

ISSN: 2708-3659



جامعة الريان
AL-RAYAN UNIVERSITY

مَجَلَّةُ الرِّيَّانِ

للعلوم الإنسانية والتطبيقية

علمية محكمة - نصف سنوية

المجلد الرابع
العدد الثاني
الرقم التسلسلي 7

ديسمبر 2021

المحتويات

البحوث باللغة العربية:

- الانحراف في فهم النص القرآني عند د. محمد شحرور من خلال كتابه "الكتاب والقرآن - قراءة معاصرة" دراسة نقدية في ضوء أصول التفسير.
- د. فائز محمد حسن السومحي 1 - 24
- قاعدة ما لا يتم الواجب إلا به فهو واجب وأثرها في المحافظة على النفس من مخاطر فيروس كورونا "دراسة أصولية مقاصدية تطبيقية".
- د. عزيز محمد علي الخطري 25 - 72
- الكفر والتكفير في ضوء العقيدة الإسلامية.
- د. علي محمد طالب مجور 73 - 113
- نصب الراية للإمام الزليعي والأحاديث التي قال عنها لا أصل له (جمع ودراسة).
- د. محمد بن أحمد بن شعلان البريكي 115 - 143
- خطبة أبي جعفر المنصور في قتل أبي مسلم الخراساني (دراسة في ضوء علم النص).
- د. أحمد سعيد عبيدون 145 - 163
- ممارسات التفكير الرشيق في مصنع المكلا لتعليب الأسماك - الغويزي - محافظة حضرموت من وجهة نظر الموظفين.
- إبراهيم عوض ربيع بأسباع 165 - 192
- أثر التمويل الدولي في سد فجوات التمويل في الجمهورية اليمنية.
- د. محمد أحمد عمر باعمر 193 - 241
- تحليل التوزيع المكاني للسكان في محافظة حضرموت.
- د. جمال أحمد محمد عوض 243 - 263
- دراسة خصائص التربة الفيزيائية بالمنطقة الساحلية بمحافظة حضرموت - اليمن.
- د. خالد صالح باواحدي، د. صلاح عبدالله بن فريجان، أ.د. عبدالكريم صابر علي 265 - 277

البحوث باللغة الإنجليزية:

- Prevalence of *Helicobacter pylori* Infection and its Risk Factors in Dyspeptic Patients: A Laboratory-Based Cross-Sectional Study

Huda Mohammed Barajash , Dr. Eidha Ali Bin-Hameed 287 - 279

Prevalence of *Helicobacter pylori* Infection and its Risk Factors in Dyspeptic Patients: A Laboratory-Based Cross-Sectional Study

Huda Mohammed Barajash
Biology department, Faculty of Science,
Hadhramout University – Yemen

Dr. Eidha Ali Bin-Hameed
Biology department, Faculty of Science, Hadhramout
University.
Health science department, Faculty of medicine and
health science, University of science and technology,
Hadhramout.

Abstract:

This laboratory-based cross-sectional study was aimed to determine the prevalence of *Helicobacter pylori* (*H. pylori*) infection among dyspeptic patients and its association with risk factors in Mukalla city-Hadhramout/Yemen. One hundred stool samples were collected and diagnosed for detection of *H. pylori* by rapid immunochromatographic stool-based antigen test. A total of 30 (30%) cases were positive for *H. pylori* antigen. High prevalence of *H. pylori* infection was observed among males than females, and the age groups of 19-32 years showed the highest rate prevalence of infection. We found statistically significant association between the prevalence of *H. pylori* infection and gender, sources of drinking water, heartburn, regurgitation and antibiotics drug used. In conclusion, prevalence the infection of *H. pylori* was frequent among patients with dyspepsia in the study area. Gender, water sources, clinical symptoms of heartburn, regurgitation and antibiotics used were found as risk factors associated with *H. pylori* infection in dyspeptic patients.

Key words: Dyspeptic patients, *Helicobacter pylori*, Infection, Prevalence, Stool antigen

Introduction

Helicobacter pylori (*H. pylori*) colonize human gastric mucosa leading to chronic gastritis, peptic ulcer, gastric cancer and gastric mucosa associated lymphoid tissue (MALT) lymphoma (Sethi *et al.*, 2013). Some developing countries have 90% prevalence of *H. pylori* infection, whereas developed countries have values ranging from 25 to 40% (Francesco *et al.*, 2014). Dyspepsia is a common health problem encountered worldwide (Naz *et al.*, 2013), and the overall prevalence of dyspepsia associated *H. pylori* infection is 25% (Yazdanpanah *et al.*, 2012; Naz *et al.*, 2013). The causes of dyspepsia remain uncertain and are likely to be infectious and non-infectious agents (Fouad *et al.*, 2014). The major causes include gastroduodenitis, peptic ulcer, malignancies, esophagitis, parasitic infection and functional dyspepsia (Ayana *et al.*, 2014).

Non-invasive diagnostic tests directed *H. pylori* are now available for detection the antigen and antibody. These tests are valuable for screening and therapy evaluation, and are also easy and cheap to perform (Formichella *et al.*, 2013; Lee *et al.*, 2013). Fecal antigen detection *H. pylori* has certain disadvantages like antigen excretion may vary over the time period and may degrade while passing through the intestine. However, if antigen concentration becomes low, false negative results may be reported (Patel *et al.*, 2014).

In Yemen, some previous studies are known about the prevalence of *H. pylori* and its infection, but there have been no studies addressing environmental and dietary risk factors

that are known to have been conducted on the prevalence of *H. pylori* infection antigen either among children or adults in Hadhramout. On a wider level, there is a continuing need for numerical data on *H. pylori* infection distribution, its determinant and potential risk factors associated it in order to identify priorities for the health services in the community. On the other hands, studies on prevalence of *H. pylori* infection are important to design the appropriate interventions strategies. This study aimed at determining the prevalence of *H. pylori* infection among dyspeptic patients in Mukalla city, Hadhramout-Yemen and studying the potential risk factors associated with infection.

Methodology

Study design and population

A laboratory-based cross-sectional study was conducted for 100 suspected cases of patients complaining dyspepsia in Mukalla city, Hadhramout/Yemen. Dyspepsia defined as any person who has 2 or more of the following symptoms; heartburn, upper abdominal pain and regurgitation.

Data collection tool

A standardized structured questionnaire was developed to obtained data regarding the risk factors for *H. pylori* infection consists of systematic questions schedule about study variables and filled with participant's interview.

Stool antigen *H. pylori* test

One step *H. pylori* antigen test is a rapid, immunochromatographic assay supplied by InTec Products, INC, USA for detection of *H. pylori* antigen in human feces sample. The test used to obtain a visual, qualitative result with a high sensitivity 98.4% and specificity 958.6% as per manufacturer's specifications. When feces sample is added to sample pad, it moves through the conjugate pad and mobilizes gold anti-*H. pylori* conjugate that is coated on the conjugate pad. The mixture moves along the membrane by capillary action and reacts with anti-*H. pylori* that is coated on the test region.

Data analysis

Data were analyzed using Statistical Package for Social Sciences (SPSS) version 20. The association between different variables and outcome the prevalence of *H. pylori* infection was measured and compared using Pearson chi-square (χ^2) test. The level of statistical significance was set at *P-value* less than 0.05.

Results

Table (1) illustrates all the dyspeptic patients attending of some main hospitals in Mukalla city, Hadhramout during the study period. Among these participants, 47% were males and 53% were females, and the range age was 5-60 years. 22% of them were illiterate, 35% have primary education, 26% have completed high school, whereas 16% have a college education and 1% has postgraduate education.

Table (1) Data distribution of dyspeptic patients' participants

Participants characteristic		No.	%
Gender	Male	47	47
	Female	53	53
Age group	5 – 18 years	3	3
	19 – 32 years	38	38
	33 – 46 years	37	37
	47 – 60 years	22	22
	Illiterate	22	22
Educational level	Primary education	35	35
	High school	26	26
	University education	16	16
	Postgraduate education	1	1

The overall estimated feco-prevalence of *H. pylori* infection among dyspeptic patients was 30%. High prevalence of *H. pylori* infection observed among males than females with significant association (P -value 0.032). The age groups 19-32 years showed the highest rate prevalence of *H. pylori* infection with no significant association (P -value > 0.05). The predictors of high prevalence infection of *H. pylori* were found in high school education level with no significant association (P -value > 0.05). Also, there was no significant association of *H. pylori* infection prevalence and consuming food meals (P -value 0.349). Water source had a statistically significant association with prevalence *H. pylori* infection (P -value 0.012), and clinical symptoms status of the participants complaining heartburn and regurgitation were significant association with their *H. pylori* infection (P -value 0.001). Similarly, antibiotics drug used was significant associated with *H. pylori* infection (P -value 0.011) as shown in Table (2).

Table (2) Risk factors associated with *H. pylori* infection in dyspeptic patients

Variables		No. of cases	No. of positive (%)	χ^2 test value	P -value
Gender	Male	47	19(63.3)	4.590	0.032*
	Female	53	11(36.7)		
Age group	5 – 18 years	3	1(3.3)	0.251	0.969
	19 – 32 years	38	12(40.0)		
	33 – 46 years	37	10(33.4)		
	47 – 60 years	22	7(23.3)		
	Illiterate	22	6(20.0)		
Educational level	Primary education	35	6(20.0)	7.493	0.112
	High school	26	10(33.4)		
	University education	16	7(23.3)		
	Postgraduate education	1	1(3.3)		
Food pattern	Fatty, citrus and spicy	97	27(90.0)	7.822	0.349
	Nothing	7	3(10.0)		

Water source	Non-filtered water	47	8(27.0)	8.819	0.012*
	Filtered water	51	22(73.0)		
	Filtered and non-filtered water	2	0(0.0)		
Clinical symptoms	Regurgitation	38	6(20.0)	25.454	0.001*
	Heartburn	4	0(0.0)		
	Heartburn and regurgitation	37	21(70.0)		
Antibiotics used	No symptoms	21	3(10.0)	6.496	0.011*
	Used	29	14(47.0)		
	Non-used	71	16(53.0)		

*Statistically significant *P-value* < 0.05

Discussion

In this study, there was frequent feco-prevalence of *H. pylori* among dyspeptic patients. Similar results of *H. pylori* infection prevalence with different ranges showed in other studies; 23.5% (Samson *et al.*, 2018), 24.3% (Aitila *et al.*, 2019), 29.6% (Alim *et al.*, 2010), 37.8% (Iranikhah *et al.*, 2013), 80.3% (Calik *et al.*, 2016) and 81.8% (Sabh and El-Less, 2017), 63.6% (Aminde *et al.*, 2019), 51.4% (Kahase and Haile, 2020) and 35.7% (Namyalo *et al.*, 2021). Therefore, this difference in the prevalence of *H. pylori* infection could be due to the differences in living conditions or levels of exposure to the risk factors.

Similar findings revealed that *H. pylori* infection was more prevalent among males (Abo-Shadi *et al.*, 2013), other more prevalent *H. pylori* infection showed in males 78% and the majority *H. pylori* infected patients were in the age group 31-60 years 61.6% (Chandrababu *et al.*, 2016). On the other hand, 35.7% of females found to be positive for *H. pylori* infection (Samson *et al.*, 2018). Another study revealed the prevalence of *H. pylori* infection was 37.29% in males vs. 31.82% in females and this prevalence increased with age and peaked among 30-50 years (Nkoth *et al.*, 2021). Other study showed the overall 62% of women were infected with *H. pylori* (Mabeku *et al.*, 2018), whereas a study showed 63.6% infected females with *H. pylori* (Mabeku *et al.*, 2020). A study showed the prevalence *H. pylori* infection were higher in women (Alim *et al.*, 2010). The infection of *H. pylori* takes place early in childhood and adolescence and reaches its peak at adulthood at 35 to 44 years (Mabeku *et al.*, 2018). Other study showed a peak prevalence in the group between 40 and 49 years (Simón *et al.*, 2016). The patients aged 50–59 years group had significantly higher *H. pylori* infection (Syam *et al.*, 2015). Maximum incidence of *H. pylori* was recorded in age group 46-55 years (Javed *et al.*, 2010). Other study showed *H. pylori* infection was more prevalent among age group 18 to < 30 years (Abo-Shadi *et al.*, 2013), whereas a study revealed the prevalence of *H. pylori* infection at the age 30–39 years 90.8% and women had a higher infection rate (Zhu *et al.*, 2014). Another study showed A higher prevalence of *H. pylori* infection was observed among subjects between 31-50 years of age and 18-30 years (Naushad *et al.*, 2021). The level of education was statistically related to *H. pylori* infection in the group with high school and an associate's science education (Metanat *et al.*, 2010; Roland *et al.*, 2016). Other study showed that infection of *H. pylori* was higher among school going children with significant value (Aitila *et al.*, 2019). Some studies showed prevalence of *H. pylori* infection associated with some foods (Zhu *et al.*, 2014; Gul *et al.*, 2016). Another study conducted in Yemen

revealed statistically significant correlation between *H. pylori* positivity and fat rich meals and Qat chewing (Moharram *et al.*, 2015). Other similar results of prevalence *H. pylori* infection was significantly higher among individuals with consumption of unboiling and unclear water source (Al-Makdad *et al.*, 2013; Syam *et al.*, 2015; Yadav *et al.*, 2018; Aitila *et al.*, 2019).

In our results, the relationship of *H. pylori* infection with clinical symptoms and antibiotics drug used were significantly associated. Similar results of study showed all patients with upper abdominal pain and frequent burping were *H. pylori* infected (Mabeku *et al.*, 2018). Other studies showed epigastric pain, heartburn and dyspepsia were the most common in infected *H. pylori* (Abo-Shadi *et al.*, 2013; Moharram *et al.*, 2015; Yadav *et al.*, 2018). Another study revealed symptomatic participants complained mostly of heartburn, followed by loss of appetite, abdominal pain, nausea, dark foul- smelling stool and vomiting (Samson *et al.*, 2018). A study confirmed that *H. pylori* infection was significantly associated with oesophagitis, gastritis and peptic ulcer (Al-Makdad *et al.*, 2013). Other agreement results showed the antibiotics drug used was found to be significant risk factor for *H. pylori* infection (Moharram *et al.*, 2015; Nguyen *et al.*, 2017).

Conclusions

Prevalence of *H. pylori* infection among patients with dyspepsia in Mukalla city-Hadhramout has been documented. Correlation between *H. pylori* infection with gender, water sources, clinical symptoms and antibiotics used was statistically significant. Practically, rapid diagnostic stool-based antigen test may be used as alternative to invasive diagnostic methods in high prevalence populations of *H. pylori* infections. We need more studies of prevalence *H. pylori* infection with large sample size.

Ethics approval and consent to participate

Research ethical approval of this study was obtained from Hadhramout University, Faculty of science. Written consent was obtained before commencing the study. Permission letter was obtained from the hospital's administrations. The information was taken from the participants after they agreed to it verbally according to the informed consent with confidentiality of each participant as well as the results.

Availability of data and materials

The authors confirm that all data underlying the findings are fully available without restriction. The corresponding author is responsible to be contacted. All relevant data are within the manuscript.

Acknowledgements

We would like to thank all the study participants and the laboratory technicians who participated in the research work. Special thanks to hospitals administrations for its unreserved support during the data collection. Great thanks express to biology department, faculty of science, Hadhramout University for their efforts in developing scientific research.

Competing interests

The authors declare that they have no competing interests.

Authors' contributions

All authors performed the design of the study. Huda Mohammed Barajash: data acquisition and management, analysis and interpretation. Eidha Ali Bin-Hameed: study supervision, manuscript preparation. All authors have edited the final manuscript for publication. All authors read and approved the final manuscript.

References

- 1- Abo-Shadi MA, El-Shazly TA, Al-Johani MS. Clinical, Endoscopic, Pathological and Serological Findings of *Helicobacter pylori* Infection in Saudi Patients with Upper Gastrointestinal Diseases. British J Medic Med Res. 2013;3(4):1109-1124.
- 2- Aitila P, Mutyaba M, Okeny S, Kasule MN, Kasule R, Ssedyabane F, Okongo B. Prevalence and Risk Factors of *Helicobacter pylori* Infection among Children Aged 1 to 15 Years at Holy Innocents Children's Hospital, Mbarara, South Western Uganda. J Trop Medic. 2019; ID 9303072, <https://doi.org/10.1155/2019/9303072>.
- 3- Alim A, Ataş M, Güneş T, Özkan S, Dündar N. Comparison of antigen and antibody detection tests used for diagnosing the *Helicobacter pylori* infection in symptomatic patients. Basic Clin Scien. 2010;1(4):61-70.
- 4- Al-Makdad AM, Al-Dholaei MH, Thabet AAK, Al-Haimi MA, Balfaqih OS, Al-Haddad AM. Prevalence of *Helicobacter pylori* Infection in Yemeni Patients. Yemeni J Med Scien. 2013;7:33-38.
- 5- Aminde JA, Dedino GA, Ngwasiri CA, Ombaku KS, Mahop MCA, Aminde LN. *Helicobacter pylori* infection among patients presenting with dyspepsia at a primary care setting in Cameroon: seroprevalence, five-year trend and predictors. BMC Infect Dis. 2019;19(1):30.
- 6- Ayana SM, Swai B, Maro VP, Kibiki GS. Upper gastrointestinal endoscopic findings and prevalence of *Helicobacter pylori* infection among adult patients with dyspepsia in northern Tanzania. Tanzania J Health Res. 2014;16(1):1-9.
- 7- Calik, Karamese M, Acar O, Karamese SA, Dicle Y, Albayrak F, Can S, Guvendi B, Tuegut A, Cicek M, Yazgi H. Investigation of *Helicobacter pylori* antigen in stool samples of patients with upper gastrointestinal complaints. Brazilian J Microbiol. 2016;47(1):167-171.
- 8- Chandrababu D, Nandeesh HP, Suvarna D, Aradya HV, Vijaykumar TR, Suresh I, Kothe SR. Association of *H. pylori* Infection With Gastroduodenal Disease: A cross Sectional Study From Mysuru, India. National J Med Res. 2016;6(3):292-295.
- 9- Formichella L, Romberg L, Bolz C, Vieth M, Geppert M, Göttner G, Nölting C, Walter D, Schepp W, Schneider A, Ulm K, Wolf P, Busch DH, Soutschek E, Gerhard M (2013). A novel line immunoassay based on recombinant virulence factors enables highly specific and sensitive serologic diagnosis of *Helicobacter pylori* infection. Clinical Vaccine and Immunology 20:1703-1710.
- 10- Fouad SA, Esmat S, BasyoniMaha MA, Salah Farhan M, Kobaisi MH. Molecular identification of *Giardia intestinalis* in patients with Dyspepsia. Digestion. 2014; 90:63–71. <https://doi.org/10.1159/000362644>.
- 11- Francesco F, Tortora A, Di RT, D'Angelo G, Gianluca I. Role of *Helicobacter pylori* infection on nutrition and metabolism. World J Gastroenterol. 2014;20:12809-12817.
- 12- Gul S, Jawed L, Tariq S, Aziz S. *Helicobacter pylori* Association with Acid Peptic Disease: It's Incidence in Population Having Increase Junk Food Intake. Translational Biomedicine. 2016;7(4):90.
- 13- Iranikhah A, Ghadir M-R, Sarkeshikian S, Saneian H, Heiari A, Mahvari M. Stool Antigen Tests for the Detection of *Helicobacter pylori* in Children. Iranian J Pediat. 2013;23(2):138–142.
- 14- Javed M, Amin K, Muhammad D, Husain A, Mahmood N. Prevalence of *H. pylori*. Professional Med J. 2010;17(3):431-439.
- 15- Kahase D and Haile K. *Helicobacter pylori* Infection and Predictors Among Dyspeptic Adult Patients in Southwest Ethiopia: Cross-Sectional Study. Research and Reports in Tropical Medicine. 2020;11:141–147.

- 16- Lee HC, Huang CL, Lin KY, Chen KW, Wu DC. Performance of routine *Helicobacter pylori* invasive tests in patients with dyspepsia. *Gastroenterology Research and Practice*. 2013;184806. DOI: 10.1155/2013/184806.
- 17- Mabeku LBK, Ngamga MLN, Leundji H. *Helicobacter pylori* infection, a risk factor for Type 2 diabetes mellitus: a hospital-based cross-sectional study among dyspeptic patients in Douala-Cameroon. *Scientific reports*. 2020; 10:12141. <https://doi.org/10.1038/s41598-020-69208-3>.
- 18- Mabeku LBK, Ngamga MLN, Leundji H. Potential risk factors and prevalence of *Helicobacter pylori* infection among adult patients with dyspepsia symptoms in Cameroon. *BMC Infect Dis*. 2018;**18**:278.
- 19- Metanat M, Sharifi-Mood B, Izadi S. Prevalence of *Helicobacter pylori* infection in healthcare workers. *Turkey J Med Scien*. 2010;**40**(6):965-969.
- 20- Moharram ASS, Alqady A, Alhetary AA. Prevalence of *Helicobacter pylori* among Gastritis Patients in Sana'a, Yemen. *Inter J Curr Microbiol Appl Scien*. 2015;**4**(3):769-778.
- 21- Namyalo E, Nyakarahuka L, Afayoa M, Baziira J, Tamale A, Atuhaire GC, Kungu JM. Prevalence of *Helicobacter pylori* among Patients with Gastrointestinal Tract (GIT) Symptoms: A Retrospective Study at Selected Africa Air Rescue (AAR) Clinics in Kampala, Uganda, from 2015 to 2019. *Journal of Tropical Medicine*. 2021; Article ID 9935142, 10 pages <https://doi.org/10.1155/2021/9935142>.
- 22- Naushad VA, Purayil NK, Badi A, Chandra P, Abuzaid HO, Abuhmaira MM, Lutf A, Paramba F, Varikkodan I, Elzouki AY. Potential Predictors and Prevalence of *Helicobacter pylori* Infection Among Adult Patients With Dyspepsia: A Retrospective Study From Qatar. *Cureus*. 2021; 13(7):e16216. DOI 10.7759/cureus.16216.
- 23- Naz F, Malik S, Afzal S, Anwar SA. Frequency of Seropositivity of *Helicobacter pylori* in Patients Presenting with Dyspepsia. *J Ayub Med Coll Abbott*. 2013;**25**(3-4):50-54.
- 24- Nguyen TH, Phan TB, Nguyen VB, Nguyen TVH, Phan TTB, Nguyen VB, Hoang TTH, Le TLA, Nguyen TTM, Vu SN. Prevalence and Risk Factors of *Helicobacter pylori* Infection in Muong Children in Vietnam. *Ann Clin Lab Res*. 2017;**5**: 1.
- 25- Nkoth AF, Taheu CN, Kabeyene ACO, Tchoumbou SGG, Chedjou JP, Ebogo JTB, Babagna ITD, Tagni-Sartre M, Mbacham W, Ndip RN. *Helicobacter pylori* Infection and Predictors Risk Factors among Patients undergoing Gastro-duodenal Fibroscopy in Yaoundé, Cameroon. *European Journal of Medical and Health Sciences*. 2021;**3**(4):28-32. DOI: <http://dx.doi.org/10.24018/ejmed.2021.3.4.920>.
- 26- Patel SK, Pratap CB, Jain AK, Gulati AK, Nath G. Diagnosis of *Helicobacter pylori*: What should be the gold standard? *World Journal of Gastroenterology*. 2014;**20**(36):12847-12859.
- 27- Roland BC, Lee D, Salem A, Ibrahim S, Mori Y, Meltzer SJ. Prevalence and Associated Risk Factors of *Helicobacter pylori* Negative Gastritis. *J Gastro Dig Sys*. 2016;**6**:392. doi:10.4172/2161-069X.1000392.
- 28- Sabh AA, El-Less FME. Prevalence of Common Intestinal Parasites in Adult Patients with Chronic Liver Diseases Associated with *Helicobacter pylori* Infection. *J Egypt SociParasitol*. 2017;**47**(3):695–699.
- 29- Samson ES, Okeleke OJ, Richard AY, Gideon FT, Olutoyosi AL, Damilola O. Screening for *Helicobacter pylori* Infection among Undergraduate Students of a Tertiary Institution using serum Antibody and Stool Antigen Detection Methods. *ScienTechn Res*. 2018;**3**(2):10 pages.

- 30- Sethi A, Chaudhuri M, Kelly L, Hopman W. Prevalence of *Helicobacter pylori* in a first nations population in Northwestern Ontario. Canadian Family Physician. 2013;59(4):e182–e187.
- 31- Simón CG, Andrés FCA, Tomás CG, Luis ACL, Héctor IGG, Santiago EM. Prevalence of *Helicobacter pylori* and Histopathological Features in Gastric Biopsies from Patients with Dyspeptic Symptoms at a Referral Center in Medellin. Revista Colombiana Gastroenterologia. 2016;31(1):9-14.
- 32- Syam AF, Miftahussurur M, Makmun D, Nusi IA, Zain LH, ZulkhairiAkil F, Uswan WB, Simanjuntak D, Uchida T, Adi P, Utari AP, Rezkitha YAA, Subsomwong P, Nasronudin Suzuki R, Yamaoka Y. Risk Factors and Prevalence of *Helicobacter pylori* in Five Largest Islands of Indonesia: A Preliminary Study. PLOS ONE. 2015;23(2):14 pages.
- 33- Yadav AS, Kulkarni UB, Kumar BC, Takalkar UV. Prevalence of *Helicobacter pylori* infection among dyspepsia patients with mucosal lesion in tertiary care hospital. Inter Sur J. 2018;5:2264-2267.
- 34- Yazdanpanah K, Moghimi N, Yousefinejad V, Ghaderi E, Azizi A, Nazem SF. Dyspepsia prevalence in general population aged over 20 in the west part of Iran. J Pak Med Assoc. 2012;62(7):672–6.
- 35- Zhu Y, Zhou X, Wu J, Su J, Zhang G. Risk Factors and Prevalence of *Helicobacter pylori* Infection in Persistent High Incidence Area of Gastric Carcinoma in Yangzhong City. Gastroenterol Res Pract. 2014: ID 481365:10 pages.

انتشار عدوى بكتيريا البوابية الحلزونية وعوامل خطورتها على مرضى عسر الهضم (دراسة مختبرية مقطعية)

د. عيظه علي بن حميد

هدى محمد بارجاش

الملخص:

تهدف هذه الدراسة المختبرية المقطعية العرضية إلى تحديد مدى انتشار عدوى بكتيريا البوابية الحلزونية بين مرضى عسر الهضم، وارتباطها بعوامل الخطورة في مدينة المكلا - حضرموت / اليمن؛ إذ تم جمع مائة عينة براز، وتشخيصها؛ للكشف عن بكتيريا البوابية الحلزونية، عن طريق اختبار مستضد البكتيريا في البراز، باستخدام أشرطة الكروماتوجرافيا المناعية السريعة. المجموع ٣٠ (٣٠٪) حالة كانت إيجابية لمستضد بكتيريا البوابية الحلزونية. وقد لوحظ انتشار عدوى بكتيريا البوابية الحلزونية بين الذكور أكثر من الإناث، وأظهرت الفئات العمرية من ١٩ - ٣٢ سنة و ٣٣ - ٤٦ سنة أعلى معدل لانتشار العدوى. كما وُجدَ ارتباطٌ ذو دلالةٍ إحصائيةٍ معنوية، بين انتشار عدوى بكتيريا البوابية الحلزونية، والجنس ومصادر مياه الشرب وحموضة المعدة والارتجاع واستخدام المضادات الحيوية. واستنتج من هذه الدراسة أن انتشار عدوى بكتيريا البوابية الحلزونية متكرر بين مرضى عسر الهضم. وأن متغيرات الجنس ومصادر المياه والأعراض السريرية، مثل حرقة المعدة والارتجاع واستخدام المضادات الحيوية، مثلت عوامل خطورة، مرتبطة بعدوى بكتيريا البوابية الحلزونية في مرضى عسر الهضم.

الكلمات المفتاحية: مرضى عسر الهضم، بكتيريا البوابية الحلزونية، العدوى، الانتشار، مستضد البراز

ISSN: 2708-3659

AL-Rayan Journal



جامعة الريان
AL-RAYAN UNIVERSITY

of Humanities & Applied Sciences

Scientific Biannual & Refereed

Volume 4
Issue 2
Serial No.7

December 2021