STUDY THE EFFECT OF OXIDATIVE STRESS AND SEVERAL BIOCHEMICAL FEATURES IN PATIENTS WITH *HELICOBACTER PYLORI* (*H PYLORI*) BACTERIA

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ABSTRACT

Objective: Gastric ulcer, also known as peptic ulcer, is a localized area of erosion in the stomach lining, resultin abdominal pain, possible bleeding, and other gastrointestinal symptoms. The most common cause of gastric ulcer is a stomach infection associated with the *Helicobacter pylori* (*H pylori*) bacteria. The spread of *H pylori* among humans is not completely understood; it may spread through contaminated food and water. Antioxidants are molecules which can safely interact with free radicals and terminate the chain reaction before vital molecules are damaged. The aim of the current study is to investigate the oxidative stress in patients with *H. pylori* and compare to control group.

Methods: A total of 60 males were studied in Digestive Centerand Central Health Laboratory, Baghdad, Iraq. The samples were collected within 3 months, starting from July till September 2011. The pepsinogenI(PGI), pepsinogen II(PGII), Anti-*Helicobacter pylori*IgG and gastrin 17 in sera of patients and control are measurement after subjected all patients for clinical diagnosis and examination of (gastroscopic) under the supervision of a committee of doctors jurisdiction. Laboratory investigations including gastric panel tests, serum total antioxidant capacity (TAA), malondialdehyde (MDA), Glutathione (GSH), Vitamin C, Vtamin E, uric acid and TAA / MDA ratio . The control group consisted of 40 healthy individuals who were not complaining of any gastro intestinal problem.

Results & Conclusions: The present study showed increase in the mean level of Anti-*H.pylori*Ab-IgG more over observed that the level of circles accounting PGI and PGII and PGII / PGI ratio which increased in patient group when compared to control group, while the mean level of gastrin17 was decreased in patient group compared to control. On the other hand the mean level of MDA in the sera of patients with *H.pylori*showed a significant increase [P <0.001] compared to control group, while significant decrease in TAA, vitamin C, glutathione , vitamin E and TAA/MDA ratio in patient groups compared to control. The current study concludethatoxidative stress may play important role in development of Gastric ulcer disease, also TAA/MDA ratio may be used as marker to diagnosis the development the infection in patient with *H.pylori*

KEYWORDS: Folic Acid, Total Antioxidant Capacity, Malondialdehyde, Pepsinogen**,** Gastrin17, and *Helicobacter pylori*