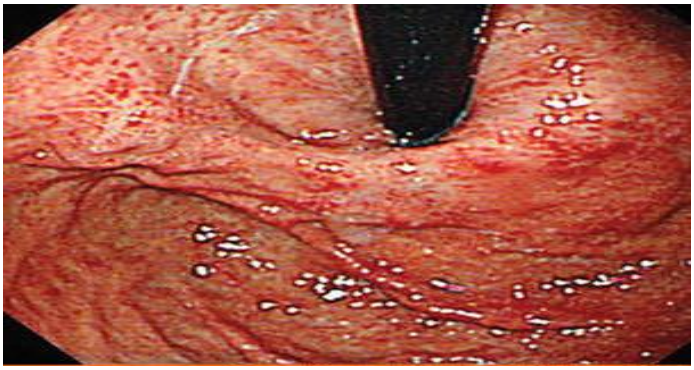

Fig-8: Portal gastropathy

In patients who presented with features of upper gastrointestinal bleeding, evidence of portal hypertension was found more commonly than peptic ulcer disease. This is similar to study conducted in Nigeria [14].This was followed by peptic ulcer diseases and growth stomach. Few patients had normal study when scopy was done. Most of the patients who had bleeding had history of alcoholism as the cause of portal hypertension. Most patients had history of NSAID intake as the cause of duodenitis, gastritis, and gastric ulcer.

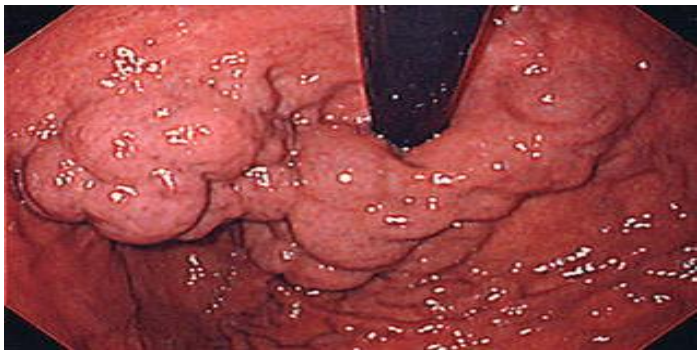

Fig-9: Gastric Varices

All patients with peptic ulcer disease underwent endoscopic biopsy for histopathological examination to look for cytological changes like metaplasia, dysplasia and H. pylori infection. All patients with peptic ulcer disease had chronic nonspecific gastritis on histopathological examination. The evidence of H. pylori infection by histopathological examination in our study was found to be 72% .It was similar to few studies [15]. High positivity probably related to poor sanitary conditions.

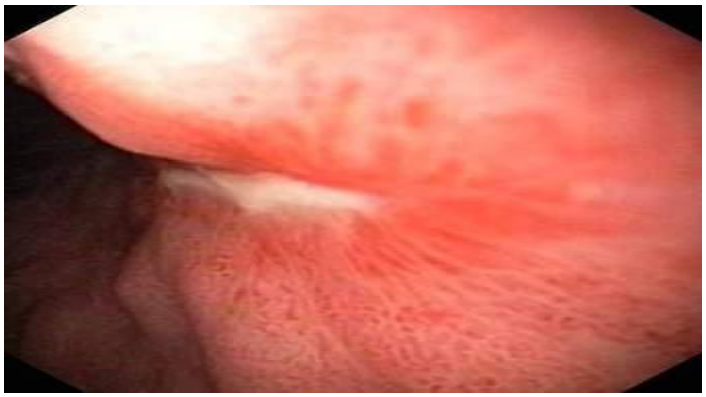

Fig-10: Gastric ulcer

CONCLUSION

In our study, male female ratio was same. Mean average age at endoscopy was 42.5years. Commonest indication for upper gastrointestinal endoscopy was dyspepsia and commonest finding was peptic ulcer disease. Second commonest indication for endoscopy was symptoms of upper gastrointestinal bleeding. The commonest finding observed was evidence of portal hypertension followed by peptic ulcers. All patients of peptic ulcer disease had evidence of chronic gastritis on histopathological examination at

biopsy. H.pylori was positive in 72% of patients who had evidence of peptic ulcer disease.

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