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Original Research

Evaluation of Endoscopic findings in Dyspepsia patients with Special Reference to Helicobacter pylori

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***ABSTRACT*:**
Background: Dyspepsia involves at least one of the cases of belly dysfunction after meals, early onset satiety when a person eats a normal meal, and epigastric pain or burning sensation. **Aim of the study:** To study endoscopic findings in dyspepsia patients with special reference to Helicobacter pylori. **Materials and methods:** The study was conducted over a period of 1 year. A total of 50 patients were selected as participants for the study. Patients presenting with dyspeptic symptoms not cured by taking medications (other than H. pylori kit) for a minimum of 14 days, hemodynamically stable were included in the study. The participating patients underwent Esophagogastro-duodenoscopy and rapid urease test using the rapid urease kit which detects the urease enzyme produced by the H. pylori. **Results:** The number of male patients was 38 and number of female patients was 12. The mean age of the participants was 45.36 years. It was seen that epigastric pain was the most common symptom (34%) and retrosternal burning was least common (20%). It was observed that 34 patients were found to be positive for H. pylori. The most common endoscopic finding was gastric ulcer (n=23) and the number of H. Pylori patients with gastric ulcer was 18. **Conclusion**: Within the limitations of the present study, it can be concluded that H. pylori infection is quite common in patients with dyspeptic symptoms. It is advisable to get an endoscopy for the patients reporting with dyspeptic symptoms as there is a high rate of positive finding among these patients.
Keywords: Dyspepsia, H. Pylori, endoscopy.

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INTRODUCTION:

The term dyspepsia (Greek "dys" [bad], "pepsis" [digestion]) is used for a spectrum of symptoms localized by the patient to the epigastric region (between the navel and the xiphoid process) and the flanks. These symptoms include epigastric pain and burning (60 to 70%), feeling bloated after a meal (80%), early satiation (60 to 70%), distension in the epigastric region (80%), Nausea (60%), and vomiting (40%). The symptoms of dyspepsia may be acute, e.g., in gastroenteritis, or chronic. In the latter case, underlying organic (e.g., ulcer, reflux, pancreatic disease, heart and muscle disease) or functional factors may be responsible. On diagnostic work-up, 20 to 30% of patients with dyspepsia are found to have diseases that account for their symptoms.[1,2] Functional dyspepsia (synonym: irritable stomach syndrome) is present whenever routine diagnostic investigations, including endoscopy, do not identify any causal structural or biochemical abnormalities.[1-3] Findings such as gallstones, hiatus hernia, gastric erosions, or "gastritis" do not necessarily explain the symptoms and thus do

not contradict a diagnosis of functional dyspepsia. Helicobacter pylori is a Gram-negative gut bacterium associated with dyspepsia, peptic ulcer disease (PUD), and gastric cancer.[4] Transmitted by the fecal-oral route in childhood, around 50% of the world's population is infected with H pylori,[5] with rates being higher in developing countries with lower socioeconomic status.[6] Hence, the present study was conducted to study endoscopic findings in dyspepsia patients with special reference to Helicobacter pylori.

MATERIALS AND METHODS:

The present study was conducted in the Department of Gastroenterology, Sardar Patel Medical College Bikaner, Rajasthan. The ethical clearance for the study was approved from the ethical committee of the hospital. The study was conducted over a period of 1 year. A total of 50 patients were selected as participants for the study. Patients presenting with dyspeptic symptoms not cured by taking medications (other than H.pylori kit) for a minimum of 14 days, hemodynamically stable were included in the study. An informed written consent was obtained from the participating patients after explaining them the procedure and protocol of the study. Those patients who had a history of NSAID or steroid intake, alcoholics, smokers orthose patients with proven Zollinger Ellison Syndrome were excluded. The participating patients underwent Esophagogastro-duodenoscopy and rapid urease test using the rapid urease kit which detects the urease enzyme produced by the H. pylori. The data was collected using a proforma and projected as tables and figures.

The statistical analysis of the data was done using SPSS version 11.0 for windows. Chi-square and Student's t-test were used for checking the significance of the data. A p-value of 0.05 and lesser was defined to be statistically significant.

RESULTS:

In the present study, a total of 50 patients were evaluated. The number of male patients was 38 and number of female patients was 12. The mean age of the participants was 45.36 years. Fig 1 shows the dyspeptic symptoms and their frequency in patients. It was seen that epigastric pain was the most common symptom (34%) and retrosternal burning was least common (20%). Table 2 shows endoscopic findings and H. pylori patients. It was observed that 34 patients were found to be positive for H. pylori. The most common endoscopic finding was gastric ulcer (n=23) and the number of H. Pylori patients with gastric ulcer was 18. Second common finding was duodenal ulcer, which was seen in 10 patients, of which 6 were H. pylori positive. The least common finding was suspected malignancy.

Table 1: Demographics of the study population

Variables	Number
Total no. of patients	50
No. of male patients	38
No. of female patients	12
Mean age (years)	45.36

Fig 1: Dyspeptic symptoms and their frequency in patients

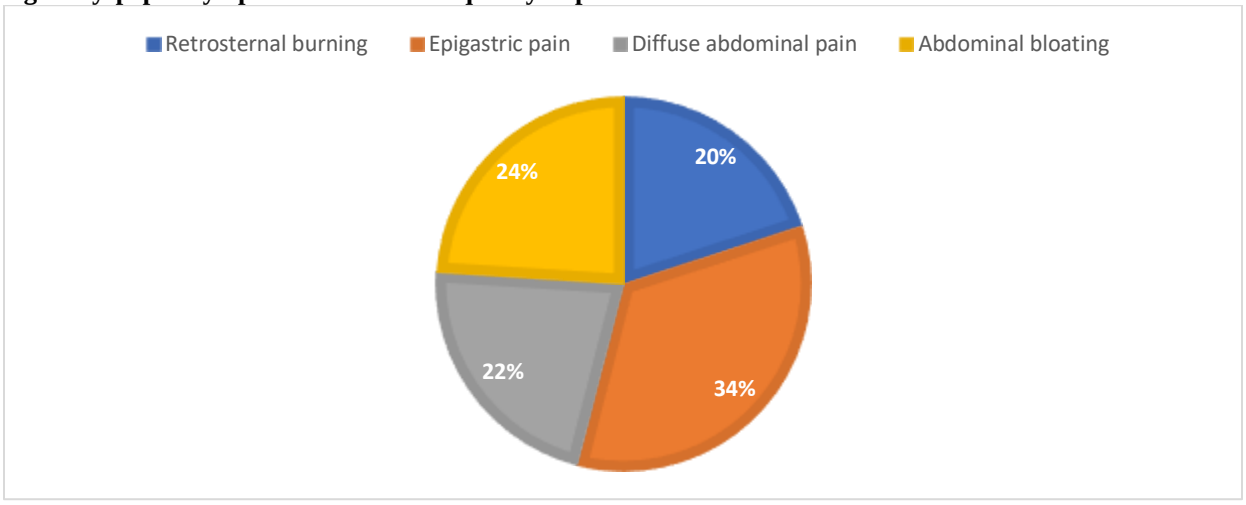

Table 2: Endoscopic findings and H. pylori patients

Endoscopic findings	Number of cases	H. pylori positive (out of number of cases)
Normal	6	4
Reflux esophagitis	5	2
Gastritis	4	3
Gastric ulcer	23	18
Duodenal ulcer	10	6
Suspected malignancy	2	1
Total	50	34

DISCUSSION:

In the present study, a total of 50 patients were included in the study after obtaining an informed written consent. The number of male patients was more in the study group. The mean age was 45.36 years. It was seen that epigastric pain was the most common symptom (34%) and retrosternal burning was least common (20%). The number of H. Pylori patients was 34. The most common endoscopic finding was gastric ulcer (n=23) and the number of H. Pylori patients with gastric ulcer was 18. Second common finding was duodenal ulcer, which was seen in 10 patients, of which 6 were H. pylori positive. The results were compared with previous studies and were found to be consistent. Oling M et al [7] determined the prevalence of H. pylori in patients presenting with dyspepsia, and the mean time from onset of symptoms to performing an endoscopy examination. In total, 111 participants' data were analyzed. The F:M ratio was 1:1.4, mean age 43 years (SD = 16). The prevalence of H. pylori gastritis was 36%. They concluded that the burden of H. pylori infection in patients with dyspepsia was high. Ayoola AE et al [8] determined the prevalence of H. pylori among patients with dyspepsia. Four hundred and eighty-eight patients with dyspepsia were consecutively examined using the UGI endoscopy during a 4-year period. Overall, H. pylori were detected in 268 (54.9%) of the gastric biopsies from 488 patients (322 males and 166 females, aged 13-90 years). Helicobacter pylori infection was present in 140 (60.1%) of 253 patients with chronic gastritis diagnosed by endoscopy and in 49 (62.8%) of 78 patients with duodenal ulcers (DU). They concluded that the rate of H. pylori in patients was at the lower end of the range (50-80%), which was previously reported among largely urban populations in Saudi Arabia suggests differences in the prevalence of H. pylori-infections between urbanized and rural populations.

Nafeeza MI et al[9] determined the prevalence of H. pylori in functional dyspepsia among the three main races in Malaysia. Gastric antral biopsies from 233 (98 males, 135 females; age range: 17–75 years, mean age 39.5 years) patients attending the Universiti Kebangsaan Malaysia (UKM) gastroenterology clinic were assessed for the presence of H. pylori by culture and histology. About a third of the cases (79 of 233 (34%); 34 males, 45 females; mean age 42.6 yrs) were positive for H. pylori. The presence of H. pylori was always associated with antral gastritis. They concluded that the prevalence of H. pylori in patients with functional dyspepsia differs considerably with respect to ethnic groups. Faintuch JJ et al [10] assessed the endoscopic findings of the syndrome, in an outpatient screening clinic of a tertiary hospital in São Paulo. Three hundred and six patients were included and 282 were analyzed in the study. The mean age was 44 years and women comprised 65% of the sample. Forty-five percent of the patients reported alarm symptoms. Functional dyspepsia was found in 66% of the patients (20% with normal endoscopy results and 46% with gastritis), 18% had GERD and 13% had ulcers (duodenal in 9% and gastric in 4%). Four cases of gastric adenocarcinoma were identified (1.4%), one without alarm characteristics, 1 case of adenocarcinoma of the distal esophagus and 1 case of gastric lymphoma. The prevalence of H. pylori was 54% and infection, age and smoking status were associated with organic dyspepsia. The age of 48 years was indicative of alarm signs. Agarwal PK et al [11] studied the prevalence of H. pylori infection in upper gastrointestinal (GI) tract disorders (dyspepsia) patients. Patients presenting with dyspeptic symptoms were subjected to serological investigation and upper GI endoscopy, histopathological examination, and rapid urease test of specimen. H. pylori infection was diagnosed in 85% of patients. There was no significant difference in sex- and age-related distribution (<50 years' age group and >50 years' age group) of H. pylori infection. However, association of H. pylori infection was positive in 83.3% (45) of patients with endoscopic abnormalities (54).

CONCLUSION:

Within the limitations of the present study, it can be concluded that H. pylori infection is quite common in patients with dyspeptic symptoms. It is advisable to get an endoscopy for the patients reporting with dyspeptic symptoms as there is a high rate of positive finding among these patients.

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