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Research Article

**A COMPARATIVE STUDY TO KNOW THE PREVALENCE
OF HELICOBACTER PYLORI INFECTION AMONG
MALES AND FEMALES**¹Dr. Zain Nayyer, ²Dr. Kashif Abdullah, ³Dr. Mariam Rafiq¹Sargodha Medical College, Sargodha, Pakistan²THQ Hospital Sharaqpur, Sheikhpura Pakistan³Punjab Medical College, Faisalabad, Pakistan**Abstract:****Objective:** To compare the prevalence of *H. pylori* infection in men and women.**Study design:** A comparative study.**Place and Duration of the Study:** In the Gastroenterology Department, Jinnah Hospital, Lahore for one year duration from September 2016 to September 2017.**Methods:** The study included serum samples, stool samples and gastric biopsies and 100 patients with *H. pylori* infection including males and females.**Results:** Of the 100 gastric biopsy cases, 90 (52%) were male and 38 (38%) had *H. pylori* bacillus positive. Blood samples were taken from 100 patients for analysis, and 68 were 38 (38%) male and 30 (30%) female. Fresh stool samples were detected by immunological chromatography method and 28 (28%) male and 20 (20%) female were positive. Fecal antigen sensitivity was 52.7% and specificity was 90%. The study shows that *H. pylori* infection is higher in males than females.**Conclusion:** The positivity of *H. pylori* is very important and it shows *H. pylori* in male patients more than female patients. Further study is required to find the cause. Stool antigen AND Serological tests are recommended as the best tools for eradication therapy and diagnosis by the primary care physician, patients who do not want to do endoscopy and the purpose of mass screening.**Key words:** *H. pylori*, stool antigen, gender.**Corresponding author:****Dr. Zain Nayyer,**

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INTRODUCTION:

Helicobacter pylori infection is found in minimum half of the Global population, and most infected individuals (> 70%) are asymptomatic, whereas only 30% are symptomatic. H. pylori infection causes the gastric cancer development and has a significant correlation with the prevalence of H. pylori antibodies. H. pylori causes chronic gastritis, peptic ulcer and stomach cancer. There is a six-fold higher risk of gastric cancer in the population with H. pylori infection than in the non-stomach infection population. In addition, it categorizes the role of H. pylori as a carcinogen group due to evidence of their importance in the pathogenesis of gastrointestinal mucosa-associated lymphoma and possibly gastric cancer. Duodenal and gastric ulcer and gastric adenocarcinoma and MALT lymphoma (mucosal-related lymphoid tissue) are associated with an H. pylori infection. Infection acquired in adulthood is less common and the estimated annual incidence is only 0.3-0.5% and in 51 patients (39 males and 11 females) the prevalence of H. pylori was determined. The incidence of H. pylori infection was 73.5% under the age of 40 and 55.3% over the age of 40 years. It is the most common bacterial infection that causes gastritis and gastric neoplasms in the world. There are various noninvasive and invasive methods to detect H. pylori infection. Invasive methods include biopsy specimen culture, histological examination and urease test. Non-existing invasive methods include the carbon isotope derivatives of urea and the urea breath test, which requires the patient to be

swallowed by serological detection of serum antibodies to H. pylori. H. pylori has a pylori of antibodies in the serum antibody patient as a reliable indicator of a H. pylori infection that causes a specific serological response in a infected person and a significant correlation with the prevalence of H is determined for a useful tool that controls the effectiveness of antimicrobial therapy. This study compares the sensitivity of the three tests used in general, ie endoscopic histopathology, HpSA and H. pylori evaluates the usefulness of IgG antibodies and H. pylori in patients and advises after time factor consider the profitability, sensitivity and specificity.

MATERIALS AND METHODS:

This comparative study was held in the Gastroenterology Department, Jinnah Hospital, Lahore for one year duration from September 2016 to Seotember2017. Hundreds of patients, men and women with H. pylori infection, were included in this study for different techniques such as endoscopic gastric biopsy, ELISA method and rapid detection of immune chromatographic analysis of H. pylori antigen. An example of a stool from doctors and surgery, and research laboratory. Patients with suspected H. pylori were included in the study in all age groups and in both of them. Patients with NSAIDs due to H / O and stomach biopsies with autolithic changes were excluded from the study.

RESULTS:

Details of the results are given in Tables 1, 2 and 3.

Table 1: Results of gastric biopsies related to sex.

Gastric biopsies	Male	Female	Total
Positive	52(52 %)	38(38%)	90(90%)
Negative	04(04%)	06(06%)	10(10%)

Stool antigen: fresh stool samples from 100 patients were collected in a sterile bottle.

Table 2: Serum *H. pylori* antibodies related to sex.

H. pylori stool antigen	Male	Female	Total
Positive	38(38%)	30(30%)	68(68%)
Negative	18(18%)	14(14%)	32(32%)

H. pylori antigen was detected by immunoassay method and positive in 48 (48%) cases, H. pylori fecal antigen positive in 28 patients (58.3%) and positive in 20 patients (58.3%). 41.7% of women. Fecal antigen sensitivity values were 52.74% and specificity was 90%.

Table 3: *H. pylori* stool antigen test related to sex.

H. pylori stool antigen	Male	Female	Total
Positive	28(28%)	20(20%)	48(48%)
Negative	28(28%)	24(24%)	52(52%)

DISCUSSION:

In the last 52 years, endoscopy has been widely used in the diagnosis of upper gastrointestinal ulcers. Ideally, culture and biopsy are considered the gold standard method for the diagnosis of *H. pylori* infection. Of the 100 cases, 90 (90%) had *H. pylori*, 10 (10%) had negative, 90 had *H. pylori*, 52 (52%) male and 38 (38%) were women. In the studies conducted by TZeng¹⁴, 58 (52.2%) males and 53 (47.7%) females. In the Qureshi study, 72 (90%) of the *H. pylori* 48 were female and 15 (33.3%) were male. The prevalence of *H. pylori* was 70.3% in girls and 74.0% in boys while working in the school population¹⁶. All of these studies, including this study, showed more than *H. pylori* in male patients. However, Malik¹⁷, 63 cases, 31 men and 32 women showed in his study.

CONCLUSION:

The positivity of *H. pylori* is very important and it shows *H. pylori* in male patients more than female patients. Further study is required to find the cause. Stool antigen AND Serological tests are recommended as the best tools for eradication therapy and diagnosis by the primary care physician, patients who do not want to do endoscopy and the purpose of mass screening.

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