Helicobacter Pylori Infection among Patient Attending AL-Kuwait Hospital During the War in Sana'a City, Yemen

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Abstract:- Helicobacter infection is a disease caused by *Helicobacter pylori* **with different risk factors that differ around the world according to socioeconomic status, poor hygiene, geographic variations and stress. So this study was occupied to determine the incidence of** *Helicobacter pylori* **infection between patients who attended AL-Kuwait hospital during the war in Sana'a city with the risk factor. Totally 150 specimens suffered with pain of the stomach was collected from patients who attended AL- Kuwait hospital from February 2019 to March 2020. The questionnaire was done to know some information like age, sex, and some risk factors like smoking, taking of the drug for long periods and stress. All specimens were examined by The** *H. pylori* **Antigen Rapid Test (Cassette). Of 150 samples investigated, there were 100 /150 (67%)** *Helicobacter pylori*, **which were among male 10 (33.3%) and female 90 (75%).** *Helicobacter pylori* **infection had the highest prevalence within range age (25-35) years. In additional,** *Helicobacter pylori* **infection had the highest prevalence among smoking male (33.3%). Most of patient who is positive** *H. pylori* **no taking drug for chronic diseases. The results appear strong association between** *Helicobacter pylori* **infection and stress P (0.000) due to the war which made all people nervous and depresses.**

Keywords:- *Helicobacter pylori infection, Antigen of stool, AL- Kuwait Hospital, Sana'a City.*

I. INTRODUCTION

Gastric or ulcer peptic disease is a common disease in the world, especially in developing country (**Noor** *et al.,* **2020 and Yang& YZhou ., 2014).** Gastric disease is caused by *Helicobacter pylori*, which is Gram-negative, microaerophilic, spiral-shaped bacteria (**Calik** *et al.,* **2016**).

Helicobacter pylori causes infection in all varieties of age (**Calik** *et al.,* **2016& Mohanna** *et al.,* **2014**). *Helicobacter pylori* is caused infection by its ability to neutralize the acidity in the stomach that leads to irritate the lining of the stomach and appear ulcer peptic (**G M Huwiage** *et al.,* **2019**).

There are many ways for transmitting the *Helicobacter pylori* like oral- oral, fecal-oral, or gastric-oral (**G M Huwiage** *et al.,* **2019 & Mohanna** *et al.,* **2014**). There are no defined symptoms of *Helicobacter pylori* infection but patient went to the hospital when suffered of nausea, vomiting, and stomach pain (**Noor** *et al.,* **2020 and Gold** *et al.,* **2014**).

There are many risk factors to assist this bacteria to expand such as Lower socioeconomic status, lower level education, poor hygiene, The geographic variations and stress (**Diab** *et al.,* **2018 , Keran Jia** *et al.,* **2016& Guo** *et al.,* **2009**).

There are many of test to diagnose *Helicobacter pylori* in lab, which has advantages and disadvantages (**Noor** *et al.,* **2020, Diab** *et al.,* **2018 & Keran Jia** *et al.,* **2016**). One of this way stool antigen testing, which is easy, rapid, cheap and accurate method(**G M Huwiage** *et al.,* **2019**).

This study aimed to screen the incidence of H. pylori antigen during the war among patient attending Al-Kuwait hospital during the war in Sanaa, Yemen.

II. MATERIALS AND METHODS

This study occurred in AL- Kuwait hospital in Sana'a city from February 2019 to January 2020. Collected 150 stool samples that were suspected *Helicobacter pylori* infection from 9:00 pm to 12:00 pm with questioner was used to collect data about the demographic, socio-economic, environmental background.

➢ *Examination of stool:*

The *H. pylori* Antigen Rapid Test (Cassette) feces were used to diagnose *Helicobacter pylori* (Helagen and Acon) as shown:

- The sample should be collected sufficient quantity of feces (1-2 ml or 1-2g in a clean, dry specimen collection container to obtain maximum antigen.
- The sample was taken randomly by stab the stool in at least three different sites to collect 50 mg to specimen collection tube containing buffer. In case, liquid specimen was taken two drops.
- The specimen collection tube was shaken then left two minutes.
- Two drops of The specimen collection tube were squeezed into the sample well of the cassette.
- The results were read after 10 minutes, according to Helagen company or 15 minutes according Acon company. (2strands that is positive and one strand is control)(**Noor** *et al.,* **2020**).

> *Statistical analysis:*

It was used by using 20 SPSS. Percentage and Chi – square test were used to evaluate the degree of the significance with 95% confidence (p < 0.05).

III. RESULT AND DISCUSSION

Of 150 patients attended Al-Kuwait hospital and suffered of stomach pain, there were 100 /150 (66.6%) *H. pylori* infection. *Helicobacter pylori* infection more prevalence between women 90/ 120 (75 %) than man 10/ 30 (33.3%) as shown at **table1**. No significant relation between sex and *H. pylori*. This result agrees with **Noor et al., (2021)** who concluded that females had higher prevalence of *H. pylori* infection than male (63% vs 370%).

Sex	Number	Positive cases	Percent
female	120	90	75%
Male	30	10	33.3 %
total	150	100	100%

Table1: *Helicobacter pylori* infection according to Sex

Helicobacter pylori infection had the highest prevalence within range age (25-35) years (50%) whereas the lowest prevalence of *Helicobacter pylori* infection within range age (5-15) years (6%). No significant relation between Age and *H. pylori*. This agrees with **Awadh et al., (2020)** who resulted that the highest prevalence within range age (25-35) years of diabetics and non-diabetic.

This study shows that the highest prevalence of *Helicobacter pylori* infection among smoking male (33.3%). This due to culture of Yemen is conservative in where women no smoking. This result agree s with A-**Ameri and Alkad, (2013)** where *Helicobacter pylori* infection is more prevalent among smoking (55.6%) than nonsmoking (36.9%).

The results explained the high percentage of *Helicobacter pylori* infection among patient who did not take any drugs 12% (12/ 100) due to most of patient suffer only from pain of the stomach . Also, the high percentage of *Helicobacter pylori* infection among patient who did not acquired infection before 98% (98 /100).

This study explained the frequencies of the risk factors of *Helicobacter pylori* infection from positive isolates, including stress 100%, The strong association P. value (o.oo) due to the war in Sana'a. This result agrees with **Jia et al., (2016)** who explained the *Helicobacter pylori* infection increased between stressed military recruits compared to before .

IV. CONCLUSIONS

Helicobacter pylori worldwide Infection, which happened in different age among women. The Physiology stress is the most important risk factor for *Helicobacter pylori* infection, which refer to the war that make everyone nervous and depression.

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