A CLINICAL STUDY OF DYSPEPSIA IN KIMS HOSPITAL.Lakshmi S¹, Tejasvi Kumar C²**HOW TO CITE THIS ARTICLE:**

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ABSTRACT: A study was carried on 100 patients with features of dyspepsia at KIMS, Bangalore. A set of questionnaire has been asked regarding symptoms, age, sex, residence, income and were subjected to upper gastrointestinal endoscopy. H. pylori identification was done by rapid urease test using biopsy samples taken from antral mucosa. The study shows overall prevalence of H. pylori to be around 63% in dyspeptic patients. Its presence is more with ulcerative dyspepsia than non-ulcer dyspepsia. It is associated with lower socioeconomic status and its prevalence increases with age but nearly similar in both sexes.

KEYWORDS: Dyspepsia, Ulcer.

INTRODUCTION: Dyspepsia is a common condition prevalent in >1/4th of the general population and is frequent reason for medical consultation.¹ Studies in India had reported prevalence of dyspepsia in general population as around 30 %.² After the discovery of H. pylori, many studies have shown its consistent association with ulcer dyspepsia (peptic ulcer disease) and less commonly with functional dyspepsia. This study intends to study the role of H. pylori in cases presenting at a single institute.

MATERIALS AND METHODS: 100 cases of uninvestigated dyspepsia were selected randomly over a period from January 2010 to June 2012, after detail questionnaire about dyspepsia symptoms and their clinical profile. Personal interview about demographic (age, sex, residence) and socioeconomic factors (income), studies as per the proforma. A diagnostic upper GI endoscopy was performed after interview. Finally, mucosal biopsies were taken and subjected to rapid urease test to determine the H. pylori infection status.

INCLUSION CRITERIA: Patients >12 years attending KIMS Hospital, Bangalore with at least two symptoms of dyspepsia. (Upper abdominal pain/discomfort, nausea, vomiting, bloating, post prandial fullness, belching and early satiety) for a period of one month.

EXCLUSION CRITERIA:

- Age <12 years.
- Previously treated for H. pylori in last 6 months.
- Previously undergone surgery for upper gastrointestinal tract.
- Patients with predominant reflux symptoms GERD/Ca Oesophagus.
- Patients with history of gall stones/gall bladder diseases.
- Patients with recent history of ischemic heart disease.
- Patients on long term NSAID's.
- Pregnancy.

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According to upper G.I. scopy findings, the patients were divided into following groups:

1. Non-ulcer dyspepsia (functional dyspepsia).
Normal study (endoscopic finding).
2. Organic dyspepsia.
Gastric ulcer.
Duodenal ulcer.
Gastritis/Duodenitis.
Carcinoma stomach.

RESULTS: Around 800 cases with features of dyspepsia were evaluated in surgical unit during the period from January 2010 to June 2012 in KIMS, Bangalore. Among these patients, 504 were H. pylori positive with prevalence of H. pylori in our hospital being 63%.

In our study 100 patients with history of dyspepsia were included for detailed evaluation.

The results of the study are as follows:

Types	M: F	Total cases
Organic dyspepsia	45:19	64
Functional dyspepsia	25:11	36

Table 1: Sex incidence in various groups

Out of 100 patients, 63 patients were diagnosed to have infected with H. pylori (63%).

In organic dyspepsia dyspepsia 47 of 64 cases are infected with H. pylori and in functional dyspepsia 16 of 36 cases are infected.

Cases	No. of cases	H. pylori positive	Percentage
Organic dyspepsia	64	47	73.4%
Functional dyspepsia	36	16	44.4%
Total	100	63	63%

Table 2: Incidence of H.pylori in different dyspeptic groups

Incidence of H. pylori was higher in Organic dyspeptics.

Cases	Total number	H. pylori positive	Percentage
Normal study(functional)	36	16	44.4
Gastritis/duodenitis	30	21	70
Gastric ulcer	12	8	66.6
Duodenal ulcer	20	17	85
Carcinoma stomach	2	1	50

Table 3: Incidence of H. pylori in various subgroups

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- 1. Organic dyspepsia:** In this group there were 64 patients, out of which there were 45 males and 19 females. The age range was from 20 years to 69 years. 47 out of 64 patients were infected with *H. pylori* 73.4%.

This group is further divided into sub groups.

- Gastritis/Duodenitis.
- Duodenal ulcer.
- Gastric ulcer.
- Gastric carcinoma.

1a. Gastritis/Duodenitis: In this subgroup there were 30 patients, of which 21 were infected with *H. pylori* (70%). There were 18 males and 12 females. The age range was from 20-69 years.

1b. Duodenal ulcer: Out of 20 patients with duodenal ulcer, 17 patients were infected with *H. pylori* (85%). There were 2 females in this group. Age ranges from 20 to 69 years.

1c. Gastric ulcer: There were 12 patients who have gastric ulcer, of which 8 patients were infected with *H. pylori* (66.6%).

1d. Carcinoma stomach: Out of 100 cases, 2 cases identified as carcinoma stomach.

- 2. Functional dyspepsia:** In this groups there were 36 patients, of which 16 patients were infected with *H. pylori* 44%. There were 25 male patients and 11 female patients in this group. The age range was from 20-69 years. These patients presented with symptoms of dyspepsia, but the upper G.I. scopy was normal.

Endoscopic findings	No. of patients	Percentage
Carcinoma	1	1.6%
Gastric ulcer	8	12.7%
Duodenal ulcer	17	27%
Gastritis/duodenitis	21	30%
Normal study	16	25.4%
Total number of patients	63	100%

Table 4: Clinical presentation of patients with *H. pylori* infection

There were 63 cases of dyspepsia with *H. pylori* infection. 16 patients had normal study on endoscopy and out of remaining 47 cases, gastric ulcer 8 cases, duodenal ulcer 17 cases, gastritis/duodenitis 21 and gastric malignancy 1 case.

Symptom	Functional dyspepsia	Organic dyspepsia
Epigastric pain	25	58
Bloating	35	27
Post-prandial fullness	25	16
Nausea/Vomiting	8	48
Satiety	31	24
Heart burn	4	36
Belching	12	14

Table 5: Symptomatology un dyspepsia

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Age in years	Total cases	Male	Female	H. pylori positive	Male	Female	Percentage
20-29	17	13	4	6	2	4	35.3%
30-39	32	20	12	18	12	6	56.3%
40-49	27	19	8	20	14	6	74.1%
50-59	15	11	4	12	9	3	80%
60-69	9	7	2	7	5	2	77.8%

Table 6: Prevalence of H. pylori in different age groups

Location	Total cases	H. pylori positive cases	Percentage
Rural	41	39	95%
Semi urban	35	22	62%
Urban	24	2	8.3%

Table 7: Prevalence of H. pylori in dyspeptic patients of different location

Income group	Total cases	H. pylori positive cases	Percentage
Low income	43	35	81.4%
Medium	30	21	70%
High income	27	7	25.9%

Table 8: Prevalence of H. pylori in various income groups

DISCUSSION: Prevalence of H. pylori in dyspeptic patients (investigated cases) in our hospital is around 63% and this study is comparable to study conducted in other developing country like Euthopia by Asrat D.³ In our study 100 patients with history of dyspepsia were included. In this 70 are male and 30 are female. Out of 100 cases there were 64 cases of organic dyspepsia compared to 36 cases of functional dyspepsia. Even though there are less cases of functional dyspepsia, morbidity associated with it is significant.

In our study 21 of 30 females are positive for H. pylori compared to 42 out of 70 male dyspeptic patients. This gives information that H. pylori presence is nearly same in both sexes. Marshall and Warren (1984) observed that 18 out of 22 (81%) patients with gastric ulcer and all the 13(100%) patients with duodenal ulcer were positive for H.pylori.⁴ In 59 patients with gastritis/duodenitis, 32 were positive for H. pylori (54.73%). In patients with normal upper G.I. scopy 8 out 16 patients were positive for H. pylori.

Prince et al (1985) demonstrated H. pylori in 5 out of 10 patients with gastric ulcer (50%). In 23 patients with duodenal ulcer there were 18 patients with H. pylori positivity. In patients with normal upper G.I. scopy, the H. pylori positivity was 36%. VonWulfen et al. (1986) in their study of 180 patients found an overall positivity in 98 patients (49%)⁵. They further observed that in patients with duodenal ulcer, 45 out 54 patients showed H. pylori, while 13 out 18(73%) patients with gastric ulcer showed H. pylori. 79 out 127 patients with gastritis/duodenitis were positive for H. pylori (62%).

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CONCLUSIONS: In our study there was a linear increasing trend in prevalence of H. pylori with age in dyspeptic patients. H. pylori presence is nearly same in both the sexes. This study gives information that H. pylori is more common in rural and semi urban places compared to urban locality and its commonly associated with lower socioeconomic group (81.4%). Our data imply that Helicobacter pylori infection has an overall prevalence of around 63% in dyspeptic patients. Its presence is more with ulcerative dyspepsia than non-ulcer dyspepsia. And it's associated with lower socioeconomic status and its prevalence increases with age but nearly in both sexes.

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