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Research Article

**STUDY TO KNOW THE FREQUENCY OF HELICOBACTER
PYLORI INFECTION IN PERFORATED PEPTIC ULCER
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³ Medical Officer RHC 75SB Tehsil and District Sargodha**Article Received:** January 2019**Accepted:** February 2019**Published:** March 2019**Abstract:****Objective:** To evaluate the *Helicobacter pylori* infection prevalence in perforated peptic ulcer patients.**Study Design:** A Prospective Study.**Place and Duration:** In the Surgical Unit II of Services Hospital Lahore for One year duration from August 2017 to August 2018.**Methods:** All subjects were evaluated for clinical examination, laboratory investigations and history. Data for abdominal and chest radiography, anti-*H-Pylori* serum, abdominal ultrasound, histopathology and biopsy, perforation and *Helicobacter pylori* infection were determined.**Results:** Perforated peptic ulcer cases were diagnosed in 75 patients during the study period. Men (73%) are more than women (27%). Most of the patients were over 30 years of age and 44.6 years SD \pm 9.89 was the mean age. For *Helicobacter pylori*, serological test was positive in all 75 subjects; However, biopsy histopathology expose in 50 cases (66.6%) with *H. pylori*. In exploratory laparotomy, 25 (33%) patients had perforated gastric ulcer and 50 (67%) patients had perforated duodenal ulcer.**Conclusion:** The prevalence of perforated peptic ulcer on biopsy, one of the life-threatening complications of *H. pylori*, was 67% in this study.**Key Words:** Prevalence, *Helicobacter pylori*, perforated peptic ulcer.**Corresponding author:****Dr. Asma Ishfaq,**

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INTRODUCTION:

The gastric ulcer perforation incidence has decreased in recent years due to excellent medical treatment. However, when it occurs, it is a surgical emergency because the ulcer is worn out of the stomach wall and causes the stomach contents to flow into the peritoneal cavity and cause peritonitis. A high mortality rate is observed in perforated peptic ulcer if not treated. Urgent surgical treatment of this terrible complication is essential, because the higher the interval between the definitive treatment and onset of symptoms, the greater the mortality and morbidity. *H. pylori* is a gram-negative-spiral-shaped organism, 50% of the world's population are infected it. Some *H. pylori* strains are strongly associated with duodenitis, gastritis, gastric cancer and peptic ulcer. In patients with duodenal ulcer compared to gastric ulcer, *H. pylori* infection was much common ie, 60.5% versus 88.9%. The peptic ulcer disease prevalence caused by *H. pylori* infection in Pakistan is 86.1%. This study was performed to evaluate the *H. pylori* prevalence in perforated peptic ulcer.

MATERIALS AND METHODS:

This Prospective Study was held in the Surgical Unit II of Services Hospital Lahore for One year duration from August 2017 to August 2018.

Patients who were diagnosed with perforated peptic ulcer above 12 years of age in both sexes were included in this study after informed consent was obtained from local languages. History, clinical examination and demographic features were recorded for each patient. For all cases, whole blood image, blood glucose and urea, serum electrolytes and X-ray thorax; In order to detect the free gas under the diaphragm in right dome, special investigations such as ultrasound abdomen and *Helicobacter pylori*

(antibodies to *H. pylori*) and the X-ray abdomen (perpendicular / supine) to confirm the free fluid in the peritoneal cavity. A histopathological examination of the *H. pylori* revealed a biopsy from the edge of the ulcer during exploratory laprotomy. Exclusion criteria included those who had already undergone eradication therapy with *Helicobacter pylori*, traumatic perforation, malignant ulcer with perforation and those who refused to agree to join the study.

Statistical analysis: The data presented as numbers and percentages for qualitative variables were given as mean and SD \pm as quantitative variables. SPSS 17.00 version was used as statistical software.

RESULTS:

In our study, a total of 75-perforated peptic ulcer cases were identified. Of these 75 patients, male were 55 (73%) and female were 20 (27%). The 44.6 ± 9.89 (SD) was the mean age. The most common presentation features were upper abdominal/ epigastric pain 40 (53%), vomiting/ nausea 40 (53%), heartburn 35 (47%) and constipation 38 (51%). The use of NSAIDS, smoking cigarette and alcoholism were found to be 40%, 33% and 7%, respectively. On examination, general sensitivity was present in all cases, especially in the upper abdomen. Abdominal region was swollen in 57 patients (76%). Fifty-five (73%) patients had hardness and lack of bowel sounds. In descriptive laparotomy, 50 (67%) patients had perforated duodenal ulcer (first anterior part) and perforated gastric ulcer (anterior antrum) in 25 (33%) patients. The perforated duodenal ulcer size was less than 1 cm, but it exceeded 1 cm in four (5%) patients. Gastric ulcer had a size of less than 1 cm, but two patients (3%) had a size of 1.5 - 2 cm. The results of the diagnostic tests for *H. pylori* are shown in Table I.

TABLE I: DIAGNOSTIC TESTS FOR HP (n=75)

Test	Patients	Percentage
Serology	75	100%
Histology	50	67%

DISCUSSION:

The transmission of *H. pylori* takes place from person to person. For this reason, health care providers, such as gastroenterologists, health workers and those who care about people with mental health problems, are at greater risk. The results of this study showed that *H. pylori* infection was a suitable finding in Oladejo study

in which males (66%) were infected and 73% of males were infected. Kaffes, however, was more common in 8 women. The average age of our study was 44 years, and it ranged from 48 to 70 years in other studies. Several clinical studies have demonstrated the importance of *H. pylori* and smoking in the primer status of the stomach; . Although smoking and coffee

are thought to reduce the peptic ulcer disease medical treatment effectiveness, for H. pylori treatment failure, an important risk factor is smoking. Smoking also increases the likelihood of infection with H pylori, as we found only 15% of smokers who tested positive for H pylori in 41% of smokers but were positive for H pylori. Any form of tobacco use (chewing or smoking) increases the risk of carcinoma and stomach ulcers. Therefore, both H. pylori infection and smoking are risk factors for peptic acid disorders. Both Helicobacter pylori infection and non-steroidal anti-inflammatory drugs (NSAIDs) are independent risk factors for peptic ulcer disease, but the potential synergy between these factors is controversial. In patients with a history of ulcerative disease, new ulcers are expected to develop independently of NSAID use; The H2-histamine receptor antagonist reduces the recurrence rate of H. pylori-related ulcers, but is completely ineffective in the prevention of ulcers associated with NSAIDs. Therefore, detection and treatment of H. pylori infection before treatment with NSAIDs may reduce the risk of ulcers. In the presence of H. pylori infection, alcohol intake in Turkish patients has been shown to be an independent risk factor for the development of gastric / duodenal ulcers. On the other hand, Nybelen JK et al. Showed that regular but moderate alcohol consumption may facilitate the elimination of H. pylori infection.

CONCLUSION:

There is a association between H. pylori infection and peptic ulcer perforation. The control of associated risk factors such as the elimination of H-Pylori by antimicrobials and the intake of NSAIDs and steroids, smoking, alcohol intake and changes in the need for living arrangements and stress control are highly recommended.

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