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PREVALENCE OF HELICOBACTER PYLORI INFECTION IN PATIENTS DONE WITH UPPER GI ENDOSCOPY

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Abstract:

Objective: *To determine the H. pylori infection frequency in patients done with upper GI endoscopy.*

Study Design: *An Observational Study.*

Place and Duration: *In the Gastroenterology Department of Services Hospital, Lahore for one year duration from September 2017 to September 2018.*

Methods: *After written approval, patients who met the participation criteria were recorded. By the ethics committee, study was approved. The H. pylori infection detection was confirmed by samples and its histopathological examination which were taken during upper gastrointestinal endoscopy. The absence or presence of gastritis was also noted. Olympus gastro-video GIF 140 coverage was the tool for the operation.*

Results: *165 total subjects were included in the analysis, male were 82 and female were 83, mean age was 41.04 ± 15.9 and 35.9 ± 11.5, and 43 (52.43%) male were positive and 39 (47.5%) were negative for H.Pylori. In 38 (45.78%)of females were positive and 45 (54.2%) negative. Compared to gender differences, there was a slightly higher prevalence in men. Antral gastritis has a more frequent relationship between men and women with H. pylori infection in both sexes. The gastric carcinoma was noted in five patients (5%) without H. pylori infection.*

Conclusion: *Helicobacter pylori infection is common in men with gastritis and in women with little more prevalence in men.*

Key words: *Upper gastrointestinal endoscopy (OGD), Antral gastritis, Helicobacter pylori (H. pylori).*

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INTRODUCTION:

Helicobacter Pylori is the most common bacterial pathogens. It is a highly motile, curved, small, Gram negative bacillus that colonizes the human stomach mucous layer only[1]. It is the main reason of peptic ulcer disease development and the main gastric cancer risk factor. The H. pylori infection risk factors are residence or birth in a under developed country, less education, low socioeconomic status, poor health conditions, home agglomeration, dirty food and water, stomach contents regurgitations[2-3]. An individual infected with intubation tubes is not properly cleaned. The H. pylori prevalence is influenced by the geographical region[4]. In developing countries, H. pylori positive is noted in 80% of population. It is much common in elderly and adults than in children and adolescents[5]. Infection also has an inverse relationship to socioeconomic conditions, especially to childhood living conditions. Although H. pylori colonization is not a disease of its own, it increases the developing of some upper gastrointestinal diseases risk, some peptic ulcers and especially gastric carcinoma due to environmental factors (NSAIDs, alcohol intake or smoking)[6]. The host factors (immune responses, genetic polymorphism), virulence factor of H. pylori as will result in decrease production of acid leading to stomach cancer or gastric ulcer[7]. Intestinal metaplasia with pan gastritis, atrophy and Chronic inflammation respectively are gastritis pattern, or may result in an increase in the acid production of duodenal ulcer with gastric metaplasia[8]. H, Pylori infection can be diagnosed by non-invasive or invasive procedures. The upper gastrointestinal endoscopy (OGD) included in Invasive procedures, OGD is beneficial in H. pylori detection by histology, urease or culture tests, each of which has special benefits and seriousness, but their weight according to criminals Visualization, photographing, ultrasound biopsies are an important area of diagnosis[9]. All this procedure provides helpful information to physicians about atrophic, metaplastic or inflammatory lesions of the stomach in patients with negative and positive for H. pylori[10].

MATERIALS AND METHODS:

This Observational Study was held in the Gastroenterology Department of services Hospital Lahore for one-year duration from September 2017 to September 2018.

Patients from both genders with dyspepsia history were selected for the study. Patients with previous peptic ulcer disease (PUD) history, patients with chronic liver disease and lactating pregnant women were not included in the study. Children under the age of 14 and adults over 80 are excluded. Endoscopy was done after written confirmation. A 10% aerosol xylocain was used for oral anesthesia with the mucosa. The GIF 140 Olympus Gastro-projector was used for processing. Injection midazolam was used in patients selected for sedation. Anthrax mucosa and body mucosa samples were taken with medium size forceps. Samples were included in paraffin sections were stained using Giemsa methods and hematoxylin-eosin. Data were entered using SPSS 18.0 software and using descriptive statistics analysis was performed. Charts were made using Microsoft Excel software.

RESULTS:

165 total subjects were included in the analysis, male were 82 and female were 83, mean age was 41.04 ± 15.9 and 35.9 ± 11.5, and 43 (52.43%) male were positive and 39 (47.5%) were negative for H.Pylori. In 38 (45.78%) of females were positive and 45 (54.2%) negative for H.Pylori infection. When gender differences were compared, it was observed that the H. pylori infection prevalence was higher slightly in men. Antral gastritis has a same relation in both males and females.

TABLE I: BASE LINE DEMOGRAPHIC CHARACTERISTICS OF PATIENTS (n=165)

Parameter	Males (n=82)	Females (n=83)
Mean age ±SEM	41.04±15.9	35.9±11.5
H. pylori Positive Negative	43(52.43%) 39(47.5%)	38(45.78%) 45(54.2%)
H. Pylori + gastritis H. Pylori –ve + gastritis H. Pylori –ve gastric carcinoma	43(52.4%) 39(42.8%) 4 (4.87%)	38(45.78%) 44(53.01%) 1(1.2%)

The gastric carcinoma was noted in five patients (5%) without H. pylori infection. (Table I).

DISCUSSION:

Patients with upper GI symptoms are more common with dyspepsia. These patients should never be monitored only by noninvasive research method, but also by applying OGD to the use of classical histological evaluation[11]. OGD is a gold standard test for H. pylori infection diagnosis and other lesions of the upper GIT. peptic ulcer disease is the main reasons for this. Endoscopy provides useful information for the practitioner in the presence of a practical ulcer[12]. In the case of a normal endoscopic finding, additional treatment depends on the histological finding and the condition of H. pylori[13]. Persistent positivity of H. pylori is always associated with a possible recurrence of peptic ulcer. In the H. pylori absence, the gastric mucosa is normal and no ulcers are detected, the treatment of these patients should indicate the emergence of other possible causes of complaints[14]. In our analysis, the presence of gastritis when OGD was performed was a frequent association with H. pylori infection. In our analysis, it was observed that gender had some relation with the rate of H. pylori infection and men were more infected with H. pylori. The analysis shows Helicobacter pylori infection result in dyspepsia, but visibly this relationship is controversial without ulceration in endoscopy[15]. However, various analysis have shown a higher Helicobacter pylori prevalence in normal mucosal findings on endoscopy. They were just dyspeptic. Our study results are consistent and comparable with local and international data. The H. pylori infection prevalence has decreased in recent years, especially in our region. The awareness of living standards of urban population may be due to education and development.

CONCLUSION:

In men, Helicobacter pylori infection is mostly found with antral gastritis and in women with slightly higher prevalence in men.

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