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HELICOBACTER PYLORI – FINDINGS IN PATIENTS OF ACID PEPTIC DISEASE.

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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[1] *H. Pylori,* is one of independent risk factors in causation of gastritis and peptic ulcer diseases (PUD) [2,3]. The gastritis may lead to intestinal atrophy and metaplasia and to gastric cancer, in 1% of cases [4]. 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 [5]. 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 [6,7,8,,9,10] . 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 [11,12,13]. Rapid Urease test (85 % - 90 % accurate) is also used as a method of choice[14].
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 investigation 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

FIGURE-1
AGE OF THE PATIENTS

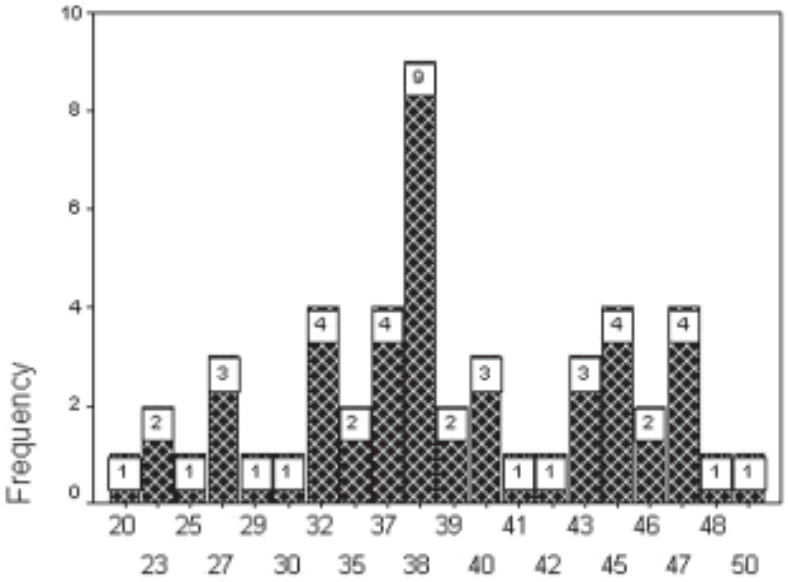


FIGURE-2
MALE: FEMALE RATIO

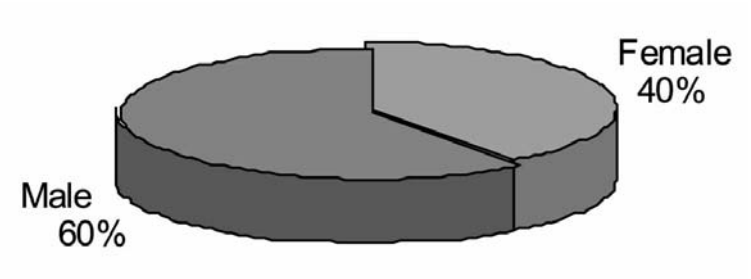


TABLE – 1
SYMPTOMATOLOGY

S. No	Symptoms	No. of Patients	Male	Female
1	Epigastric Pain	50 (100 %)	30	20
2	Heart Burn	43 (86 %)	27	16
3	Nausea	15 (30 %)	8	7
4	Haemetemesis	02 (4 %)	2	-

TABLE – 2
ENDOSCOPIC FINDINGS

S. No	Disease	No. of Patients	Male	Female
1	Gastric Ulcer	08 (16 %)	5	3
2	Duodenal Ulcer	13 (26 %)	9	4
3	Gastritis	20 (40 %)	13	7
4	Oesophagitis	03 (6 %)	3	-
5	Normal	06 (12 %)	-	6
6	Total	50 (100 %)	30	20

Pakistan [15] found 86 % cases of chronic gastritis, 84.6 % cases of duodenal ulcers and 78.5 % of gastric ulcers while a US based study [16] 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 [17] , but in this study the ELISA test was most sensitive(78 %) while studies in Pakistan [18,19] found a frequency of 79 % and 56 % cases respectively for ELISA test . Histologically *H. Pylori* in our study was detected in 38 % patients while in other Pakistani study [20] it was detected as 62.07 %. Rapid Urease test was positive in only 12 (23 %) patient, while in studies [18,19] results were 50 % and 62 % respectively. It was a new finding 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 [20] the most common complaint observed were 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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