Original article:

# Clinico-endoscopic Correlation of Dyspepsia at Tertiary Care Centre

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## ABSTRACT

**Introduction** Dyspepsia is one of the most common clinical problems in the gastrointestinal patient population. Most of the patients don't seek medical treatment until it limits their daily work. In the current work, we explored the relationship between clinical symptoms, endoscopic findings, and histopathological characteristics. We intend to help in the proper management of dyspepsia through this study.

Aims and objectives of this study are,

1. To study the correlation of clinical symptom, endoscopic findings, biopsy for H-Pylori infection in dyspeptic patients.
2. To study the co-relation of endoscopic findings with clinical symptoms in patients.
3. Socio-demographic analysis of patients having dyspepsia.

**Material and Methods:** We utilized the two-year cohort for this study which includes all cases diagnosed with dyspepsia at surgery OPD at the tertiary care center. It's a study with a sample size of n=60. All patients were subjected to endoscopy and biopsy was taken for H. pylori infection. Caloric card test and histopathological examination were also reviewed.

**Results:** Our findings demonstrate that there was a male preponderance that is M: F =1.4:1. Patient population between 20 to 40 yr. was most affected. Most commonly found symptom included epigastric pain along with inflammatory changes like esophagitis, gastritis, duodenitis. To summarize, there is a correlation between clinical symptoms and endoscopic findings in dyspepsia.

**Conclusion:** We can conclude that inflammatory change is the most common endoscopic findings associated with dyspepsia. Lifestyle modification, H. pylori eradication plays the main role in the management of dyspepsia.

Keywords:- dyspepsia, endoscopy, H.pylori, lifestyle changes

## INTRODUCTION

Human beings are unique in their food habit, as they consume food even when they are not hungry. Food has always been prime need of all living creatures, human with their gifted intellect have invented cooking and experiment a lot with food. Accessibility to the different geographic region has changed the pattern of food habit in most of the world .change in lifestyle, consuming food irrationally, and overburden of digestive system leads to bad digestion that is dyspepsia.

Dyspepsia is the most prevalent, complaint, the patient presents to the general practitioner and gastrointestinal clinics. Various studies have been conducted and the criteria used for diagnosis of dyspepsia. Rome III criteria for

dyspepsia is most commonly used one. The Rome III criteria defined dyspepsia as 1 or more of the Symptoms such as (1)-

1. Postprandial fullness
2. Early satiety
3. Epigastric pain or burning.

Dyspepsia if persist, can be cause for loss of work hours, disturbed social and individual life .it can be an alarming symptom(2) for a more serious underlying cause to be treated seriously

This is our humble attempt to evaluate patient of dyspepsia by endoscopy and help them in appropriate treatment.

**Aims and objectives of our study are:-**

a)      To study the correlation of clinical symptom, endoscopic findings, biopsy for H-Pylori infection in a dyspeptic patient.

b)      To study the co-relation of endoscopic findings with clinical symptoms in patients.

c)      Socio-demographic analysis of patients having dyspepsia.

**Inclusion Criteria**:

1)      All patients attending the surgery, OPD with symptoms of dyspepsia.

2)      All patients having alarm symptoms.

Unintentional weight loss (=>3Kg),      Unexplained Iron deficiency anemia

Gusto-intestinal bleeding,      Dysphasia and Odynophagia

Previous gastric surgery,      Persistent *continuous* vomiting

Epigastric mass,                      suspicious barium meal,

Previous gastric ulcer.


**Exclusion Criteria:**

1)      Paediatric patients

2)      Previous diagnosed duodenal ulcer & cases on treatment.

3)      Patients underwent endoscopy & on treatment.

## MATERIALS & METHODS

This is two years study of all cases presenting with dyspepsia at coming in surgery OPD at tertiary care center Patient attending surgery OPD with symptoms of dyspepsia and satisfying inclusion criteria will be included in the study as a sample. It's an observational study. our sample size is 60

## STATISTICAL ANALYSIS

1) Patient attending surgery OPD for dyspepsia symptoms will be included in the study for a period of two years. Counseling of patients will be done & procedure and follow-up will be explained to them.

2) Upper GI endoscopy of patients will be done for evaluation of symptoms and findings noted.

3) Biopsy of patients will be taken for pyloric evaluation which will be subjected for caloric taste and HPE.

4) The patient will be treated as per findings and symptoms.

5) Follow-up of patients on 7, 14,21,30,45 day.

6) Follow-up endoscopy as and if required during follow-up study if symptoms are not relieved or new symptoms arise.

If any invasive methods are included in this study that is for the benefit of the patients and their proper management

### Equipment

1) Consent forms
2) Endoscopy set
3) Endoscopic Examination Performa.
4) Caloric Test Kit.

### Methodology

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### RESULTS

The present study was carried out over a period of two years that is from 2015 to 2017 ... the 60 patient with dyspeptic symptoms were studied for correlation between clinical features and endoscopic findings in them. We also studied the sociodemographic aspect of these patients. We included all patient having an alarm feature. we

excluded all patients who were already taking treatment and diagnosed a patient on the previous endoscopy or gone under endoscopy already .our observations during this study are as follows:-

All patients were subjected to endoscopy and biopsy was taken and biopsy was taken for h. pylori, caloric card test, and histopathological examination

1) There was male preponderance that is M: F =1.4:1

2) Age group 20 to 40 yrs. was most affected with minimum affection in 10 to 20 yrs. of age was seen

3) Urban and lower socioeconomic strata population was most affected

4) Epigastric pain was most common symptom found

5) Inflammatory changes like esophagitis, gastritis, duodenitis dominated the endoscopic findings

6) Non-vegetarian were more prone, so were hot beverages drinkers (90%)

7) H. pylori affection was seen in >40% of cases

We can summarize that correlation exists between clinical symptoms and endoscopic findings in dyspepsia.

## DISCUSSION

The worldwide prevalence of dyspepsia is high (1)but not all these patients attend opd and that is why it is part of daily clinical practice to see many patients with dyspepsia. The decision to proceed to endoscopy in these patients depends on the presence or absence of alarm manifestations proposed by the American Gastroenterological Association. In our study, there were more males 58%% than females 42%, that is M: F ratio is 1.4: 1. The age pattern is closely similar to those of other studies with very few presenting before the age of 20years, peaking in the fourth decade and from a study by Mohammed Hassan et al (2)  a mean age of 41.45years (SD +15.343) probably because UGI tract diseases are prevalent in the adult population. The reasons for sex and age differences are due to varying sample size, geographical location and time period of a study carried out.  In our study, there is an increase in the prevalence of dyspepsia from 20 to 50 years of age which is similar to other studies. Mean age of involvement is 34.41 years. Patient with dyspepsia have symptoms which they can't technically clearly. Most of the patient with dyspepsia report with epigastric pain as the commonest symptom. In our study, 40% of patients present with this complaint Lawson-Ananissoh L.M et al(3) and Peghini M. Antananariv et al(4) has reported 60.68% and 72.9% of patients presenting with epigastric pain. Although on slight on the lower side, this correlates with the study, epigastric pain being the commonest symptom.

From other studies from the different geographical region, it is evident that findings on endoscopy in dyspepsia differ widely. Inflammation is found to be the commonest finding, followed by ulceration. In our study, inflammation and erosions were common in the esophagus and stomach; duodenitis in the duodenum, the duodenal ulcer was least common. Our findings correlate with the above findings with the same variations

What we eat affects our digestive system .type of food usually relates with symptoms In our study 57% of cases were nonvegetarian while 27% were vegetarian In the study by Shah et al (3)31.2 % were non vegetarian and 29.2% were vegetarian Saneei p(5) at al found 54% to be nonvegetarian and 23%  to be vegetarian.H. pylori has been enumerated as a cause of dyspepsia from its discovery till date .h. pylori have been associated with various upper gi disorders(6)

In our study, we undertook biopsy from inflamed mucosa of all patients and did the caloric test and histopathological examination of the sample. Of the sample, 61% of patients have a positive caloric test and only 40% biopsy was positive for h. pylori study by Mohammad et all (7),agbakwuru et al, Nkrumah et al(8), found that 38 %, 31%,38% of patients has positive biopsy.this also correlates with our study

**Conclusion**:

From the present study, we can conclude that,

1) Inflammatory change is commonest endoscopic findings associated with dyspepsia

2) H. pylori infection is responsible for dyspepsia in > 40% of cases

3) Unhealthy lifestyle and self-medication can aggravate the dyspepsia

4) Change in food habit and lifestyle modification along with treatment gives early relief from symptoms

5) India been country of spices, day to day food articles are usually spiced up, nonvegetarian food has to be spicy and hot, so no wonder with the change in lifestyle and stress levels with added addiction the role of dyspepsia in these patients is more (5)

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## TABLE 1: comparison with other studies

| studies | complaints | scopy findings | | | | addiction an drug intake | | | | H.pylori test |
|---|---|---|---|---|---|---|---|---|---|---|
| | epigastric pain | gastritis | gastric ulceration | duodenal ulceration | oesophagitis | smoking | alcohol | NSAIDS | tea | |
| Yasmin khan etal | 65% | 30% | 6.70% | 60% | 3.50% | 17% | 44% | 55% | 20% | 31% |
| Mohammed et al(16) | 50% | 59% | 40% | 20.10% | 5.10% | 20% | 33% | 44% | 11% | 22% |
| Nikrumah,Saudi arabia (2011) | 59% | 31% | 60% | 30% | 49% | 39% | 55% | 66% | 33% | 34% |
| Agbakwuru et al(2016)(16) | 69% | 35% | 42% | 30% | 16% | 8.50% | 48% | 21% | 45% | 31% |
| our study | 40% | 65% | 40% | 60% | 60% | 38% | 30% | 26% | 90% | 40% |
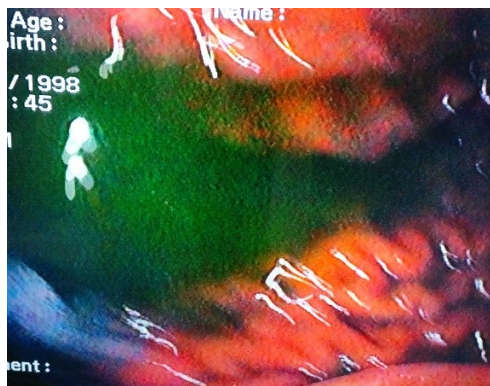
**Fig:1:Bile in the stomach on endoscopy**
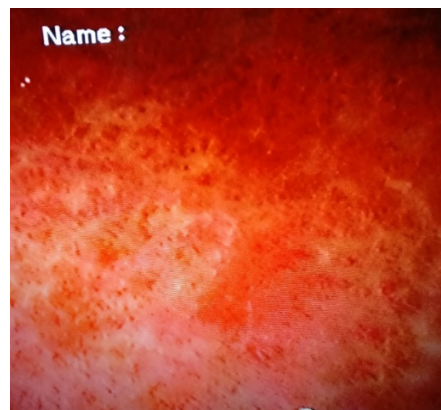


**Fig:2: Changes of gastritis in case of H.pylori infection**

**Table: 2**

**Association of clinical symptoms with endoscopic findings**

| symptoms | endoscopic findings | | |
|---|---|---|---|
| | esophagus | Stomach | Duodenum |
| epigastric burning | 41(68%) | 39(65%) | 38(63%) |
| early satiety | 25(42%) | 41(68%) | 30(50%) |
| postprandial fullness | 24(40%) | 45(75%) | 32(53%) |
| nausea | 22(37%) | 24(40%) | 22(37%) |
| vomiting | 32(53%) | 30(50%) | 25(42%) |
| bloating | 23(38%) | 40(67%) | 22(37%) |
| water and food regurgitation in mouth | 32(53%) | 35(58%) | 20(33%) |

**Fig:3: correlation between clinical symptoms and endoscopic findings**