

UPPER GASTROINTESTINAL ENDOSCOPIC FINDINGS IN PATIENTS WITH DYSPEPSIA

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ABSTRACT

Objective: The aim of the study was to evaluate oesophagogastroduodenoscopy (OGD) findings in patients presenting with dyspepsia.

Material and Methods: This retrospective, observational study was conducted in Medical "C" unit, Department of Medicine Post Graduate Medical Institute Government Lady Reading Hospital Peshawar from August 2002 to September 2005. Adult patients who underwent upper gastrointestinal (GI) endoscopies for dyspepsia during the period were included in the study. The endoscopies were performed as per the standard protocol with diagnosis based on accepted criteria.

Results: A total of 765 patients with dyspepsia had endoscopy. Amongst them 49.8 % (n=381) were female and 50.2 % (n=384) male. The mean age of the study population was 39.43 years (SD±17.46). A single endoscopic diagnosis was made in 57.2% (n=438) of the studied patients. In 12.8% (n=98) combinations of lesions were seen. Gastritis (13.85%, n=106), oesophagitis (11.1%, n=85), duodenal ulcer (8.1%, n=62), hiatus hernia (7.32%, n=56), duodenitis (7%, n=54%) and gastric ulcer (3.4%, n=26) were the common finding on endoscopy. Duodenal ulcer was more common as compared to gastric ulcer (8.1% vs. 3.4%). Endoscopy was normal in 30% (n=229) of patients. These patients apparently had functional dyspepsia.

Conclusion: Gastro-duodenitis, oesophagitis, peptic ulcer disease and hiatus hernia are the commonest endoscopic diagnosis in patients with dyspepsia. Upper GI endoscopy is a useful diagnostic modality in elucidation of the causes of dyspepsia.

Key words: Upper GI endoscopy, Dyspepsia, Oesophagitis, Gastritis, Gastric ulcer, Duodenal ulcer.

INTRODUCTION

Upper GI complaints are fairly common in the general population at large. Dyspepsia, which is defined as recurrent pain or discomfort centered in the upper abdomen affects 14 to 40% of the population each year. It is usually associated with early satiety, upper abdominal fullness, eructation, heartburn, nausea and vomiting.^{1,2} Patients with alarm features such as dysphagia, haematemesis and or malaena along with selected cases of dyspepsia are candidates for oesophagogastroduodenoscopy (OGD).³

Although treatment of patients with dyspepsia should be individualized, a cost-effective initial approach is to test for *Helicobacter pylori* and treat the infection if the test is positive. If the *H. pylori* test is negative, empiric therapy with a gastric acid suppressant or prokinetic agent is recommended. If symptoms persist or recur after

six to eight weeks of empiric therapy, endoscopy should be performed.⁴ GI endoscopy is the dominant modality for the diagnosis and management of gastrointestinal (GI) disease. The procedure is becoming increasingly common and is carried out by gastroenterologist, internist and general surgeon. Since its inception in 1960 it has evolved considerably and is used more and more for the treatment of gastro luminal pathologies.⁵ The purpose of endoscopy is to identify the specific etiology of the patient's symptoms and thereby institute specific therapy. Early endoscopy for every dyspeptic patient leads to more normal results and is not cost effective.⁶ Normal OGD however is reassuring both to the patient and his physician.

The aim of our study was to identify the spectrum of diseases found on upper GI endoscopies in patients having dyspepsia and to compare it with the earlier studies.

AGE AND SEX DISTRIBUTION OF THE STUDY POPULATION

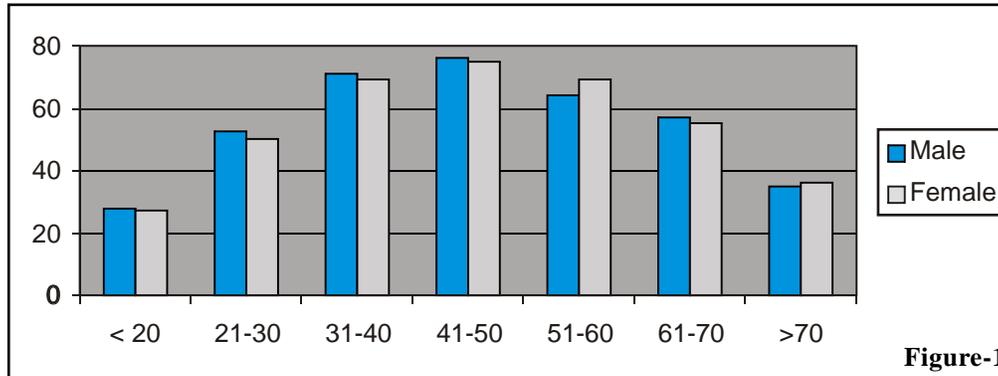


Figure-1

MATERIAL AND METHODS

The endoscopies record of the last 3 years for Medical "C" unit Post Graduate Medical Institute/ Lady Reading Hospital was analyzed retrospectively. We receive patient from all parts of North West Frontier Province (N.W.F.P) including both local and Afghan refugees. Endoscopies are performed in standard way using Olympus video endoscope.⁷ Diagnosis is based on accepted criteria.⁸ Our study included adult patients (age range between 14 to 80 years) with dyspepsia. They were either referred from outpatient department (OPD) and private clinics (open access) or were admitted patients (booked cases). We excluded patients who were positive for hepatitis B or C. The positive cases were referred to a nearby gastroenterology unit for OGD.

The patient's record including name, age, sex, address, and indications for OGD, procedure performed, and endoscopy findings were documented. Histopathology of the biopsy

specimen was retrieved. Helicobacter pylori status was available for few cases only.

RESULTS

Upper GI endoscopies were performed on total of 1460 patients. Amongst them 765 (52.4%) patients had dyspepsia. Endoscopies were incomplete or could not be accomplished in 16 patients due lack of patient cooperation and or failure to pass the scope to the esophagus. These were excluded from the study. We did not have any serious complications during the procedure except one patient who had respiratory arrest and was resuscitated. No patient died during the procedure. The age of the patients ranged from 14 to 80 years with mean age of 39.43 years (SD \pm 17.46). Majority of the patients who underwent the procedure were in the third to fifth decade of life. Male 50.2 % (n=384) and female 49.8 % (n=381) were represented almost equally (Figure 1).

In most patients (n=438, 57.2 %) a single endoscopic diagnosis was made. In others (n=98,

ENDOSCOPIC DIAGNOSIS IN DYSPEPTIC PATIENTS AND THEIR GENDER DISTRIBUTION

Endoscopic Diagnosis	Male		Female		Total	
	n	%age	n	%age	n	%age
Gastritis	52	6.8%	54	7.05%	106	13.85
Oesophagitis	42	5.5%	43	5.6%	85	11.1%
Duodenal ulcer	30	3.92%	32	4.18%	62	8.1%
Hiatus hernia	26	3.4%	29	3.8%	55	7.2%
Duodenitis	30	3.92%	24	3.08%	54	7%
Gastric ulcer	14	1.83%	12	1.57%	26	3.4%
Barrett's esophagus	10	1.3%	8	1.05%	18	2.35%
Varices	5	0.65%	3	0.39%	8	1.04%
Growth stomach	3	0.39%	2	0.26%	5	0.65%
Growth esophagus	3	0.39%	1	0.13%	4	0.52%
Misc. findings	7	0.91%	8	1.05%	15	1.96%
Normal OGD	110	14.38%	119	15.52%	229	29.9%

Table 1

12.8%) multiple pathologies were reported i.e. coexistent esophagitis, hiatus hernia, gastritis, gastric ulcer, duodenitis and duodenal ulcer in varying combinations. Due to heterogeneity of combined they are not included in Table 1. Abnormal OGD was more common in patients above 40 years as compared to younger patients (76.6% Vs 63.4%).

Gastritis (13.85%, n=106) esophagitis (11.1%, n=85), duodenal ulcer (8.1 %, n=62), hiatus hernia (7.2 %, n=55), duodenitis (7%, n=54), and gastric ulcer (3.4 %, n=26) were commonly reported. Barrett's esophagus (2.35%, n=18), esophageal varices (1.04%, n=8), new growth stomach (0.65%, n=5) and oesophagus (0.52%, n=4) represented small percentage of cases. The miscellaneous findings on OGD were Mallory Weis tear (n=3), gastric outlet obstruction (n=2), esophageal diverticulae (n=1), achalasia (1), duodenal diverticulae (n=4), duodenal polyps (n=2) and duodenal worms (n=2).

Endoscopy was normal in 30 % (n=229) of patients (Table 1). These patients apparently suffered from functional dyspepsia. The latter was more common in younger population i.e. below 30 years of age, especially female.

DISCUSSION

Dyspepsia is the major indications for the upper GI endoscopies (52.4% of the cases) in our setup. This is born out by another large retrospective study from our area⁹. More patients with gastro-oesophageal reflux disease had endoscopy in that study and upper abdominal pain and dyspepsia were placed in separate groups in the study while as per the Rome II criteria upper abdominal pain is the defining feature of dyspepsia.¹ Another large retrospective study from Rawalpindi reported lower figure for dyspepsia i.e. 42.6% and higher number of upper GI bleed i.e. (32.8%).¹⁰ There were 10.2% patients with chronic liver disease included in the list of indications for OGD in that study. We excluded patients with Hepatitis B and / or C positive patients for reason already explained. This could explain the higher number of cases with upper GI bleed in the aforementioned study. A study from India reported dyspepsia in 59% of patient undergoing OGD.¹¹

Majority of our patients were in 3rd to 5th decade of life. We had almost equal number of male (n=384, 50.2%) and female patients (n=381, 49.8%).

Endoscopic diagnosis was made in 70% of the patient who underwent the procedure. In the remaining 30% of the patients no specific gastroluminal pathology could be identified. These patients probably suffered from functional

dyspepsia, which is fairly common in our patients.^{12, 13} In our series normal endoscopy was reported more commonly in females (31.2%) as compared to males (28.6%) showing that more females suffer from functional dyspepsia in our setup. The prevalence rate of functional dyspepsia is reported to be higher among women.¹⁴

Abnormal OGD was more common in patients above 40 years of age as compared to younger patients (76.6% Vs 63.4%). This supports the notion that endoscopy should promptly be done for patient above 45 with dyspepsia. Gastritis was the commonest pathology reported (13.85%) in patients who presented with dyspepsia. It was equally common in male and female patient. A study from Saudi Arabia reported antral gastritis to be the commonest gastroscopy finding.¹⁵ A smaller study from rural population of Karachi reported gastritis in over 60% of the dyspeptic patients.¹⁶ The study relied heavily on histopathology and biopsy was taken from both normal and abnormal mucosae and henceforth led to over-diagnosis of gastritis. Nonspecific histologic gastritis may occur in endoscopically normal looking mucosa.¹⁷ We based our diagnosis on gross appearance of the gastric mucosa. Other important cause of dyspepsia included oesophagitis (11.1%), duodenal ulcer (8.1 %), hiatus hernia (7.2 %), duodenitis (7%), and gastric ulcer (3.4 %). This is in concordance with published data.¹⁸

Peptic ulcer disease comprised 11.5% of our patients who underwent OGD for dyspepsia. Duodenal ulcer was more common than the gastric ulcer. The overall frequency of duodenal ulcer in the study population was 8.1% and that of gastric ulcer 3.7%. This is comparable to the earlier study from our area⁹ whereby peptic ulcer disease was reported in 15.42% of the patients. Gastric and esophageal malignancy, constituted a small but significant percentage of patients with dyspepsia i.e. 1.17%. The incidence of upper GI malignancy is rising both locally and internationally.^{19,20} Some patients with dyspepsia had hiatus hernia, Barrett's esophagus and varices as incidental findings, which may not be related to their symptomatology.

Helicobacter pylori status and history of drug intake was not available in our patients. Further more biopsy confirmation of the gastroduodenal inflammation was done in small number of cases. These were certain limitation of the study, which could be rectified in future analysis. Further well designed prospective studies needs to be conducted locally on the subject so as to develop local guidelines for management of dyspepsia.

CONCLUSION

Dyspepsia is a common symptom of upper GI disorder. Upper GI endoscopy is a useful diagnostic modality to identify the specific pathology in patients with dyspepsia. Gastroduodenitis, oesophagitis, peptic ulcer disease and hiatus hernia are the commonest endoscopic findings in these patients. A significant proportion of patients are having functional dyspepsia.

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