



## UPPER GI ENDOSCOPY

### A REVIEW OF 100 CASES AT INDEPENDENT MEDICAL COLLEGE / INDEPENDENT UNIVERSITY HOSPITAL, FAISALABAD

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**ABSTRACT... Objective:** To document various endoscopic findings in patients undergoing upper GI endoscopy in our endoscopy unit. **Design:** Observational. **Patients and methods:** The data of 100 patients who underwent upper GI endoscopy in Endoscopy Unit of Independent Medical College/ Independent University Hospital from April 2010 to December 2012 was analyzed. Demographic features, reasons for referral and endoscopic diagnoses were noted. **Results:** Among 100 patients, 35% were referred due to persistent vomiting, 28% due to epigastric pain / discomfort, 18 % due to dyspepsia and 7% due to retrosternal burning and upper gastrointestinal bleeding. Common endoscopic diagnoses were gastritis (28%), duodenitis (14%), gastroesophageal reflux disease / esophagitis (6%), esophageal varices (5%) and esophageal growth (4%). **Conclusions:** The most common presenting complaint was persistent vomiting followed by epigastric pain / discomfort and the most common endoscopic finding was gastritis.

**Key words:** Upper GI endoscopy, gastritis

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## INTRODUCTION

Upper Gastrointestinal (UGI) complaints are very common, both in indoor and outdoor practice. Sometimes, they create great diagnostic difficulty. Chronic and recurrent dyspeptic symptoms such as epigastric pain, postprandial fullness, and early satiety are common in the general population<sup>1,2</sup>. The performance of flexible endoscopy has brought significant changes in gastroenterology. Endoscopic examinations sensitivity and specificity are much higher in comparison to x-ray examination of the digestive tract, particularly in smaller lesions<sup>3</sup>.

Diagnostic and therapeutic upper GI endoscopy which is now performed as the first initial examination instead of barium meal is of high value in evaluation and to explore these symptoms<sup>4,5,6</sup>. So, in many centers, UGI endoscopy has become the initial and usually sole diagnostic approach to unexplained UGI symptoms.

Independent Medical College/ Independent University Hospital has recently been established. It has a very large referral area in local vicinity i.e, Marzipura from Faisalabad main city, and adjoining areas of Chiniot , Narwala Bangla and different chaks from Narwala Bypass. The objective of the study was to find out common reasons of referral for UGI endoscopy in the endoscopy unit of this institution, demographic features of referred patients and common endoscopic diagnoses.

## PATIENTS AND METHODS

**Study design** An observational study was conducted that included the data of first 100 patients who underwent UGI endoscopy in our endoscopy unit from April 2010 to December 2012. Patients were referred from inpatient, outpatient and accident & emergency departments.

### Inclusion criteria

Patients aged  $\geq 14$  years of either sexes are included in this study.

### Exclusion criteria

Patients with conditions that could result in emergency endoscopies (e.g., gastro-enterologic hemorrhage and ingestion of caustic substances or foreign bodies).

### Endoscopy

A written informed consent was taken from every patient before the procedure. Olympus fiberoptic Video gastroscope was used. Banding was available (Saeed Six Shooter multiple band ligator). Patient preparation consisted of a 6-hour fast prior to endoscopy. IV line was maintained to cope with any situation during procedure, if patient bleed or went into vasovagal shock. A local pharyngeal anesthetic was administered (4% xylocaine solution was used for gargles) prior to the procedure. Dormicom IV was given to anxious non-cirrhotic patients.

The patient was placed in the left lateral decubitus position and a mouth guard inserted. The endoscopist passed the extreme distal end of the endoscope through the mouth guard, observing through the eyepiece or monitor its passage over the tongue, then the epiglottis and vocal cords, the interior of the esophagus, continuing in this manner until reaching the second segment of the duodenum. On reaching this point, the endoscope was slowly retracted, the endoscopist examining the entire trajectory through which the instrument had advanced.

Parameters recorded were age and sex of the patients, indications for endoscopy, endoscopic diagnoses, and the types of therapeutic intervention.

The data was entered in SPSS 10 software. The quantitative data was recorded as mean and standard deviation and qualitative data as percentage.

### RESULTS

From 100 patients undergone upper GI endoscopy, 33(33%) were male and 67(67%) were female. The mean age of the patients was  $42.45 \pm 16.52$  years. The patients were mainly between 30 and 50 years of age (as shown in table I). Sixty six patients were referred from inpatient Department ( including M.U.I , M.U.II , Surgical ward and Private ward ), Twenty three patients were referred from Outpatient and Eleven from Accident and Emergency departments.

Age group (Yrs)	Women	Men	Total
<20	5	1	6
20-29	11	7	18
30-39	15	10	25
40-49	14	6	20
50-59	13	3	16
60-69	6	4	10
70-79	2	2	4
$\geq 80$	1	0	1
Total	67	33	100

**Table-I. Age group and Sex of 100 patients.**

Women 67% of total; Men 33%; Ratio F/M = 2/1

The common indications for endoscopy were persistent vomiting, epigastrium pain / discomfort, dyspepsia, retrosternal burning, heamatemesia and dysphagia also shown in Table II. Other indications were iron deficiency anemia , chronic diarrhea, weight loss, anorexia and atypical chest pain. Out of 100 patients, fourteen were HCV+ve, only two were HBV+ve and eighty four were HBV/HCV-ve. Out of fourteen HCV+ve patients, seven patients presented with heamatemesia, of which five patients had esophageal varices and four with gastropathy ( three –NSAID-induced and one Portal hypertensive gastropathy ).

The common endoscopic findings were normal 33(33%), Gastritis 28 (28%), Duodenitis 14 (14%), Gastroesophageal reflux disease / Esophagitis 06 (6%), Esophageal varices 05 (5%), Esophageal growth 04 (04%), NSAID-induced gastropathy 03

(3%), Mallory-Weiss tear 02 (2%), Pyloric stenosis 02 (2%), gastric ulcer 02 (2%) and esophageal stricture 01 (01%) shown in Table III. Other findings also seen in these patients were portal hypertensive gastropathy, rudemantry pouch in esophagus, esophageal candidiasis and bleeding diathesis.

The endoscopic procedure was diagnostic in 97(97%) patients and therapeutic intervention (endoscopic variceal band ligation) was carried out in 03 (3%) patients.

Indications	No	%age
Persistent vomiting	35	35.0
Epigastric pain / Discomfort	28	28.0
Dyspepsia	18	18.0
Retrosternal burning	07	7.0
UGI Bleed	07	7.0
Dysphagia	05	5.0

**Table-II. Common indications for UGI endoscopy**

Diagnosis	No	%age
Normal	33	33.0
Gastritis	28	28.0
Duodeninitis	14	14.0
Gastroesophageal reflux disease / esophagitis	06	6.0
Esophageal varices	05	5.0
Esophageal growth	04	4.0
NSAID-induced gastropathy	03	3.0
Mallory-Weiss tear	02	2.0
Pyloric stenosis	02	2.0
Gastric ulcer	02	2.0
Esophageal stricture	01	1.0

**Table-III. Common endoscopic diagnoses**

## DISCUSSION

Our hospital is a budding medical college / hospital providing medical facilities to vast areas of Marzipura, from Faisalabad main city , and adjoining areas of Chiniot , Narwala Bangla and different chaks from Narwala Bypass. So our results reflect attitudes towards utilizing invasive diagnostic facilities, trends of referral, and prevalence of various diseases for which diagnostic and therapeutic UGI endoscopy is required, in this part of our city.

We provide endoscopic services to patients who are adults and older children as we do not have pediatric endoscopes. At present, we do not provide emergency endoscopic service during evening and night. Age and sex ratio of our patients was a reflection of outdoor consultation and indoor admission patterns regarding these parameters and was similar to those of studies from other parts of our country<sup>7</sup>.

Our study presents the data on diseases of the upper GI tract for defi ned population in this area of the city. Chronic and recurrent dyspeptic symptoms such as epigastric pain, postprandial fullness, and early satiety are common in the general population. In our study, most of the patient also present with vomiting, epigastric discomfort and dyspepsia.i.e very comparable with other studies<sup>1,2</sup>.

The relative frequencies of diagnosis of the principal diseases of the upper GI tract obtained in primary care were the ones expected when compared with a series of consecutive endoscopies performed at IGE in 2007. The frequency of diagnosis in a series of 1575 patients seen consecutively in IGE showed that gastritis was also the most frequent (82%), followed by hiatal hernia (31.6%), duodenitis (31.1%), duodenal ulcer (9.7%), esophagitis (9.4%), gastric ulcer (3.4%) and malignant lesions (0.95%)<sup>8</sup>. Our study also shows Gastritis at the top , followed by duodenitis, GERD/Esophagitis , esophageal growth and gastric ulcer. It is very coparable with the study, some variation may be due to geographical variation and eating habits with food

quality at different areas of the world.

We found endoscopic gastritis in 28 out of 100 (28%) cases. The most commonly seen endoscopic gastritis type according to Sydney System<sup>9</sup> was endoscopic erythematous/exudative gastritis, which was indeed the most commonly observed endoscopic gastritis in adulthood<sup>9,10</sup>. The most commonly detected localization of gastritis was antrum which was also seen in our patients<sup>9</sup>. Another study by Aoki K, et al<sup>11</sup> reported gastric prevalence which is most frequent in the population. Du J, Liu J. et al<sup>12</sup> also reported that in Chinese population most frequent is gastritis followed by GERD/esophagitis. Same frequencies seen in our study.

An early endoscopy in cases of UGI bleeding has considerably altered the older concept of the causes of bleeding but the consequences of the events have remained the same. In our study, patient presented with Hematemesis were turned to be diagnosed as case of esophageal varices followed by Gastropath (included both NSAID-induced and Portal hypertensive gastropathy) and peptic ulcer. In a prospective series of 1000 cases of UGI bleeding, peptic ulcer was the most common cause (55%) followed by esophageal varices (14%)<sup>13</sup>. In another data, peptic ulcer disease was responsible for only 21% of episodes of UGI bleeding and esophageal varices for 12% of episodes<sup>14</sup>. Non-specific mucosal abnormalities were the commonest cause of bleeding in this series. In our study, esophageal varices were the most common cause (58%), followed by peptic ulcer disease (11%), esophagitis and NSAIDs-induced gastric erosions.

Gastric ulcer is detected in our study, while duodenal ulcer was not seen. Although we have duodenitis in most patients. It could be due to frequent use of acid suppressing drugs by medical practitioners in patients with symptoms of dyspepsia. Alcohol consumption appeared to play little role as a cause of UGI bleeding in this population, most likely due to religious prohibition of alcohol in the society. Gastric ulcers were more

common as compared to duodenal ulcers and this finding is similar to that seen in studies conducted in Western countries<sup>13,14</sup>, though a local case series gave an opposite result<sup>15</sup>.

The high incidence of esophageal varices was due to the high rate of chronic infection with Hepatitis C and B leading to end stage liver disease. Our results shows the same and are comparable with studies conducted in Pakistan<sup>15-18</sup>. The frequency of normal endoscopy in patients presenting with UGI bleeding varies from 9 to 21% between different studies<sup>19</sup> and it was 33% in our study. Tumors of upper GI tract are less common in our study, but similar data is shown by local studies<sup>16</sup>.

## CONCLUSIONS

Upper GI endoscopy is the only reliable tool for correctly determining the etiology of upper GI complaints and it also has therapeutic potential. Persistent vomiting followed by epigastric pain / discomfort is the most common reason for referral to endoscopic unit and gastritis followed by duodenitis form the major bulk of endoscopic findings reflecting high prevalence of these diseases.

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The  
strongest amongst  
you is he who subdues his self.

Hazrat Ali (R.A)

