PREVALENCE OF H. PYLORI INFECTION AMONG PATIENTS PRESENTING IN OUTDOOR DEPARTMENT

AUTHORS:
1. DR. AIMEN FATIMA, CMH LAHORE MEDICAL COLLEGE
2. DR. RUKHSAR NASEER, JINNAH HOSPITAL LAHORE
3. DR. AQSA MUNAWAR, ALLAMA IQBAL MEDICAL COLLEGE LAHORE

ABSTRACT:
Helicobacter pylori, previously known as Campylobacter pylori, is a gram-negative, microaerophilic, spiral (helical) bacterium usually found in the stomach. This cross-sectional study was conducted among the patients presenting in outdoor departments of different hospitals. Name, age, gender, history of acid peptic disease and its symptoms were noted on a predefined proforma. H. Pylori investigation tests were sent to the lab. All the data was entered and analyzed with SPSS Ver. 23.0. There were 50 patients included in this study i.e., 25 males (50%) and 25 females (50%). The mean age of the patients was 33.23±3.23 years. Out of 50 patients presenting with acid peptic disease, 23 patients had positive infection.

KEYWORD: H. PYLORI INFECTION
INTRODUCTION:

Helicobacter pylori, previously known as Campylobacter pylori, is a gram-negative, microaerophilic, spiral (helical) bacterium usually found in the stomach. Its helical shape (from which the genus name, helicobacter, derives) is thought to have evolved in order to penetrate the mucoid lining of the stomach and thereby establish infection. The bacterium was first identified in 1982 by Australian doctors Barry Marshall and Robin Warren. H. pylori has been associated with the mucosa-associated lymphoid tissue in the stomach, esophagus, colon, rectum, or tissues around the eye (termed extranodal marginal zone B-cell lymphoma of the cited organ), and of lymphoid tissue in the stomach (termed diffuse large B-cell lymphoma).

H. pylori infection usually has no symptoms but sometimes causes gastritis (stomach inflammation) or ulcers of the stomach or first part of the small intestine. The infection is also associated with the development of certain cancers occurring in less than 20% of cases. Many investigators have suggested that H. pylori causes a wide range of other diseases (e.g. idiopathic thrombocytopenic purpura, iron deficiency anemia, atherosclerosis, Alzheimer’s disease, multiple sclerosis, coronary artery disease, periodontitis, Parkinson’s disease, Guillain–Barré syndrome, rosacea, psoriasis, chronic urticaria, spot baldness, various autoimmune skin diseases, Henoch–Schönlein purpura, low blood levels of vitamin B12, autoimmune neutropenia, the antiphospholipid syndrome, plasma cell dyscrasias, central serous chorioretinitis, open angle glaucoma, blepharitis, diabetes mellitus, the metabolic syndrome, various types of allergies, non-alcoholic fatty liver disease, non-alcoholic steatohepatitis, hepatic fibrosis, and liver cancer). The bacterial infection has also been proposed to have protective effects for its hosts against infections by other pathogens, asthma, obesity, celiac disease, inflammatory bowel disease, rhinitis, atopic dermatitis, gastroesophageal reflux disease, and esophageal cancer. However,
these deleterious and protective effects have frequently been based on correlative rather than direct relationship studies and have often been contradicted by other studies that show either the opposite or no effect on the cited disease. Therefore, many of these relationships remain controversial. Some studies suggest that H. pylori plays an important role in the natural stomach ecology, e.g. by influencing the type of bacteria that colonize the gastrointestinal tract. Other studies suggest that non-pathogenic strains of H. pylori may beneficially normalize stomach acid secretion, and regulate appetite (1-3). The purpose of this study was to see the prevalence of H. Pylori infection among the patients presenting in outdoor patients.

MATERIAL AND METHODS:
This cross-sectional study was conducted among the patients presenting in outdoor departments of different hospitals. Name, age, gender, history of acid peptic disease and its symptoms were noted on a predefined proforma. H. Pylori investigation tests were sent to the lab. All the data was entered and analyzed with SPSS Ver. 23.0. The quantitative variables were presented as mean and standard deviation. The qualitative variables were presented as frequency and percentages.

RESULTS:
There were 50 patients included in this study i.e., 25 males (50%) and 25 females (50%). The mean age of the patients was 33.23±3.23 years. Out of 50 patients presenting with acid peptic disease, 23 patients had positive infection.

DISCUSSION:
Colonization with H. pylori is not a disease in and of itself, but a condition associated with a number of disorders of the upper gastrointestinal tract. Testing for H. pylori is not routinely recommended. Testing is recommended if peptic ulcer disease or low-grade gastric MALT lymphoma (MALToma) is present, after endoscopic resection of early gastric cancer, for first-degree
relatives with gastric cancer, and in certain cases of dyspepsia. Several methods of testing exist, including invasive and noninvasive testing methods. Noninvasive tests for H. pylori infection may be suitable and include blood antibody tests, stool antigen tests, or the carbon urea breath test (in which the patient drinks 14C – or 13C-labelled urea, which the bacterium metabolizes, producing labelled carbon dioxide that can be detected in the breath). It is not known which non-invasive test is more accurate for diagnosing a H. pylori infection, and the clinical significance of the levels obtained with these tests are not clear.

An endoscopic biopsy is an invasive means to test for H. pylori infection. Low-level infections can be missed by biopsy, so multiple samples are recommended. The most accurate method for detecting H. pylori infection is with a histological examination from two sites after endoscopic biopsy, combined with either a rapid urease test or microbial culture. Helicobacter pylori is contagious, although the exact route of transmission is not known. Person-to-person transmission by either the oral–oral or fecal–oral route is most likely. Consistent with these transmission routes, the bacteria have been isolated from feces, saliva, and dental plaque of some infected people. Findings suggest H. pylori is more easily transmitted by gastric mucus than saliva. Transmission occurs mainly within families in developed nations, yet can also be acquired from the community in developing countries. H. pylori may also be transmitted orally by means of fecal matter through the ingestion of waste-tainted water, so a hygienic environment could help decrease the risk of H. pylori infection (4-6).

REFERENCES:
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