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شبكة المعلومات الجامعية التوثيق الالكتروني والميكروفيلم





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Characteristics of Helicobacter Pylori-Seropositive Subjects According to: A)-The Stool Antigen Test Findings. B)-Serum Pepsinogen Level. C)-Upper Endoscopic Findings.

Thesis
Submitted For Fulfillment of Master Degree
In GASTROENTEROLOGY AND HEPATOLOGY MEDICINE

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خصائص جرثومة هيليكوباكتر بيلوري المصلية حسب

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ب) مصل المصل البيبسينوجين

ج) نتائج التنظير العلوي

رسالة

توطئة للحصول علي درجة درجة الماجستير في أمراض الجهاز الهضمي والكبد مقدمة من

الطبيب / إبراهيم شوقى عبدالله قابيل بكالوريوس الطب و الجراحة تحت إشراف

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سورة البقرة الآية: ٣٢



First and foremost thanks to ALLAH, the Most Merciful.

I wish to express my deep appreciation and sincere gratitude to **Prof. Dr. Khaled Zakaria Elkarmooty**, Professor of Internal medicine – Gastroenterology and Hepatology, Ain Shams University, for his close supervision, valuable instructions, continuous help, patience, advices and guidance. He has generously devoted much of his time and effort for planning and supervision of this study. It was a great honor to me to work under his direct supervision.

I wish to express my great thanks and gratitude **Dr. Osama Ashraf Ahmed**, Assistant professor of Internal medicine

– Gastroenterology and Hepatology, Ain Shams University, for his kind supervision, indispensable advice and great help in this work.

I wish to express my great thanks and gratitude to **Dr. Gina Gamal Naguib,** Lecturer of Internal medicine –

Gastroenterology and Hepatology, Ain Shams University, for her kind supervision, indispensable advice and great help in this work.

Last and not least, I want to thank all my family, my colleagues, , for their valuable help and support.

Finally I would present all my appreciations to my patients without them, this work could not have been completed.

ABSTRACT

Background: Helicobacter pylori infection can be diagnosed by invasive methods using the gastric biopsied specimens or non-invasively by examining serum, urine, breath,or stool. Histological examination by Giemsa staining is usually recommended for the diagnosis, but it is difficult to visualize the bacterium when there is alow density of H.Pylori on the gastric mucosa with atrophic and metaplastic changes. Aim of the Work: The aim of this study is to compare between the prevalence of chronic atrophic gastritis (CAG) and gastric corpus atrophy in Helicobacter pylori-seropositive subjects according to the stool antigen test, serum pepsinogen(PG) level and upper endoscopic findings.

Patients and Methods: The current study represents Cross- sectional study -Descriptive -Diagnostic study. This study had been carried at Ain Shams University and Abbasia fever hospital on 80 seropositive-patients attending to endoscopy ward for a regular check-up, All patients subjected to full history, clinical examination and investigation in the form of; complete blood count, serum anti-H.Pylori immunoglobulin G (IgG), stool antigen test and serum pepsinogen.

Results: The current study showed that there was a significant difference between positive and negative H. pylori regarding pepsinogen I & II and endoscopic finding regarding CAG and CSG.

Conclusion: In conclusion, there is a link between positive stool H. pylori antigen test findings and a serum PG assay and upper endoscopic findings in seropositive subjects.

Keywords: Helicobacter Pylori-Seropositive, The Stool Antigen Test, Serum Pepsinogen Level, Upper Endoscopic

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INTRODUCTION

Helicobacter pylori infection can be diagnosed by invasive methods using the gastric biopsied specimens or non invasively by examining serum, urine, breath, or stool. Histological examination by Giemsa staining is usually recommended for the diagnosis, but it is difficult to visualize the bacterium when there is alow density of H.Pylori on the gastric mucosa with atrophic and metaplastic changes (*Kokkola*, 2000).

Limitations of histological examination include increased false negative test findings due to various density of H. pylori at a different sites, high cost, long turn around time, and inter observer variability. Therefore, in endemic countries like Egypt with s higher risk of chronic atrophic gastritis (CAG), intestinal metaplasia, and gastric cancer, noninvasive tests need to be added for a more reliable diagnosis of H.Pylori infection (*Talebkhan*, 2009).

The monoclonal-type H.Pylori stool antigen test is a reliable test with high specificity and sensitivity (*Korkmaz*, 2013).

It detects the presence of current H.Pylori infection, and is therefore useful for evaluating the status of H.Pylori infection after eradication (*Dominguez*, 2006).

It is useful even in the presence of severe gastric atrophy or intestinal metaplasia, and has the potential for

quantitive evaluation of the intra gastric H.Pylori status (*Choi*, 2011).

The sensitivity, specificity, and accuracy of the stool test is high. Nonetheless, the diagnostic accuracy of the H.Pylori stool antigen test can be diminished in special settings, such as the presence of upper gastrointestinal bleeding, and a small percentage of antigen positive stools may present with other Helicobacter species (*Manes*, 2001).

Moreover, there is a risk of false negative result in cases in which eradication fails, if the test is performed within 2 weeks of eradication or with recent proton pump inhibitor intake therapy (*Dominguez*, 2006).

The serum pepsinogen (PG) assay enables the detection of the progression to advanced gastric corpus atrophy by virtue of the stepwise reduction in the PG I level and PG I/II ratio (*Miki*, 2009).

In endemic areas of H.Pylori-infection, serum PG assay must be widely used to predict the presence of gastric corpus atrophy, **So-called serologic** gastric atrophy, is diagnosed when serum PG I level is less than 70 ng / mL and the serum PG I/II ratio is less than 3. (*Lee*, 2014)

Moreover, only some of the subjects with open-type CAG have gastric corpus atrophy because both the serum PG I and PG II levels increase if there is still an active

H.Pylori infection inside the stomach. Gastric corpus atrophy doesn't occur unless there is a large amount of mucosal cell damage on the fundus, and therefore, the prevalence of gastric corpus atrophy is lower than the prevalence of CAG (*Kim*, 2014).

The most common endoscopic findings in seropositive subjects is chronic atrophic gastritis. (CAG) which appear as transparent visible vessels. (*Miki*, 2009).

AIM OF THE WORK

The aim of this study is to compare between the prevalence of chronic atrophic gastritis (CAG) and gastric corpus atrophy in Helicobacter pylori-seropositive subjects according to the stool antigen test, serum pepsinogen(PG) level and upper endoscopic findings..