

World Journal of *Gastroenterology*

World J Gastroenterol 2024 December 28; 30(48): 5104-5224



EDITORIAL

- 5104 Bidirectional relationship between gastrointestinal cancer and depression: The key is in the microbiota-gut-brain axis
Priego-Parra BA, Remes-Troche JM

ORIGINAL ARTICLE**Retrospective Study**

- 5111 Image detection method for multi-category lesions in wireless capsule endoscopy based on deep learning models
Xiao ZG, Chen XQ, Zhang D, Li XY, Dai WX, Liang WH
- 5130 Prognostic value of preoperative systemic immune-inflammation index/albumin for patients with hepatocellular carcinoma undergoing curative resection
Chen KL, Qiu YW, Yang M, Wang T, Yang Y, Qiu HZ, Sun T, Wang WT

Clinical Trials Study

- 5152 Efficacy and safety of rebamipide/nizatidine in patients with erosive gastritis: A randomized, multicenter, phase 4 study
Kang D, Choi MG, Shim KN, Jung HK, Nam SJ, Park JH, Kim SG, Kim NH, Hong SJ, Jeon TJ, Chung JI, Lee HL, Lee JY, Kim TO, Lee CM, Kim SM, Kim JH, Kim JE, Moon JS, Kim HD, Lee WS, Park HJ

Observational Study

- 5162 Link between pharyngeal acid reflux episodes and the effectiveness of proton pump inhibitor therapy
Chen YY, Wang CC, Chuang CY, Tsou YA, Peng YC, Chang CS, Lien HC

Basic Study

- 5174 N6-methyladenosine-modified long non-coding RNA *KIF9-AS1* promotes stemness and sorafenib resistance in hepatocellular carcinoma by upregulating *SHOX2* expression
Yu Y, Lu XH, Mu JS, Meng JY, Sun JS, Chen HX, Yan Y, Meng K

LETTER TO THE EDITOR

- 5191 Advancing early diagnosis of inflammatory bowel disease: A call for enhanced efforts
He SB, Hu B
- 5194 Reevaluation of *Helicobacter pylori*'s role in esophageal carcinoma: A call for comprehensive research
Omer JJ, Habtemariam AH
- 5198 Small cell lung carcinoma metastatic to the stomach: Commonly overlooked, limited treatment options
Moyana TN

- 5205** GLP-1, GIP/GLP-1, and GCGR/GLP-1 receptor agonists: Novel therapeutic agents for metabolic dysfunction-associated steatohepatitis
Singh A, Sohal A, Batta A
- 5212** Role of *Candida* species in pathogenesis, immune regulation, and prognostic tools for managing ulcerative colitis and Crohn's disease
Patnaik S, Durairajan SSK, Singh AK, Krishnamoorthi S, Iyaswamy A, Mandavi SP, Jeewon R, Williams LL
- 5221** *Calculus bovis* hijacks the tumor microenvironment in liver cancer cells in a multifaceted approach: A falling row of dominoes
Farhat SG, Karam K

ABOUT COVER

Editorial Board Member of *World Journal of Gastroenterology*, Angela Peltec, PhD, Associate Professor, Department of Internal Medicine, Discipline of Gastroenterology, State University of Medicine and Pharmacy "Nicolae Testemitanu", Chishinev 2019, Moldova. apeltec@yahoo.com

AIMS AND SCOPE

The primary aim of *World Journal of Gastroenterology* (WJG, *World J Gastroenterol*) is to provide scholars and readers from various fields of gastroenterology and hepatology with a platform to publish high-quality basic and clinical research articles and communicate their research findings online. WJG mainly publishes articles reporting research results and findings obtained in the field of gastroenterology and hepatology and covering a wide range of topics including gastroenterology, hepatology, gastrointestinal endoscopy, gastrointestinal surgery, gastrointestinal oncology, and pediatric gastroenterology.

INDEXING/ABSTRACTING

The WJG is now abstracted and indexed in Science Citation Index Expanded (SCIE), MEDLINE, PubMed, PubMed Central, Scopus, Reference Citation Analysis, China Science and Technology Journal Database, and Superstar Journals Database. The 2024 edition of Journal Citation Reports® cites the 2023 journal impact factor (JIF) for WJG as 4.3; Quartile: Q1. The WJG's CiteScore for 2023 is 7.8.

RESPONSIBLE EDITORS FOR THIS ISSUE

Production Editor: *Xiao-Mei Zheng*; Production Department Director: *Xiang Li*; Cover Editor: *Jia-Ru Fan*.

NAME OF JOURNAL

World Journal of Gastroenterology

ISSN

ISSN 1007-9327 (print) ISSN 2219-2840 (online)

LAUNCH DATE

October 1, 1995

FREQUENCY

Weekly

EDITORS-IN-CHIEF

Andrzej S Tarnawski

EXECUTIVE ASSOCIATE EDITORS-IN-CHIEF

Jian-Gao Fan (Chronic Liver Disease)

EDITORIAL BOARD MEMBERS

<http://www.wjgnet.com/1007-9327/editorialboard.htm>

PUBLICATION DATE

December 28, 2024

COPYRIGHT

© 2024 Baishideng Publishing Group Inc

PUBLISHING PARTNER

Shanghai Pancreatic Cancer Institute and Pancreatic Cancer Institute, Fudan University
Biliary Tract Disease Institute, Fudan University

INSTRUCTIONS TO AUTHORS

<https://www.wjgnet.com/bpg/gerinfo/204>

GUIDELINES FOR ETHICS DOCUMENTS

<https://www.wjgnet.com/bpg/GerInfo/287>

GUIDELINES FOR NON-NATIVE SPEAKERS OF ENGLISH

<https://www.wjgnet.com/bpg/gerinfo/240>

PUBLICATION ETHICS

<https://www.wjgnet.com/bpg/GerInfo/288>

PUBLICATION MISCONDUCT

<https://www.wjgnet.com/bpg/gerinfo/208>

POLICY OF CO-AUTHORS

<https://www.wjgnet.com/bpg/GerInfo/310>

ARTICLE PROCESSING CHARGE

<https://www.wjgnet.com/bpg/gerinfo/242>

STEPS FOR SUBMITTING MANUSCRIPTS

<https://www.wjgnet.com/bpg/GerInfo/239>

ONLINE SUBMISSION

<https://www.f6publishing.com>

PUBLISHING PARTNER'S OFFICIAL WEBSITE

<https://www.shca.org.cn>
<https://www.zs-hospital.sh.cn>

Revaluation of *Helicobacter pylori*'s role in esophageal carcinoma: A call for comprehensive research

Jemila Ibrahim Omer, Alexander Habte Habtemariam

Specialty type: Gastroenterology and hepatology

Provenance and peer review: Unsolicited article; Externally peer reviewed.

Peer-review model: Single blind

Peer-review report's classification

Scientific Quality: Grade B

Novelty: Grade B

Creativity or Innovation: Grade B

Scientific Significance: Grade B

P-Reviewer: Khadim S

Received: August 5, 2024

Revised: September 25, 2024

Accepted: November 5, 2024

Published online: December 28, 2024

Processing time: 115 Days and 16.1 Hours



Jemila Ibrahim Omer, Department of Internal Medicine, Orotta School of Medicine, Asmara 291-1, Eritrea

Alexander Habte Habtemariam, Department of Surgery, Assab Military Hospital, Assab 291-1, Southern Red-sea Region, Eritrea

Corresponding author: Jemila Ibrahim Omer, MD, Doctor, Department of Internal Medicine, Orotta School of Medicine, Aarerib Street, Asmara 291-1, Eritrea. jemilaomer1988@gmail.com

Abstract

The study by López-Gómez *et al*, reports a significantly low prevalence (4.5%) of *Helicobacter pylori* (*H. pylori*) infection in esophageal cancer patients, contrasting sharply with the general population's infection rate. This finding challenges the established negative association between *H. pylori* and gastric malignancies, suggesting a potential protective role of *H. pylori* against esophageal carcinoma, particularly in the context of widespread proton pump inhibitor use. However, the study's retrospective nature, single-center design, and small sample size limit the generalizability of the findings and raise concerns about selection bias and statistical power. Diagnostic methods primarily based on histology may not detect all cases, especially those with prior antibiotic or proton pump inhibitor use. Additionally, the study does not account for various confounding factors such as dietary habits, socio-economic status, and genetic predispositions that could affect the association between *H. pylori* and esophageal carcinoma. Further research with larger, more diverse cohorts and comprehensive data collection is necessary to clarify the complex relationship between *H. pylori* and esophageal carcinoma and substantiate these preliminary findings.

Key Words: *Helicobacter pylori*; Esophageal carcinoma; *Helicobacter pylori* prevalence; Gastric malignancies; Proton pump inhibitors; Retrospective observational study

©The Author(s) 2024. Published by Baishideng Publishing Group Inc. All rights reserved.

Core Tip: The implication that widespread *Helicobacter pylori* (*H. pylori*) eradication could contribute to a rise in esophageal cancer cases warrants further investigation. Additionally, a more thorough investigation of lifestyle, dietary habits, socio-economic status, and genetic predispositions as potential confounding factors could provide clarity in understanding the relationship between *H. pylori* infection and esophageal cancer. The widespread nature of *H. pylori* worldwide and its association with many gastrointestinal malignancies make it a critical area of focus for future clinical research.

Citation: Omer JI, Habtemariam AH. Reevaluation of *Helicobacter pylori*'s role in esophageal carcinoma: A call for comprehensive research. *World J Gastroenterol* 2024; 30(48): 5194-5197

URL: <https://www.wjgnet.com/1007-9327/full/v30/i48/5194.htm>

DOI: <https://dx.doi.org/10.3748/wjg.v30.i48.5194>

TO THE EDITOR

We read with great interest the article published in the *World Journal of Gastroenterology*[1]. The authors have conducted an important study that contributes significantly to our understanding of the potential relationship between *Helicobacter pylori* (*H. pylori*) infection and esophageal carcinoma.

The study's comprehensive analysis and robust methodology provide valuable insights into the prevalence of *H. pylori* infection among patients with esophageal carcinoma. However, we would like to address several points that may enhance the interpretation of the findings and suggest potential areas for future research.

POTENTIAL CONFOUNDING FACTORS

While the study acknowledges the role of confounding factors such as age, gender, and smoking status, it would be helpful to explore further additional confounders such as dietary habits, socio-economic status, and genetic predispositions, which might influence the prevalence of *H. pylori* infection and the risk of esophageal carcinoma. For instance, high salt intake and the consumption of processed meats have been associated with both *H. pylori* infection and the risk of gastrointestinal malignancies. Accounting for these factors could provide a more nuanced understanding of the associations observed in the study[2-4].

STRAIN-SPECIFIC ANALYSIS OF *H. PYLORI*

The virulence factors of different *H. pylori* strains, such as CagA and VacA, are known to contribute to gastric carcinogenesis. It would be interesting to investigate whether specific *H. pylori* strains are more prevalent in patients with esophageal carcinoma and whether these strains possess distinct virulence factors that may contribute to esophageal carcinogenesis. For example, patients harboring CagA-positive strains of *H. pylori* may exhibit different clinical outcomes compared to those infected with other strains. Such an analysis could elucidate whether strain-specific differences have protective or harmful effects in esophageal cancer patients[5,6].

IMPLICATIONS FOR SCREENING AND TREATMENT

The findings of this study have significant implications for the screening and treatment of *H. pylori* infection in populations at risk for esophageal carcinoma. Given the potential protective role of *H. pylori*, especially in populations with high proton pump inhibitor use, it may be prudent to reconsider current eradication strategies in certain high-risk groups. Targeted screening programs for *H. pylori* in patients with a history of proton pump inhibitor use or other risk factors for esophageal carcinoma could be valuable for identifying those who may benefit from more tailored approaches to eradication and management[7,8].

POOR SURVIVAL DURATION OF THE *H. PYLORI*-POSITIVE GROUP

In the study, it was mentioned that the *H. pylori* group had a survival duration not exceeding 9 months after diagnosis. However, there was no comparison made with the *H. pylori*-negative group, which would have provided additional insights into whether *H. pylori* infection, or certain strains of it, is associated with worse prognoses in esophageal carcinoma patients. Comparing these groups could help identify whether specific *H. pylori* strains are linked to poorer survival outcomes, opening new avenues for research into personalized therapeutic approaches[9].

LONGITUDINAL STUDIES AND CAUSALITY

Given the retrospective observational nature of the study, it is challenging to establish a causal or protective relationship between *H. pylori* infection and esophageal carcinoma. Prospective longitudinal studies are needed to explore the temporal relationship and potential causative role of *H. pylori* in the development of esophageal carcinoma. Such studies would help clarify whether *H. pylori* plays a protective or pathogenic role in esophageal cancer development and offer clearer guidance for clinical practice[10].

CONCLUSION

In conclusion, this study provides valuable data on the prevalence of *H. pylori* infection among patients with esophageal carcinoma and opens new avenues for research. Addressing the aforementioned confounding factors, strain-specific analyses, survival outcomes, and pursuing prospective studies would further strengthen the study's conclusions and provide a more comprehensive understanding of the relationship between *H. pylori* infection and esophageal carcinoma. Thank you for considering our comments. We look forward to future studies that build on these findings and contribute to improving the diagnosis, prevention, and treatment of esophageal carcinoma.

FOOTNOTES

Author contributions: Omer JI and Habtemariam AH both contributed significantly to the development of this manuscript; Omer JI conceptualized the idea and wrote the initial draft of the manuscript; Habtemariam AH provided critical revisions and expert input on the methodology and discussion of strain-specific virulence factors and confounding variables; Both authors reviewed the manuscript, approved the final version, and agree to be accountable for all aspects of the work.

Conflict-of-interest statement: All the authors report no relevant conflicts of interest for this article.

Open-Access: This article is an open-access article that was selected by an in-house editor and fully peer-reviewed by external reviewers. It is distributed in accordance with the Creative Commons Attribution NonCommercial (CC BY-NC 4.0) license, which permits others to distribute, remix, adapt, build upon this work non-commercially, and license their derivative works on different terms, provided the original work is properly cited and the use is non-commercial. See: <https://creativecommons.org/licenses/by-nc/4.0/>

Country of origin: Eritrea

ORCID number: Jemila Ibrahim Omer 0009-0009-5694-6472; Alexander Habte Habtemariam 0009-0004-4736-8475.

S-Editor: Li L

L-Editor: Webster JR

P-Editor: Zheng XM

REFERENCES

- López-Gómez M, Morales M, Fuerte R, Muñoz M, Delgado-López PD, Gómez-Cerezo JF, Casado E. Prevalence of Helicobacter pylori infection among patients with esophageal carcinoma. *World J Gastroenterol* 2024; **30**: 3479-3487 [PMID: 39156503 DOI: 10.3748/wjg.v30.i29.3479]
- Rueda-Robles A, Rubio-Tomás T, Plaza-Diaz J, Álvarez-Mercado AI. Impact of Dietary Patterns on H. pylori Infection and the Modulation of Microbiota to Counteract Its Effect. A Narrative Review. *Pathogens* 2021; **10**: 875 [PMID: 34358024 DOI: 10.3390/pathogens10070875]
- Habbash F, Alalwan TA, Perna S, Ahmed N, Sharif O, Al Sayyad A, Gasparri C, Ferraris C, Rondanelli M. Association between Dietary Habits and Helicobacter pylori Infection among Bahraini Adults. *Nutrients* 2022; **14**: 4215 [PMID: 36235867 DOI: 10.3390/nu14194215]
- Razuka-Ebela D, Polaka I, Parshutin S, Santare D, Ebela I, Murillo R, Herrero R, Tzivian L, Young Park J, Leja M. Sociodemographic, Lifestyle and Medical Factors Associated with Helicobacter Pylori Infection. *J Gastrointest Liver Dis* 2020; **29**: 319-327 [PMID: 32919416 DOI: 10.15403/jgld-870]
- Baj J, Forma A, Sitarz M, Portincasa P, Garruti G, Krasowska D, Maciejewski R. Helicobacter pylori Virulence Factors-Mechanisms of Bacterial Pathogenicity in the Gastric Microenvironment. *Cells* 2020; **10**: 27 [PMID: 33375694 DOI: 10.3390/cells10010027]
- Ofori EG, Adinortey CA, Bockarie AS, Kyei F, Tagoe EA, Adinortey MB. Helicobacter pylori Infection, Virulence Genes' Distribution and Accompanying Clinical Outcomes: The West Africa Situation. *Biomed Res Int* 2019; **2019**: 7312908 [PMID: 31886245 DOI: 10.1155/2019/7312908]
- Wiklund AK, Santoni G, Yan J, Radkiewicz C, Xie S, Birgisson H, Ness-Jensen E, von Euler-Chelpin M, Kauppila JH, Lagergren J. Risk of Esophageal Adenocarcinoma After Helicobacter pylori Eradication Treatment in a Population-Based Multinational Cohort Study. *Gastroenterology* 2024; **167**: 485-492.e3 [PMID: 38513743 DOI: 10.1053/j.gastro.2024.03.016]
- National Cancer Institute. Helicobacter pylori (H. pylori) and Cancer - NCI. 2013. [cited 4 August 2024]. Available from: <https://www.cancer.gov/about-cancer/causes-prevention/risk/infectious-agents/h-pylori-fact-sheet>
- Che H, Xiong Q, Ma J, Chen S, Wu H, Xu H, Hou B. Association of Helicobacter pylori infection with survival outcomes in advanced gastric cancer patients treated with immune checkpoint inhibitors. *BMC Cancer* 2022; **22**: 904 [PMID: 35986342 DOI: 10.1186/s12885-022-10004-9]

- 10 **Gao H**, Li L, Zhang C, Tu J, Geng X, Wang J, Zhou X, Jing J, Pan W. Systematic Review with Meta-analysis: Association of Helicobacter pylori Infection with Esophageal Cancer. *Gastroenterol Res Pract* 2019; **2019**: 1953497 [PMID: 31871444 DOI: 10.1155/2019/1953497]



Published by **Baishideng Publishing Group Inc**
7041 Koll Center Parkway, Suite 160, Pleasanton, CA 94566, USA
Telephone: +1-925-3991568
E-mail: office@baishideng.com
Help Desk: <https://www.f6publishing.com/helpdesk>
<https://www.wjgnet.com>

