# الآية

# بسم الله الرحمن الرحيم

# قال تعالى (وَمَا أُوتِيتُم مِّنَ الْعِلْمِ إِلَّا قَلِيلًا)

صدق الله العظيم

سورة الإسراء الآية (85)

#### **DEDICATION**

Every challenging work need self-efforts as well as guidance of older especially those who were very close to our heart.

My humble effort I dedicate To; The greatest love in my life, the woman whom I loved and give me the strength, well and support all the

time.....dearest mother

To my father.

To my brother.

To my teachers.

To my friends.

#### **ACKNOWLEDGMENTS**

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#### **ABSTRACT**

Helicobacter pylori (H.pylori) infection is responsible for several gastric disease especially major ulcers in the stomach and small intestine, acknowledged to contribute to the majority of gastric carcinoma cases worldwide. This study was conducted at Tasabih Medical Complex in Khartoum State Sudan during the period from March to October 2019, aimed to detect H.pylori among southern Sudan refugees. A total of 200 Patients of southern Sudan refugees, were involved in this study, Blood and stool sample were collected and tested by deferent methods using Immunochromatography test for the detection of (Antigen and Antibody), Enzyme Linked Immunosorbant Assay (ELISA) IgG and IgM and urea breath test (UBT). The data was analyzed by Statistical Package for Social Sciences (SPSS).

Out of 200 samples were collected from Southern Sudan refugees their age ranged from 1-80years old, with mean of  $(36.9 \pm 16.9 \text{ SD})$ . Out of 200 sample 107(53.5%),123(61.5),102(51%), 116(58%) and 105(52.2%) samples were found positive for *Helicobacter pylori* using UBT,ICT antigen, ICT antibody, ELISA IgG and ELISA IgM respectively. The present study revealed that there was no statistically significant association between the frequency of *H. pylori* infection and age and gender by using UBT (p value =0.4 and 0.13) respectively. Comparing the infection in newly coming refugees and old resident refugees, it was found that newly coming positively infected were 81/120(67.5%) while old were 26/80(32.5%) by UBT (p value =0.00). It was found that refugees who are drink service water 41(80.5%) are more susceptible to infection by *H.pylori* than other sources by using UBT (p value =0.00). Compaired between three methods which found that UBT is more sensitive and specific than other methods.

### المستخلص

عدوى الملوية البوابية هي المسؤولة عن العديد من أمراض المعدة وخاصة القرحة الرئيسية في المعدة والأمعاء الدقيقة و ايضا مسؤله عالميا عن سرطان الامعاء بصوره كبيره.

تمت هذه الدراسة في مجمع تسابيح الطبي بولاية الخرطوم. بين مارس وأكتوبر 2019 في اللاجئين من جنوب السودان.

تم اختبار 200عينه من كل الجنسين في اللاجئين من جنوب السودان وتم جمع و اختبار عينة الدم والبراز بطرق مختلفة باستخدام اختبار التصوير المناعي (الجسم الغريب والجسم المضاد) ، وجهاز كشف الاجسام المضاده بواسطه الانزيم المرتبط و عن طريق استخدام اختبار التنفس اليوريا. تحليل النتائج بواسطه برنامج التحليل الإحصائي (اس بي اس اس).

من اصل 200 عينه وجد ان 501(53.5%), 123, (61.5)103, الماوية البوابية عن طريق استخدام اختبار التنفس اليوريا, الختبار التصوير المناعي (الجسم المضاد والجسم الغريب) و اختبار التصوير المناعي (الجسم المضاد والجسم الغريب) على التوالي.

مدي عمر اللاجئين من جنوب السودان من1-80 سنه والمتوسط(36.9 و الانحراف المعياري  $\pm 0.01$ ). ليست هنالك اهمية احصائية بين إنتشار الملوية البوابية والعمر و الجنس معا عن طريق استخدام اختبار التنفس اليوريا (القيمه الاحتماليه  $\pm 0.1$ 0 و $\pm 0.13$ 0 علي التوالي.

مقارنة بين اللاجئين الجدد و اللاجئين القدماء وجد ان ايجابية الملوية البوابية عند اللاجئين الجدد (67.5%) و ايجابية الملوية البوابية عند اللاجئين القدماء (88/26%) عن طريق استخدام اختبار التنفس اليوريا(القيمه الاحتماليه =0.00).

وجد ان اللاجئين الذين يشربون المياه الغيرصالحة للشرب41(80.5%) اكثر عرضة للإصابة ب عدوى الملوية البوابية من باقي المصادر عن طريق استخدام اختبار التنفس اليوريا (القيمه الاحتماليه =0.00). استخدام اختبار التنفس اليوريا اكثر حساسيه و خصوصيه من الطرق الاخري.

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#### **List of Abbreviations**

Co<sub>2</sub> Carbon Dioxide

ELISA Enzyme linked immunosorbant assay

ICT Immunochromatagraphy Test

NSADs Non steroid inflammatory drugs

PCR Polymerase chain reaction

PPI Proton Pump Inhibitor

rRNA Ribionucleic acid

RUT Rapid urease test

SAT Stool Antigen test

SPSS Statistical package for social sciences

UBT Urea breath test