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ORIGINAL ARTICLE

Prevalence of *Helicobacter pylori* Infection in Patients Complaining of Epigastric Pain and Dyspepsia, Mosul, Iraq

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ABSTRACT

Objectives: To study the prevalence of *H pylori* among patients referred to endoscopic unit Complaining from epigastric pain and dyspepsia.

Methods: To study the epidemiology of *H pylori* infection in patients suffering from epigastric pain and dyspepsia referred to endoscopic unit between first of January to 31 of July 2013.

Results: Out of 106 patients , 65 patient were positive (61.32%) , 30 patient were negative (28.30%) and 11 patient were no histopathological result of *H pylori* (10.37%).

Conclusion: In conclusion there is a significant relation between *H pylori* and epigastric pain & dyspepsia *H pylori* infection affect different age group. Both sex affected by *H. pylori* infection.

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INTRODUCTION

Epigastric pain: (usually described as boring, gnawing, or burning) is the principal presenting symptom and is common to peptic disorders whatever the site. Pain is often accompanied by other forms of discomfort often described by the patient as indigestion or dyspepsia¹.

Dyspepsia: the term dyspepsia derived from greek " dys" meaning bad and " pepsia" meaning indigestion. dyspepsia is a symptom, not a diagnosis the term encompasses abroad spectrum of symptoms that include upper abdominal pain or discomfort, bloating, early satiety, post prandial fullness, nausea with or without vomiting, anorexia, symptoms of gastroesophageal reflux disease, regurgitation and belching².

Warren and Marshall were first to identify and isolate the organism and note it is close relationship with inflammatory gastritis that occurred in the stomach .

The organism is spiral gram-negative rod with 4 to 6 flagella and resides in gastric type epithelium within or beneath the mucus layer, which protects it from both acid and antibiotic . it is shape and flagella aid it is movement through the mucus layer and it produce a variety of enzymes that help it adapt to a hostile environment . most notably it is one of the most potent producers of urease splitting in to ammonia and bicarbonate, creating an alkaline micro environment in the setting of an acidic gastric milien, which facilitates establishing a diagnosis of this organism by various laboratory tests^{3,4}.

The mechanism responsible for *H. pylori* induced gastro intestinal injury remain to be fully elucidated, but three potential mechanisms have been proposed:

1-induction of a local immune response

2-increase gastrin level with a resultant increase in acid secretion

H. pylori is known to cause a local inflammatory reaction in gastric mucosa and to produce chemotactic factors that attract neutrophils and monocytes ,activated monocytes and neutrophils in turn procedure a number of pro inflammatory cytokines and reactive oxygen metabolites^{3,5}.

MATERIALS AND METHODS

A prospective study was done during a period from first January to July 2013 for 106 patients in Al-Rabee Privet Hospital suffering from epigastric pain and dys pepsa referred to endoscopic unit.

RESULTS

Table 1 show 65 (61.3%) patient positive for *H. pylori* 30 (28.30%) patient was negative for *H. pylori* and 11 (10.3%) patient were no histopathological result for *H. pylori*.

Table 1: Distribution of *H. pylori* from patients of epigastric pain and dyspepsia.

<i>H. pylori</i>	Negative	Positive	No result
No. of patients	30 (28.30%)	65 (61.32%)	11 (10.37%)

Gender: Forty patients (37.73%) were male and 66 patients (62.26%) were female .

Age: Age of patient : 8 patient below 20 years, were 4 positive for H pylori. 47 patient between 20 - 40 years , were 30 positive for H pylori. 36 patient between 40 – 60 years , were 15 positive for H pylori. 15 patient between above 60 years, were 6 positive for H pylori (Table 2).

Table 2: Distribution of *H. pylori* according to age of patients.

Age of patients	No of patient	Positive <i>H. pylori</i>	Negative <i>H. pylori</i>
Below 20 year	8 (7.54%)	4	4
20 - 40 year	47 (44.33%)	30	17
40 - 60 year	36 (33.96%)	15	21
Above 60 year	15 (19.81%)	6	9

Discussion

In our study the prevalence of H pylori (61.32%), which is nearly the same as in study done by J,I Rodriguez-Garci R.Carmona-Sanchez (2016)⁶, and in study done by Christen Rune Stensvold (2016)⁷.

Many studies have attempted to prove link between *Helicobacter pylori* infection and functional dyspepsia, but the result have been conflicting. Several mechanisms have been postulated for how *H. pylori* associated inflammation disturbs antral and duodenal function, but

no pathophysiological explanation of how *H. pylori* cause dyspeptic symptoms is presently available^{8,9}. These study similar to our study .

Epidemiological studies have documented numerous difference in prevalence of *H. pylori* in different gender and ethnic group, in this study the prevalence of *H. pylori* infection was determent among the patients who had been endoscopically examined and this the same as in the study done in Indonesia by Pribadi RR, et al (2017)¹⁰.

H. pylori infection can occur in childhood, and this result supported by study done by Lakkana Rerksuppaphol, & Sanguansak Rerksuppaphol)¹¹.

Conclusions

In conclusion there is a significant relation between *H. pylori* and epigastric pain & dyspepsia; *H. pylori* infection affect different age group. Both sex affected by *H. pylori* infection.

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