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The Association of Helicobacter Pylori in the Various Diseases Detected Through Endoscopy - Study at a Tertiary Care Center

KEYWORDS: Dyspepsia, Helicobacter pylori, ulcer

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ABSTRACT *Acid peptic disease comprises of a wide spectrum of diseases, which cause considerable morbidity. Abdominal discomfort is the most common symptom. It is felt anywhere between the navel and the breastbone, this discomfort usually is a dull aching or burning pain, occurring when the stomach is empty, between meals or during the night. The abdominal discomfort may be briefly relieved by eating food or by taking medications. It may last for minutes to hours. The other symptoms include weight loss, poor appetite, bloating, nausea and vomiting. Infection with H. Pylori is considered to be an important factor in causing gastritis in general population. duodenal ulcer has a higher association with H.Pylori than gastric ulcer.To study the prevalence of Helicobacter pylori in patients with duodenal ulcer.*

The patients with dyspepsia who were subjected for upper gastro-intestinal endoscopy were evaluated with the biopsy specimens, one of the antral area and the pathological area, were immediately inoculated into the freshly prepared urea broth, containing phenol red as the indicator. The data collected was analyzed statistically100 cases of dyspepsia, studied clinically as per the proforma over a period of two years from July 2010 to June 2012. They were subjected for upper gastro-intestinal endoscopy under topical anesthesia, during which, 4 biopsies two each from the antrum and the pathological area were taken. Two biopsy specimens, one of the antral area and the pathological area, were immediately inoculated into the freshly prepared urea broth, containing phenol red as the indicator. Positive test for Helicobacter pylori was indicated by the change in the colour of the medium from yellow to pink or red. The other two biopsy specimen were sent for routine histopathology and special staining with Giemsa stain. The case was taken as Helicobacter pylori positive, when the histopathological examination was positive.

RESULTS: *Of the 773 cases of dyspepsia, we had 210 cases of non ulcer dyspepsia , 365 cases of gastritis,46 cases of gastric malignancy, 6 cases oesophageal cancer, 2 cases of oesophageal web, 39 cases of oesophagitis and 105 cases of duodenal ulcer. 365 cases of gastritis 126 had positivity for Helicobacter pylori and 105 cases of duodenal ulcer 98 had positivity for Helicobacter pylori.all the 225 cases which were positive by rapid urease test were also positive for H.Pylori histologically.*

CONCLUSION: *There is a higher incidence for Helicobacter pylori in duodenal ulcer 98 than in gastritis which is statistically significant <0.001.*

Background

Acid peptic disease comprises of a wide spectrum of diseases, which cause considerable morbidity. Abdominal discomfort is the most common symptom. It is felt anywhere between the navel and the breastbone, this discomfort usually is a dull aching or burning pain, occurring when the stomach is empty, between meals or during the night. The abdominal discomfort may be briefly relieved by eating food or by taking medications. It may last for minutes to hours. The other symptoms include weight loss, poor appetite, bloating, nausea and vomiting. Infection with H. Pylori is considered to be an important factor in causing gastritis in general population. duodenal ulcer has a higher association with H.Pylori than gastric ulcer. To study the prevalence of Helicobacter pylori in patients with duodenal ulcer.

AIMS & OBJECTIVES:

To study the association of Helicobacter pylori in patients with dyspepsia undergoing endoscopy especially those with duodenal ulcer .

MATERIALS & METHODS:

733 cases of dyspepsia, studied clinically as per the proforma over a period of two years from July 2010 to June 2015. They were subjected for upper gastro-intestinal endoscopy under topical anesthesia, during which patients who had an evidence of duodenal ulcer two biopsies from the pathological area were taken. Two biopsy specimens, one of the antral area and the pathological area, were immediately inoculated into the freshly prepared urea broth, containing phenol red as the indicator. Positive test for Helicobacter pylori was indicated by the change in the colour of the medium from yellow to pink or red. The other two biopsy specimen were sent for routine histopathology and special staining with Giemsa stain. The case was taken as Helicobacter pylori positive, when the histopathological examination was positive.

RESULTS:

Of the 773 cases of dyspepsia, we had 210 cases of non ulcer dyspepsia , 365 cases of gastritis,46 cases of gastric malignancy, 6 cases oesophageal cancer, 2 cases of oesophageal web, 39 cases of oesophagitis and 105 cases of duodenal ulcer

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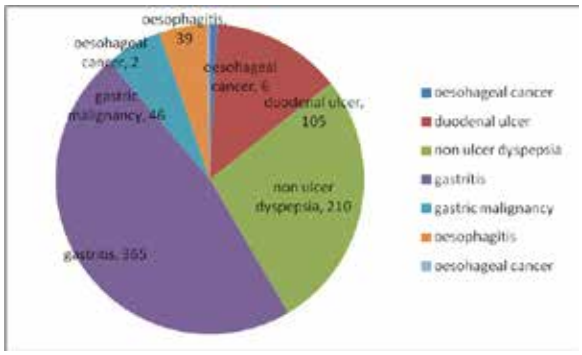
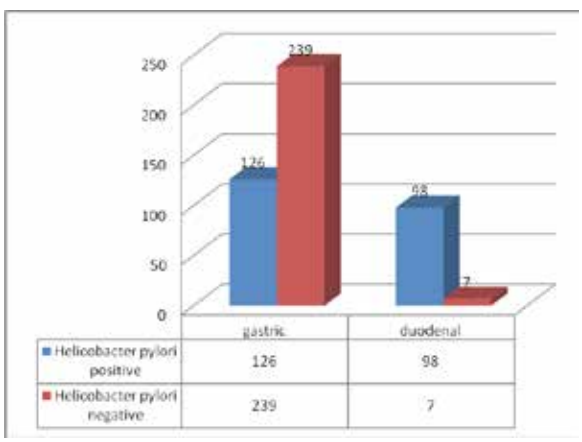


Graph 1 :Endoscopic daignosis of dyspeptic patients

Of the 210 non ulcer dyspepsia none had positivity for Helicobacter pylori., 365 cases of gastritis 126 had positivity for Helicobacter pylori.,46 cases of gastric malignancy ,6 cases oesophageal cancer, 2 cases of oesophageal web, 39 cases of oesophagitis none had positivity for Helicobacter pylori., 6 cases oesophageal cancer, 2 cases of oesophageal web, 39 cases of oesophagitis none of the patients were found to be positive for Helicobacter pylori. of the 105 cases of duodenal ulcer 98 had positivity for Helicobacter pylori.



	gastric	duodenal
Helicobacter pylori positive	126	98
Helicobacter pylori negative	239	7

Garph 2 : Association of Helicobacter pylori and ulcers

No case which was negative by rapid urease test was positive for H.Pylori histologically showing rapid urease test is 100% sensitive for detecting H.Pylori and faster and easily available method than histopathological diagnosis.

DISCUSSION

After the discovery of *Helicobacter pylori* by Marshall and Warren in 1983, many studies were conducted to confirm the association of *Helicobacter pylori* with various acid-peptic diseases. Marshall and Warren observed that 18 out of 22(81%) patients with gastric ulcer and all the 13(100%) patients with duodenal ulcers were positive for Helicobacter pylori. In 59 patients with gastro/duodenitis, 32 were positive for Helicobacter pylori (54.7). In patients with normal upper G.I. endoscopy 8 out of 16(50%) were positive for Helicobacter pylori. [1]

In their study of 180 patients, Von Wulfenet al (1986), found an overall positivity in 98 patients (54%). They observed that in patients with duodenal ulcers, 45 out of 54 patients (83%) showed Helicobacter pylori, while 13 out of 18(73%) patients with gastric ulcers showed Helicobacter pylori. 79 out of 127 patients, with gastritis/ duodenitis were positive for Helicobacter pylori (62%). [2]

Studies by Vaira et al, 1994[3] Sobala et al, 1991[4] Patel et al, 1994[5] were generally similar in design, in that they all have looked at consecutive patients with dyspepsia presenting for endoscopy, and reported their results in terms of endoscopic findings with regards to antibody status for Helicobacter pylori. Combining the studies provided a much larger sample of 631 patients, in which overall351 patients(55.63%) were positive for Helicobacter pylori. In these studies, out of 64 patients with duodenal ulcers, 59 patients (92.19%) tested positive for Helicobacter pylori, while in 30 patients with gastric ulcers, 25(83.33%) were positive for Helicobacter pylori. 121 patients (57.62%) out of 210 patients with gastritis/ duodenitis were positive for Helicobacter pylori.

In the study performed by Gill HH, Majmudar P, Shankaran K, Desai HG [7]The prevalence of IgG and IgA antibodies was 22%, 56% and 87% and 48%, 58% and 83% in 0-4, 5-9 and 10-19 year age groups respectively; thereafter it remained almost constant up to fifth decade. A significant fall in IgG and IgA prevalence was observed from fifth to seventh decades.

CONCLUSION

There is a higher incidence for Helicobacter pylori in duodenal ulcer 98 than in gastritis which is statistically significant <0.001.Also serological test proveS to be a useful diagnostic test for the detection of *Helicobacter pylori.*

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