ABSTRACT

BACKGROUND: The association of Helicobacter Pylori with gastritis, peptic ulcer diseases and gastric cancer is established now days. Frequency of these diseases is very high in developing countries including Pakistan.

PATIENTS AND METHODS: This was a descriptive study expanded over twelve months during which frequency of H. Pylori was noted in 50 patients suffering from dyspepsia manifestation suspecting case of acid peptic disease. The patients were collected from surgical and medical in/out patients department of civil hospital Karachi.

RESULTS: Out of 50 (n=50) patients, 30 (60 %) were male and 20 (40 %) were female with a male: female ratio of 3:2. Age range was 20- 50 years with a mean of + / - SD of 37.74 ± 7.31. All patients were of low and middle socio-economic class living in congested overcrowded areas. All patients reported with epigastric pain while 43 (86%) patients were having heartburn. Upper gastrointestinal endoscopy revealed 16 % gastric ulcer, 25 % duodenal ulcer, 40 % gastritis, 6 % Oesophagitis and 12 % normal results. Frequency of H. Pylori as per upper gastrointestinal endoscopy and ELISA Test result was 78 %.

CONCLUSION: H. Pylori plays a definite role in causing acid peptic disease. The patient presented with symptoms of peptic ulcer and therefore majority showed positive, endoscopy and ELISA test result. Various epidemiological factors like gender variations, increasing age and lower socioeconomic status were also positively associated.

KEYWORDS: Acid Peptic Disease, H. Pylori, Frequency, Epidemiology.

INTRODUCTION

Acid Peptic disease refers none specifically to disorders including reflex oesophagitis, gastritis and peptic ulcers of stomach, duodenum, jejunum and mackles diverticulum. H. Pylori, is one of independent risk factors in causation of gastritis and peptic ulcer diseases (PUD). The gastritis may lead to intestinal atrophy and metaplasia and to gastric cancer, in 1% of cases. Infection may be symptomatic or asymptomatic. It is estimated that up to 70% of infection is asymptomatic and that about two third of the world population are infected with H. Pylori making it the most widespread infection in the world. Risk factors for H. Pylori infection are birth or residence in a developing country, low socio-economic status, less education, domestic crowding, unsanitary living conditions, uncleaned food or water and exposure to gastric contents of the infected individual. Various methods for detection of H. Pylori infection, invasive (which require upper gastrointestinal endoscopy) and non invasive (includes various methods of antibody detection and urea breath test) etc. are available. The 13 C –Urea Breath Test is usually used as gold standard for H. Pylori diagnosis. Rapid Urease test (85 % - 90 % accurate) is also used as a method of choice. The aim and objective of the study was to find out during the study period, the frequency of H. Pylori, epidemiological characteristics of acid peptic disease, symptomatology observation, to carry out upper gastrointestinal endoscopy and pre decided investigations, and to do cross tabulation of positive endoscopic findings with investigations to note significance in gender class.

PATIENTS AND METHOD

This was a descriptive study conducted from September 1998 to August 1999 in Civil Hospital Karachi. Frequency of H. Pylori in 50 patients suffering from dyspeptic
manifestations suspecting case of acid peptic diseases was noted. These patients were collected from Surgical Unit no.3, Medical Unit no.1 and Medical cum Surgical out patient departments.

Patient selection was done on the criteria of various factors like age >20 years, not regular users of NSAID, non-alcoholic, free from chronic liver diseases and willing to participate in the study. Blood samples were taken for serology and later on upper gastrointestinal endoscopy was done. Tissue sample (two samples) taken for rapid Urease test and (two samples) for histology. It was decided to carry out investigations of ELISA, Immuno Chromatographic Assay (ICT), Histology and Rapid Urease Test (RUT). Data was processed using the SPSS 11.0 software and analysis was done by descriptive statistics.

RESULTS.
Total 50 (n=50) dyspeptic patients were included in the study. The age range of sample population was from 20 to 50 years with a mean ± SD of 37.74 ± 7.312 (Figure-1). Male and female ratio is given in Figure-2. Although male were in majority but none of the investigations result showed any statistical significance (P > 0.05). Total 39 patients (25 male and 14 female) in ELISA, 31 patients (21 male and 10 female) in ICT, 12 patients (09 male and 03 female) in RUT, and 19 patients (12 male and 07 female) in histology were positive. 12 patients (8 male and 4 female) were having positive result in all investigations. Based upon ELISA test and endoscopy results the frequency of H. Pylori was labeled as 78%. The socio economic class consisted of poor (44) and middle class (06) patients. Difference between these classes was significant P <0.05. Poor class patients included twenty five male and nineteen female while in middle class there were five male and one female (P<0.05). Table- 1 shows the symptoms presented by patients in ranging frequency. Result of upper gastrointestinal endoscopy is shown in Table-2. Cross tabulation analysis of positive endoscopic findings with different investigations did not yield significant result in the gender class (P >0.05) except the significance found in male, (P<0.05) in duodenal ulcer Vs Rapid Urease test and in gastric ulcer Vs histology.

DISCUSSION
This study has tried to know the information related with H. Pylori infection. During this a frequency of 40% gastritis, 26 % duodenal ulcer and 16 % gastric ulcer was detected. A study carried out in

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<tr>
<th>TABLE – 1</th>
<th>SYMPTOMATOLOGY</th>
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<tr>
<td>S. No</td>
<td>Symptoms</td>
</tr>
<tr>
<td>1</td>
<td>Epigastric Pain</td>
</tr>
<tr>
<td>2</td>
<td>Heart Burn</td>
</tr>
<tr>
<td>3</td>
<td>Nausea</td>
</tr>
<tr>
<td>4</td>
<td>Haemetemesis</td>
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<tr>
<th>TABLE – 2</th>
<th>ENDOSCOPIC FINDINGS</th>
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<tr>
<td>S. No</td>
<td>Disease</td>
</tr>
<tr>
<td>1</td>
<td>Gastric Ulcer</td>
</tr>
<tr>
<td>2</td>
<td>Duodenal Ulcer</td>
</tr>
<tr>
<td>3</td>
<td>Gastritis</td>
</tr>
<tr>
<td>4</td>
<td>Oesophagitis</td>
</tr>
<tr>
<td>5</td>
<td>Normal</td>
</tr>
<tr>
<td>6</td>
<td>Total</td>
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Pakistan found 86% of chronic gastritis, 84.6% of duodenal ulcers and 78.5% of gastric ulcers while a US based study revealed gastric ulcer 45.7% and duodenal ulcer 43.8%. In the diagnosis of *H. pylori* the biopsy based invasive methods like histology and rapid urease test offer the highest sensitivity and specificity, but in this study the ELISA test was most sensitive (78%) while studies in Pakistan and in other Pakistani studies found a frequency of 79% and 56% respectively for *H. pylori*. Histologically *H. pylori* was detected in 38% patients of 79% and 56% cases respectively for our study. The most common complaint followed by heartburn (86%) while in the sample. In this study the most common symptom was epigastric pain which may be attributed to small size of sample. In this study the most common (100%) symptom was epigastric pain followed by heartburn (86%) while in the study the most common complaint observed was epigastric pain (84%) followed by heartburn (44%).

**CONCLUSION**

Acid peptic disease appears to be common in this selected population with a relatively high frequency of gastritis. The patient presented with symptoms of peptic ulcer and therefore majority showed positive, endoscopy and ELISA test result. Age, gender and socioeconomic status positively associated with *H. pylori* infection. Since this infection causes progressive damage to gastric mucosa and results in ulcer and carcinoma so the approach should be to make a firm diagnosis.

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