

PEER-REVIEW REPORT

Name of journal: *World Journal of Gastrointestinal Oncology*

Manuscript NO: 76941

Title: Inverse Relations between Helicobacter pylori Infection and Risk of Esophageal Precancerous Lesions in Drinkers and Peanut Consumption: A Case-Control Study in a Rural Adult Chinese Population

Provenance and peer review: Unsolicited Manuscript; Externally peer reviewed

Peer-review model: Single blind

Reviewer's code: 00068912

Position: Editorial Board

Academic degree: DSc, MD

Professional title: Full Professor

Reviewer's Country/Territory: Russia

Author's Country/Territory: China

Manuscript submission date: 2022-04-07

Reviewer chosen by: AI Technique

Reviewer accepted review: 2022-04-07 18:52

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Review time: 15 Hours

Scientific quality	<input type="checkbox"/> Grade A: Excellent <input type="checkbox"/> Grade B: Very good <input checked="" type="checkbox"/> Grade C: Good <input type="checkbox"/> Grade D: Fair <input type="checkbox"/> Grade E: Do not publish
Language quality	<input type="checkbox"/> Grade A: Priority publishing <input checked="" type="checkbox"/> Grade B: Minor language polishing <input type="checkbox"/> Grade C: A great deal of language polishing <input type="checkbox"/> Grade D: Rejection
Conclusion	<input type="checkbox"/> Accept (High priority) <input type="checkbox"/> Accept (General priority) <input checked="" type="checkbox"/> Minor revision <input type="checkbox"/> Major revision <input type="checkbox"/> Rejection

Re-review	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Peer-reviewer statements	Peer-Review: <input checked="" type="checkbox"/> Anonymous <input type="checkbox"/> Onymous Conflicts-of-Interest: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

SPECIFIC COMMENTS TO AUTHORS

The article entitled "Inverse Relations between Helicobacter pylori (H.pylori) Infection and Risk of Esophageal Precancerous Lesions in Drinkers and Peanut Consumption: A Case-Control Study in a Rural Adult Chinese Population" by the Da Pan et al. is devoted to the role of H. pylori in the risk of Esophageal Precancerous Lesions. The design of the study is well organized. The title, abstract and keywords correspond to the text of the article. The materials and methods section provides links with a detailed description of the methods. The authors examined a large group of patients. The selection and exclusion criteria were clearly defined and used. Methods of statistical processing of the data obtained were used. Using enzyme immunoassay to detect H.pylori, the authors obtained a low incidence of this bacterium in the examined groups. The authors found that H.pylori infection is associated with a reduced risk of Esophageal Precancerous Lesions in drinkers among the adult rural population of China, and peanut consumption leads to a reduced risk of H.pylori infection. It has also been shown that the risk of developing Esophageal Precancerous Lesions increases in malicious (more than 20 cigarettes per day) smokers. Based on this, it is necessary to conduct a multifactorial analysis of the relationship of these indicators for the development of Esophageal Precancerous Lesions. The authors appropriately cite the latest and relevant references. The data obtained by the authors are important for understanding the role of Helicobacter pylori for humans. Currently, there is more data indicating the positive role of this bacterium for humans. The review published in the WJG presents data that this bacterium probably is a commensal, or symbionote (Helicobacter pylori: Commensal,

sympiont or pathogen? World J Gastroenterol 2021; 27(7): 545-560.DOI: <https://dx.doi.org/10.3748/wjg.v27.i7.545>). The data presented by the authors confirm the postulate made in the review. Minor remarks: - in the abstract and in the materials and methods, it is necessary to represent the age of patients as ($X \pm SD$ years), and not as (± 2 years) - in table 1, "Underweight (<24.0)" should be written "Underweight (<18.5)" - throughout the text of *H. pylori*, it is required to write in italics

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Provenance and peer review: Unsolicited Manuscript; Externally peer reviewed

Peer-review model: Single blind

Reviewer's code: 03727416

Position: Peer Reviewer

Academic degree: MD

Professional title: Associate Professor, Attending Doctor, Chief Doctor

Reviewer's Country/Territory: Taiwan

Author's Country/Territory: China

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Scientific quality	<input type="checkbox"/> Grade A: Excellent <input type="checkbox"/> Grade B: Very good <input checked="" type="checkbox"/> Grade C: Good <input type="checkbox"/> Grade D: Fair <input type="checkbox"/> Grade E: Do not publish
Language quality	<input checked="" type="checkbox"/> Grade A: Priority publishing <input type="checkbox"/> Grade B: Minor language polishing <input type="checkbox"/> Grade C: A great deal of language polishing <input type="checkbox"/> Grade D: Rejection
Conclusion	<input type="checkbox"/> Accept (High priority) <input type="checkbox"/> Accept (General priority) <input type="checkbox"/> Minor revision <input checked="" type="checkbox"/> Major revision <input type="checkbox"/> Rejection

Re-review	[<input checked="" type="checkbox"/>] Yes [<input type="checkbox"/>] No
Peer-reviewer statements	Peer-Review: [<input checked="" type="checkbox"/>] Anonymous [<input type="checkbox"/>] Onymous Conflicts-of-Interest: [<input type="checkbox"/>] Yes [<input checked="" type="checkbox"/>] No

SPECIFIC COMMENTS TO AUTHORS

In this case-control study, Pan et al reported an inverse relation between *Helicobacter pylori* Infection and the risk of esophageal precancerous lesions in drinkers. They also found a consumption of peanut might decrease the risk of *H. pylori* infection in a rural adult Chinese population. It is an interesting study. I have some comments and questions: 1. In this study, serum immunoglobulin G (IgG) antibodies by an ELISA assay (KingMed Diagnostics Group Co., Ltd. Guangzhou, China) were used for *H. pylori* infection screening. According to the result (Table 1), the mean ages of case group (with esophageal precancer lesion, EPL) and control group were 62.85 and 63.01 y/o. But the positive rates of *H. pylori* infection were 23.5% and 29.0% in each group. The prevalence of *H. pylori* infection in people aged more than 60 y/o was about (or more than) 50% in the previous studies. Hence, the positive rate of *H. pylori* infection in this study was far less than the previous studies. Is the lower positive rate of *H. pylori* infection due to selection bias after matching? Authors may draw a figure about study flow chart and explain how the case group and control group were found. Please give the information of the *H. pylori* infection rates by age classification in the study area (such as Huai'an District, Huai'an City, Jiangsu province). Moreover, please give the sensitivity and specificity of the ELISA test used for *H. pylori* infection screen in this study. 2. According to the reference cited in this study (reference 21), the esophageal precancer lesions were detected by endoscopic finding using Lugol iodine solution spray. One of the hypotheses in this study is patients with *H. pylori* infection would develop atrophic gastritis and decrease the gastric acid production. Decreased gastric acid results into less

reflux into the esophagus. EPL in the lower third of esophagus may be more associated with *H. pylori* infection. Are there any records or analyses about the localization (upper third, middle third, lower third in the esophagus) of EPL lesions and *H. pylori* infection?

3. Could authors describe more detail about the alcohol drinking volume evaluation? Questionnaire or lifetime alcohol drinking table? Because many kinds of wines (west, east, Chinese local wines) are available in China, the “current drinking status (alcohol units consumed/day)” may be difficult to be estimated. Did author use AUDIT or CAGE to evaluate the possibility of alcoholism in this study?

4. Because water contamination with *H. pylori* may be an important route for this bacterial infection, the sources of drinking water, such as tap water, deep well water or shallow wells, surface water, may be included in the analysis as a confounding and adjusted factor.

5. In one study by Kuepper-Nybelen J (AP&T, 2005), a regular but moderate consumption of alcohol (consuming 25-50 g alcohol/day) from various sources may facilitate elimination of *H. pylori* infection. In the current study, *H. pylori* infection may decrease the risk of EPL in drinkers in a rural adult Chinese population. Is there a possibility of drinkers without *H. pylori* infection having more alcohol consumption? Hence, the decreased risk of EPL in drinkers with *H. pylori* infection may be related to a less alcohol drinking. In the same condition, people may drink wine and take peanut at the same time in China. People who eat peanut may have drink more wine and get more risks of EPL.

6. Minor correction: table 1, BMI, underweight (<24.0), may correct into (<18.5)