

## ENDOSCOPIC FINDINGS IN 100 PATIENTS PRESENTING WITH DYSPESPSIA

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### ABSTRACT

**Objectives:** The objectives of the study were (i) to find out the relative frequencies of various diseases causing dyspepsia and (ii) to identify the individual diseases in different age groups.

**Material and Methods:** This descriptive study was conducted in Medical "B" unit of the department of Medicine Postgraduate Medical Institute Government Lady Reading Hospital, Peshawar Pakistan from February 2004 to January 2005. A total number of 100 patients, 58 male and 42 female with dyspepsia underwent upper GI endoscopy. Patients and their attendants were informed about the procedure and written consents were obtained.

**Results:** The ages of the patients ranged from 15 to 75 years with mean age of 43.50 year + 15.60 years. Non-ulcer dyspepsia in 26 %, duodenal ulcer 23%, gastritis 20%, esophagitis 12%, gastric ulcer 10%, gastric mass 03%, and duodenitis was diagnosed in 06% cases. Duodenal ulcer was common (74%) in 3rd to 4th decade, gastric ulcer in 6th to 7th (78%), esophagitis (65.5%) in 6th to 7th decade, gastritis (74%) in the 4th to 6th decade, non-ulcer dyspepsia (68%) in the patients less than 30 years while gastric mass (27.8%) was diagnosed in patients above 60 years age.

**Conclusion:** Non-ulcer dyspepsia, duodenal ulcer, gastritis and esophagitis are the most common endoscopic findings in dyspepsia. Non-ulcer dyspepsia was more common in the patients less than 30 years of age, duodenal ulcer in 3rd to 4th decade and gastric ulcer in 6th to 7th decade.

**Key words:** Dyspepsia, Endoscopy, Duodenal Ulcer, Gastric Ulcer, Non-Ulcer Dyspepsia.

### INTRODUCTION

Dyspepsia occurs in 25% of adult population and accounts for 5% of general clinics visits<sup>1</sup>. Dyspepsia is the term used for acute, chronic or recurrent pain or discomfort centered in the upper abdomen. This discomfort may be associated with upper abdominal fullness, early satiety, burning, bloating, belching, nausea, retching or vomiting. According to Rome consensus meeting in 1999, dyspepsia is defined as "pain or discomfort in the upper abdomen for at least 12 weeks of preceding 12 month"<sup>2</sup>. Common causes of dyspepsia are gastroesophageal reflux disease (GORD), peptic ulcer and non-ulcer dyspepsia<sup>3</sup>. Serious causes of dyspepsia e.g.; gastric and esophageal carcinomas are rare but must be considered.

Alarm symptoms for dyspepsia are<sup>4</sup>:

- Any sign of chronic gastrointestinal bleeding
- Progressive unintentional weight loss
- Dysphagia
- Persistent vomiting
- Iron deficiency anemia
- Epigastric mass
- Suspicious barium meal.

If any of the above features is present, then dyspepsia needs urgent investigation such as upper GI endoscopy<sup>5</sup>.

In approximately 50-60% of patients, no specific cause is identifiable for dyspepsia. This group is labeled as functional or non-ulcer

**AGE GROUPS IN YEAR**

Age group	Frequency
Below 30	28 (28%)
31-40	20(20%)
41-50	16(16%)
51-60	21(21%)
61-70	13(13%)
Above 70	02(2%)
Total	100

Table 1

**FREQUENCY OF VARIOUS DISEASES ON ENDOSCOPY**

Diseases	Frequency
Non-ulcer dyspepsia	26(26%)
Duodenal ulcer	23(23%)
Gastritis	20(20%)
Oesophagitis	12(12%)
Gastric ulcer	10(10%)
Duodenitis	06(6%)
Gastric mass	03(3%)

Total

Table 2

100

dyspepsia<sup>6</sup>. NUD is due to complex interaction of raised visceral afferent sensitivity, delayed gastric emptying or psychosocial stresses<sup>7</sup>. Most of dyspepsia are recurrent and intermittent.

The purpose of this study was to find out the relative frequencies of various diseases causing dyspepsia and to identify the individual diseases in different age groups.

**MATERIAL AND METHODS**

This prospective observational study was conducted in Medical “B” unit of Postgraduate Medical Institute of Lady Reading Hospital Peshawar from February 2004 to January 2005. The department of medicine PGMI, Govt; LRH Peshawar is well equipped with endoscopy facility.

One hundred patients of either sex, with features of dyspepsia, admitted from out patient department (OPD) were included in the study.

Inclusion criteria for the study were:

- (a) Patients of more than 15 years of age.
- (b) Patients presenting with dyspeptic symptoms of four or more than four weeks duration.
- (c) Patients having negative serology for HBV and HCV.

Exclusion criteria were:

- (a) Patients of age less than 15 years.
- (b) Patients having positive serology for HBV and HCV.
- (c) Patients having chronic liver disease.

Every patient included in the study was informed about the procedure of upper GI endoscopy and a written consent was taken. After an over night fast, these patients were given topical anesthesia with lignocaine jelly. An adult size flexible fiberoptic upper GI endoscope (Olympus version X4B) equipped with video source and biopsy facility was used for all

endoscopies. Intravenous midazolam was used as short acting anaesthesia to allay anxiety of patients. All the endoscopies were performed safely without complication. Gastric masses and peptic ulcers were biopsied. All the specimens were sent to histopathology department PGMI, LRH Peshawar and reported by qualified histopathologist.

**RESULTS**

Out of 100 patients, 58 were male and 42 were female. Male to female ratio was 1.4:1. Mean age of presentation was 43.5 years ± 15.6 years and ranged from 15 to 75 years. Out of 100 patients, 28% were below 30 years age, 20% from 31-40 years of age, 16% from 41-50 years, 21% from 51-60 years, 13% from 61-70 years and 02% of patients above 70 years of age (Table-01). Majority of patients with dyspepsia were in the age range between 20 to 60 years.

The incidence of various diseases on upper GI endoscopy is shown in (Table- 02).<sup>3</sup>

Peptic ulcer disease accounted for 33(%) patients, in which 23(%) patients had duodenal ulcer and 10(%) patients had gastric ulcer.

Duodenal ulcer to gastric ulcer ratio was 2.3:1. Among 23 duodenal ulcer patients, 69.6% were male and 30.4% were females and male to female ratio was 2.3:1. Majority of (74%) of patients with duodenal ulcers were in 3<sup>rd</sup> to 4<sup>th</sup> decade of life. Among 10 gastric ulcer patients, 60% were male and 40% were female and male to female ratio was 1.5:1. Gastric ulcer was found commonly (78%) in 5<sup>th</sup> to 6<sup>th</sup> decade of life. Twenty six patients had normal endoscopic findings. Of these 26 patients, 61.5% were female while 38.5% were male. It was common below 30 years of age. Twenty patients had gastritis. Among these, 60% were male and 40% were females. Esophagitis was evidenced in 12% patients; most of these patients (65.5%) were in 6<sup>th</sup> to 7<sup>th</sup> decade

of life with a male to female ratio 1:3. Gastric malignancy was common beyond 60 years of age. A total of 03 patients had gastric mass, with male to female ratio of 2:1. Six patients were found to have duodenitis with equal male to female ratio (Table-02).

## DISCUSSION

Dyspepsia is a common symptom worldwide. Dyspeptic symptoms may be caused by a variety of conditions such as peptic ulcer disease, gastroesophageal reflux and malignancy. Most often, however, no cause is identified and dyspepsia is deemed to be functional.

In this study, the mean age of adult patients was 43.5 years  $\pm$  15.6 years. There were 58 male and 42 female patients. These results were comparable to that of Rehman MA<sup>8</sup> and Ziauddin<sup>9</sup>. Peptic ulcer disease (33%) was found to be the major cause of dyspepsia in the study. The frequency of peptic ulcer in the study is almost the same as reported in local studies but differs from international literatures<sup>10-12</sup>. In United States of America, peptic ulcer is reported in 25% of population with dyspepsia every year<sup>13</sup>. Our study reported duodenal ulcer to gastric ulcer (DU-GU) ratio 2.3:1 and male to female ratio of 1.8:1. The ratio of duodenal to gastric ulcer reported from developed world is 4:1 which is much more than reported in our study. Studies from the western world have shown a greater frequency of peptic ulcer particularly duodenal ulcer in male population<sup>14</sup>. Among 23 patients having duodenal ulcer, 22 patients were confirmed to have Helicobacter pylori infection on histopathology, while 4 out of 6 patients with duodenitis were also infected with H.Pylori. These result correlate with the studies conducted in the developed world<sup>15, 16</sup>.

Non-ulcer dyspepsia constitutes 26% of total patients in this study. In USA and England, non-ulcer dyspepsia is reported in 50% of population<sup>17</sup>. Thus, there is difference between this study and the ones conducted in developed world. Non-ulcer dyspepsia is hypothesized as an augmental perception of viseral pain<sup>6, 7</sup>. At the moment, there is controversy regarding the role of H. Pylori in non-ulcer dyspepsia<sup>18, 19</sup>.

Gastric malignancy is a serious cause of dyspepsia and reported in 3% cases. This result is almost same as reported in national literature<sup>8, 9</sup>. Our study showed an increased frequency of peptic ulcer with advancing age. Most of peptic ulcers reported in 3<sup>rd</sup> to 6<sup>th</sup> decade of life. Majority of the gastric ulcer patients were older age group than duodenal ulcer patients<sup>20</sup>. Gastric carcinoma was reported in patients more than 60 years of age.

The 2004 NICE (UK National Institute for Clinical Excellence) guidelines emphasize two key points for the management of dyspepsia<sup>21-23</sup>

- (a) Urgent endoscopy is recommended in patients with alarm symptoms<sup>24,25</sup>.
- (b) Patients more than 55 years age with dyspepsia and no alarm symptoms do not require routine referral for endoscopy. However, endoscopy may be considered if symptoms persist despite Helicobacter Pylori eradication, a course of proton pump inhibitor therapy, or where there is a risk of gastric cancer or anxiety about cancer is heightened<sup>26</sup>.

Dyspepsia is responsible for substantial health care costs and considerable time lost from work. Only early diagnosis and effective management with cost effective approach can reduce this extra burden on society.

## CONCLUSION

Dyspepsia is relatively common problem in this part of the world. Non ulcer dyspepsia, duodenal ulcer and gastritis were three leading causes of dyspepsia in this study. Non-ulcer dyspepsia was more common in the patients less than 30 years of age, duodenal ulcer in 3<sup>rd</sup> to 4<sup>th</sup> decade and gastric ulcer in 6<sup>th</sup> to 7<sup>th</sup> decade.

Careful evaluation of patients can avoid costly investigations. However, dyspeptic patients with alarm symptoms such as weight loss, organomegaly, abdominal mass or fecal occult blood needs proper work up. Endoscopy is the gold standard for diagnosis of various causes of dyspepsia. It provides sufficient patient reassurance and is the investigation of choice for targeting therapy.

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