

To Study The Etiology And Symptoms Associated With Dyspepsia In A Tertiary Care Hospital

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Abstract: Background & objectives: dyspepsia is a global concern and a common disorder affecting many peoples. Our objective is to study the etiology and symptoms associated with Dyspepsia in a tertiary care hospital. Method: Total 203 patients with dyspepsia participated in the study and analyzed for H. pylori infection and different etiology and symptoms associated with dyspepsia along with endoscopic diagnosis. Result: Most of the patients were from age group of 18-38 years and minimum from 49-60 yrs. Out of 203 patients 36 was found positive for H. pylori infection. 104 males and 99 females participated in the study. The males were found to be more infected with H.pylori than female. Functional dyspepsia (48%)& GERD(36%) were found more prevalent than other etiological factors. Most prominent symptoms were early satiety, regurgitation, and epigastric pain. Conclusion: Adult age group, male gender and functional dyspepsia with H. pylori infection were found to be most predominant in these study populations. [Abhyudaya V NJIRM 2016; 7(6): 97-100]

Key Words: etiological factors, dyspepsia, H. pylori, symptoms

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Introduction: Dyspepsia is a common disorder that can present many clinical dilemmas in patient management.¹ It refers to upper abdominal pain or discomfort, which is thought by the physician to arise in the upper gastrointestinal tract.² The prevalence of dyspepsia ranges from 20%-30% in the general population.³ The pathogenesis of functional dyspepsia is unknown. Many pathogenic mechanisms have been proposed, like disturbance in gastric acid secretion, disordered gastric motility, abnormalities of electrical control activity, abnormalities of perception, psychological disturbances, environmental factors and Helicobacter pylori (H. pylori).⁴

The strong association of H. pylori with dyspepsia has caused a major paradigm shift in patients' management.⁵ Dyspepsia is defined as having one or more symptoms of epigastric pain, burning, postprandial fullness, or early satiety.⁶ Symptoms related to the dyspepsia although not life-threatening, the symptoms are long-lasting.⁷ Symptoms interfere with daily activities and have a significant impact upon the quality of life and increased medical costs.⁸ In patients with dyspepsia who are investigated, there are 5 major causes: gastroesophageal reflux diseases (GERD), medications (NSAID induced), functional dyspepsia (FD), chronic peptic ulcer disease (PUD), and malignancy.⁹ The study is carried out to know the etiological and causative factors associated with dyspepsia in the tertiary care hospital.

Methods: The study was conducted at Sri Adichunchanagiri Hospital and Research Centre, Bellur from August 2002 to February 2004 on total 203 cases. Patients from medicine OPD with various dyspeptic symptoms were included, upper GI endoscopy was done on willing subjects and biopsy material tested for H. pylori infection and screened for other organic causes of dyspepsia.

The patients were included based on following criteria

- Patients with dyspeptic symptoms having score >5
- Duration of symptoms >1 month
- Drug induced dyspepsia
- Patients with other systemic illness eg. Diabetes mellitus
- Patients with peptic ulcer diseases
- Age between 18-60 years
- Physical examination may be normal or abnormal
- Patients were excluded if age is below 18 and above 60 years, with history of jaundice and with history of alcohol abuse and smoking.

Endoscopic Assessment: All the patients gave informed consent and the procedure was elective. Clinical symptoms were assessed in a systematic manner. The endoscopic evaluation of patients was performed using a sterile video gastroscope. No sedation was given patients; about 10% xylocine solution was sprayed in the oropharynx and over posterior pharyngeal wall few minutes before the procedure. The examination was done in left lateral

position with thighs and knee flexed. The tip of the endoscope was placed at the cricopharyngeal sphincter of the oesophagus and patient was encouraged to swallow while gentle pressure was exerted. The endoscope was then passed under direct vision into stomach. The instrument tip is retro fixed in the stomach to visualize gastric cardia, the fundus and whole of the lesser curvature. The pylorus was transverse and first and second portion of duodenum was visualized. The site from where biopsy pieces were taken; duodenum, antrum, fundus, cardia and esophagus. The biopsy samples were subject to rapid urease test.

Helicobacter Pylori Status: All the biopsies samples were tested using a rapid urease test (Staar tech Ltd., Calcutta) which was observed for colour change. Biopsies were placed immediately in the solution present in the kit and in the presence of H pylori the solution from the kit which turned from yellow to pink. Where colour change did not occur immediately the solution was observed up to 24 hours later. If no colour change took place at 24 hours, the kit was discarded and the result recorded as negative for H. pylori. **Statistical analysis:** all the data were analyzed using descriptive statistics.

Result:

Table1- Age Range of Patients with H.Pylori Positive Status

No	Age	No. of Patient	%	H.pylori positive	%
1	18-28	63	31.5	12	19
2	29-38	66	33	11	16.7
3	39-48	40	20	7	17.5
4	49-60	34	17	6	17.6

Total 203 patients participated in the study out of which most of the patients were from age group of 18-38 years and minimum from 49-60 yrs. H.pylori infection was present in 12 cases out of 63 patients in the age group of 18-28 and found to be maximum.

Out of 203 patients with dyspepsia, 104 were males and 99 were females. The males were found to be more infected with H.pylori than female in this study.

Out of 203 dyspeptic patients, 96(48%) patients had functional dyspepsia, 73 (36%) patients had GERD, 24 (12%) patients had NSAID induced dyspepsia, eight (4%) patients were with duodenal ulcer and two (1%) patients had Candida oesophagitis.

Fig-1 Showing the gender of patients and H.pylori status

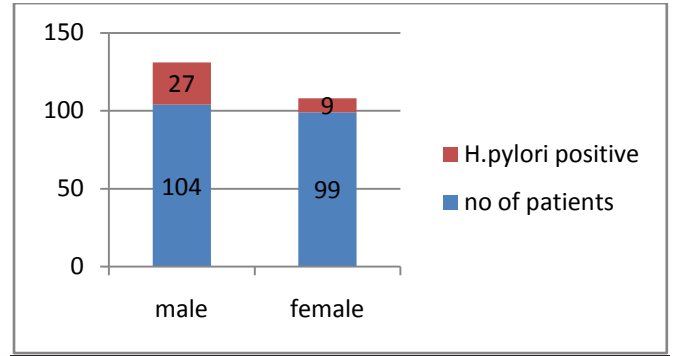


Fig-2 Showing different etiology involved

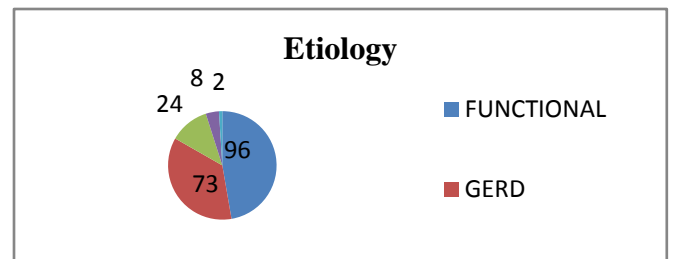
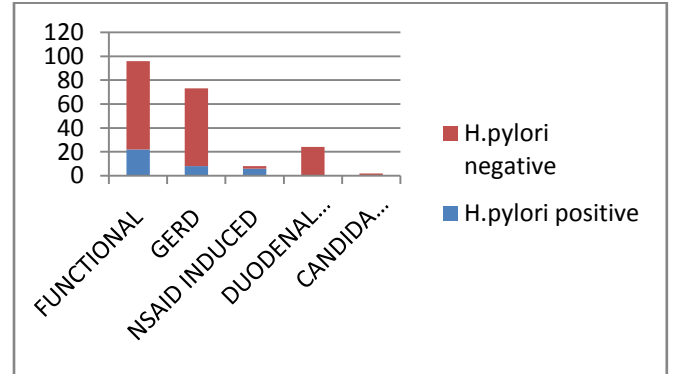
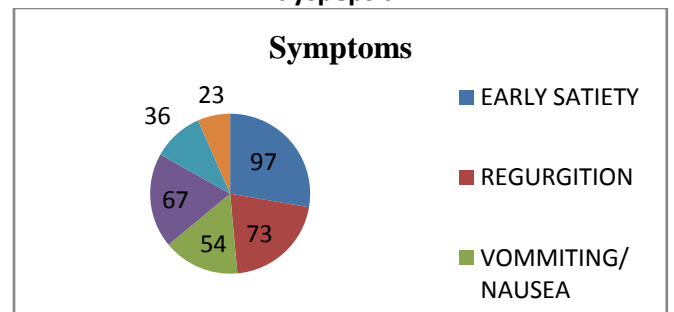


Fig-3 Showing H.pylori status with different etiology



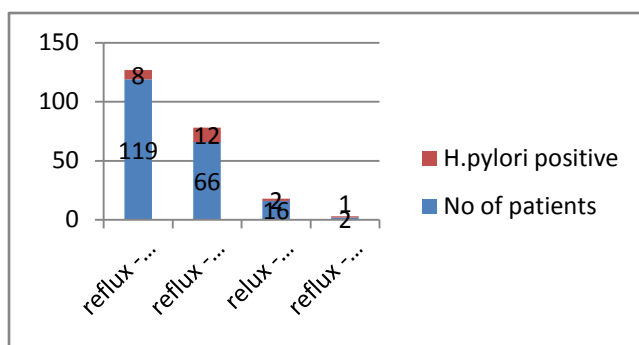
Out of 36 patients with urease test positive for H. pylori, 22 patients had functional dyspepsia, 8 patients had GERD and 6 patients had duodenal ulcer. While NSAID induced dyspepsia and candida oesophagitis induced dyspepsia has H. pylori negative urease test.

Fig- 4 Showing different symptoms related to dyspepsia



Out of 203 patients with dyspepsia the most prominent symptoms were early satiety, regurgitation, and epigastric pain followed by nausea, vomiting and anorexia.

Fig-5- Showing endoscopic diagnosis and urease test results in patients



The above table shows number of cases and their stratification according to their endoscopic diagnosis and urease test result in various groups of patients. Number of patients with reflux esophagitis are 119, out of which 8 showed urease test positivity. 66 patients had reflux esophagitis with pyloric enteritis out of which 12 showed urease test positive. Out 16 patients with reflux esophagitis and duodinitis, 2 were urease test positive. Out of 2 reflux esophagitis and hiatus hernia, 1 had urease test positive other 13 urease test positive patients. H pylori was present in ten from gastric antrum and three samples from esophagus.

Discussion: Dyspepsia is a common clinical problem seen by both primary care physicians and gastroenterologists. Initial evaluation should focus on the identification and treatment of potential causes of symptoms such as gastroesophageal reflux disease (GERD), peptic ulcer disease, and medication side effects but also on recognizing those at risk for more serious conditions such as gastric cancer.⁹

In this study majority of the patients were found in age group of 18-38 years (65%) and as the age advanced the prevalence of dyspepsia decreased. This finding which indicated a decline in the prevalence of dyspepsia symptoms with age was consistent with our findings.^{10,11} Dyspepsia is more common in males as compared to females among 203 patients selected on the basis of symptoms. These findings were consistent with the findings of Kaoreet al.¹² which showed higher prevalence of dyspepsia in male

gender. Many studies had found that a nearly equal gender distribution while complaints of severe pain were more frequent among female patients.^{13,14} H.pylori was found to be more prevalent in males than in women participated in the study. Our findings was contradictory to the findings of Alazmi et al(2010)¹⁵ who found H. pylori was significantly more prevalent among young females than males. Another study found Norway that the distribution of H. pylori infection with regard to dyspepsia in men and women was uneven.¹⁶

Maximum no of patients with dyspepsia found in the group of functional dyspepsia (FD) (48%). our study correlated with other studies that 50% and 20-70% of patients were with functional dyspepsia respectively.^{17,18} Several pathophysiologic mechanisms can underlie functional dyspeptic symptoms including: delayed gastric emptying, impaired gastric accommodation to a meal, hypersensitivity to gastric distention, H. pylori infection, altered duodenal response to lipids or acid, abnormal duodenojejunal motility, or central nervous system dysfunction.¹⁹

GERD, defined as symptoms or tissue damage that result from reflux of gastric contents into the esophagus.²⁰ In our study GERD (36%) noted as second most prevalent cause after FD. Medications are another frequent and often overlooked cause of dyspepsia. In our study NSAID induced dyspepsia found in 12% similar results were quoted by Tait C, et al (1996)²¹. H. pylori infection was strongly associated with duodenal ulcer.²² In this study duodenal ulcer was found in 3% of dyspeptic patients. Ulcers are found in approximately 10% of patients undergoing evaluation for dyspepsia.²³

Symptoms observed in our study mainly represent early satiety, regurgitation, and epigastric pain followed by nausea, vomiting and anorexia which was similar to symptoms noted earlier. Most of the patient's endoscopic findings mainly follow in reflux esophagitis, reflux esophagitis with pyloric enteritis group.

Conclusion: Dyspepsia is a global concern, clinical factors have clear importance and potential impact on patient's management. Adult age group, male gender and functional dyspepsia with H. pylori infection were found to be most predominant in this study populations.

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Conflict of interest: None
Funding: None
Cite this Article as: Abhyudaya V, Deepika V, Pooja B, Akhil B To Study The Etiology And Symptoms Associated With Dyspepsia In A Tertiary Care Hospital. <i>Natl J Integr Res Med</i> 2016; 7(6): Page no: 97-100