



Endoscopic and Demographic features in H.Pylori positive Patients.

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Abstract:

Objective: The main aim of this study was to analyze the endoscopic and demographic features in H.Pylori patients.

Place and Duration of study: This study was carried out in a duration of 10 months from February 2019 to November 2019 in medical department of Mayo hospital Lahore.

Study type: It is a cross sectional type of study.

Sampling technique: Non probability sampling technique.

Material and Methods: A total of 100 patients were selected for this study. Both males and females were selected randomly. Patients with past history of aRa-H pylori treatment were excluded from this study. Past history of NSAID use over last three months was asked from the patients. Patients with positive history of NSAID or aspirin use over for 3 days during this period were taken as NSAID users. While performing endoscopy, eight samples were collected from all these patients using proper protocols. Serum samples were taken carefully and sent to a reliable laboratory for detection of H.Pylori IgG antibodies using ELISA. Histology and culture sensitivity, rapid urease test, demographic data, past history of NSAID use, serum anti H.Pylori IgG antibodies and number size and location of ulcers. All the data was collected and analyzed using SPSS version 20.

Results: A total of 100 patients were selected for this study and their data was carefully collected and analyzed. Among these 100 patients, H.Pylori was found in 67 patients and NSAID use was seen in 33 patients. Clinical, demographic and endoscopic data of patients with duodenal ulcers was collected. Positive smoking history was seen in around 22% of the patients who were using NSAIDs and were positive for H.Pylori and this is significantly higher than patients of H.Pylori alone. No significant difference in GI bleeding was seen among two groups.

Conclusion: It can be concluded that frequency of gastric ulcers is much higher than duodenal ulcers. Older people are more prone to develop gastric ulcers following H.Pylori infection or NSAIDs use while among young people non-NSAID non-H.Pylori ulcers were more common.

Introduction: The correlation between gastritis and infectious agents is known to mankind for a long time. However, it was not until late 1980s when the discovery of H.Pylori was made. Since then apart from causing gastritis, lot of research has been done showing that H.Pylori is responsible for many gastric disorders including gastric carcinoma, peptic ulcer disease and lymphoma. H.Pylori is a gram negative bacteria having spiral shape and characterized by catalase, urease and oxidase activity.

For the bacteria to survive, urease activity is essential and the same urease is crucial for the diagnosis of H.Pylori. Infection rate caused by H.Pylori in childhood is less in developed countries, but this rate rises with the increasing age reaching upto 10 percent in adulthood and up to 50 percent in people with age above 60 years. Family history of H.Pylori, overcrowding, low socioeconomic status, smoking and drinking unfiltered water have been diagnosed as the increasing cause of H.Pylori related infections.

Now it has been universally accepted that in the absence of NSAIDs use, H.Pylori is the main cause of duodenal ulcers. But conclusions seen in multiple recent articles have created doubt about this. Patients with a brief history of duodenal ulcers often are without previous history of H.Pylori related infection (diagnosis made with endoscopy showing no evidence of chronic infection) in contrast with patients having a long history. The difficulty in understanding that whether H.Pylori is responsible for causing infections has forced us to present our own report. Use of NSAIDs and infection with H.Pylori are the main causes leading to ulcers but it has not been recognized completely yet. Infection with H.Pylori is a major cause for peptic ulcer disease and is always linked with chronic gastritis but only 10-15% of the patients develop definite ulcers and this cause is not fully understood.

Keywords : Endoscopy, H.Pylori



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Table01.Demographic, clinical and endoscopic data of patients with GU in each group.

Variables	Group A (HP positive)	Group B (NSAIDs users)
Age (years)	57.7±16.18	53.23±15.94
Male gender (%)	60.3	47
Smoking (%)	6.4	13.0
GIB (%)	17	16
Number of ulcers (%)		
I	76.7	80.4
II	9.5	6.5
III	13.8	13
Place of ulcer (%)		
Proximal	11.2	8.7
Body	28.4	23.9
Antrum	54.3	56.5
multiple	6.0	10.9

Table 02: Demographic, clinical and endoscopic features of patients in each group

Variables	HP positive	NSAID users
Age (year)	45.11±16.66	(n=80) 46.39±17.12
Male gender (%)	59.9	55.6
Smoking (%)	12.3	10.0
Number of ulcers I	79.4	77.6
II	9.2	15.8
III	11.4	6.6
Place of Ulcer		



Variables	HP positive	NSAID users
Anterior	45.7	48.7
Posterior	7.5	10.3
Upper	16.2	15.4
Lower	16.8	17.9
Different	13.9	7.7

Discussion: *Helicobacter Pylori* is a gram negative bacteria and is usually seen in epithelial cells of GI tract. Around 90% of all the DU are caused by this and 70%-90% of gastric ulcers are also caused by this. Patients with low socioeconomic status are more prone to develop the disease and even more common during the childhood. *H.Pylori* has wide range of virulent factors due to which it attaches itself to gastric mucosa and cause inflammation which results in achlorhydria or hypochlorhydria causing gastric ulcers.

Epidemiological studies have shown that in developing countries infection is more common in early age as compare to developed countries where higher infection rate is seen in adult age usually after 60 years. Mean age of the patients with gastro esophageal reflux disease in our study is different from the ones in *H.Pylori* infected people and with people having no infection. People with *H.Pylori* infection had less age as compared to the ones having no infection showing early procurement of infection. Findings of our studies are closer to the studies done in under developed countries.

Ethnicity had no impact on the infection rate as seen in both the groups of our study. This is in contrast with the study of Everhart et al in which he showed that Hispanics and Blacks are more prone to infection with *H.Pylori*. It was assumed by the authors that ethnic difference could be explained by the different socioeconomic status.

Different literature has shown different relation between *H.Pylori* infection and cigarette smoking. 0.82% increased chances of infection with *H.Pylori* was reported by Ogihara and coworkers in comparison with people who never smoked. This connection was strong in young subjects. It was postulated that increased gastric acid production caused by smoking could be a major factor in *H.Pylori* infections.

Conclusion: It can be concluded that frequency of gastric ulcers is much higher than duodenal ulcers. Older people are more prone to develop gastric ulcers following *H.Pylori* infection or NSAIDs use while among young people non-NSAID non-*H.Pylori* ulcers were more common.

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