PEER-REVIEW REPORT

Name of journal: World Journal of Gastroenterology

Manuscript NO: 86448

Title: Dental evaluation is helpful in the differentiation of functional heartburn and gastroesophageal reflux disease

Provenance and peer review: Unsolicited Manuscript; Externally peer reviewed

Peer-review model: Single blind

Reviewer’s code: 03032964

Position: Peer Reviewer

Academic degree: FACS

Professional title: Chief Physician, Doctor, Postdoc, Professor

Reviewer’s Country/Territory: China

Author’s Country/Territory: Hungary

Manuscript submission date: 2023-06-20

Reviewer chosen by: AI Technique

Reviewer accepted review: 2023-06-28 01:34

Reviewer performed review: 2023-07-07 01:43

Review time: 9 Days

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<th>Scientific quality</th>
<th>[ ] Grade A: Excellent [ ] Grade B: Very good [ ] Grade C: Good [ ] Grade D: Fair [ ] Grade E: Do not publish</th>
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<td>Novelty of this manuscript</td>
<td>[ ] Grade A: Excellent [ ] Grade B: Good [ ] Grade C: Fair [ ] Grade D: No novelty</td>
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<td>Creativity or innovation of this manuscript</td>
<td>[ ] Grade A: Excellent [ ] Grade B: Good [ ] Grade C: Fair [ ] Grade D: No creativity or innovation</td>
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SPECIFIC COMMENTS TO AUTHORS
This study raised the hypothesis that dental evaluation (dental erosions, periodontal abnormalities) in patients with heartburn may be useful in the differential diagnosis of GERD and FHB. The experiment found that: the prevalence of dental disease in patients with heartburn was about 89%. Compared with heartburn patients without any dental disease, heartburn patients with both DE and PD had more significant pathological reflux, higher grade of esophagitis, and significantly different mean impedance curves. Compared with FHB, GERD had a higher prevalence of DE and PD, especially when they coexisted. When evaluating the mean impedance curve, the trend of patients with both PD and DE was similar to that of GERD patients. This study confirmed the above hypothesis experimentally. The study is the first attempt to distinguish GERD from FHB on the basis of oral manifestations. Currently, no studies have been performed to assess hard and soft tissue injuries (DE and PD), and their relationship has never been investigated from dental and gastroenterological perspectives. Conclusions are properly summarized the data provided by the study, and it is found that the co-existence of PD and DE is more likely to have pathological reflux, and the severity of esophagitis is
higher than that of other groups. This study provides a new, inexpensive, widely available, and useful method for the differential diagnosis of GERD and FHB. There are some limitations in the study: The study was conducted in a tertiary referral center, and the patient selection may be single. During the pH-MII process, the conditions of inpatients in the hospital and at home were inconsistent. Dental erosions is cumulative damage, representing long-term consequences of reflux, not necessarily related to current reflux status. Here are some suggestions I would give authors: Firstly, this study explored whether the dental evaluation of heartburn patients can help differentiate GERD from FHB, so it may be better to add heartburn, differential diagnosis to the keywords. Secondly, in the introduction, the manuscript may not adequately describe the status and significance of the research. Thirdly, The meanings represented by the horizontal and vertical axes of the two graphs describing the average impedance value are not indicated. Lastly, The future direction of this research and the related research to be carried out by the author in the next step can be further explained.
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Reviewer’s code: 03261461

Position: Editorial Board

Academic degree: MD

Professional title: Associate Professor

Reviewer’s Country/Territory: Egypt

Author’s Country/Territory: Hungary

Manuscript submission date: 2023-06-20

Reviewer chosen by: AI Technique

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Reviewer performed review: 2023-07-09 05:11

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Scientific quality

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Scientific significance of the conclusion in this manuscript

[ ] Grade A: Excellent  [Y] Grade B: Good  [ ] Grade C: Fair
[ ] Grade D: No scientific significance

Language quality

[ ] Grade A: Priority publishing  [Y] Grade B: Minor language polishing  [ ] Grade C: A great deal of language polishing  [ ] Grade D: Rejection

Conclusion

[ ] Accept (High priority)  [ ] Accept (General priority)
[ ] Minor revision  [Y] Major revision  [ ] Rejection

Re-review

[Y] Yes  [ ] No

Peer-reviewer statements

Peer-Review: [Y] Anonymous  [ ] Onymous

Conflicts-of-Interest: [ ] Yes  [Y] No

SPECIFIC COMMENTS TO AUTHORS
Thanks for your manuscript about dental evaluations in differentiating GERD and FHB. However I have some comments that need to be revised: 1-In patients and methods: - the authors mentioned that none of the patients fulfilled the Rome criteria. How did you diagnose FHB in the studied patients? -the authors mentioned they used a questionnaire to assess the typical and atypical reflux symptoms but they didn't specify which questionnaire was used and the results of the questionnaire was were not available in the results section 2- table one the terms DE all, DE only, PD All and PD only are not clear please clarify what do you mean with these terms and include all the abbreviations as footnote below the table to be more easily understood 3- in table two plaques index was not mentioned in the method please explain how did you calculate it 4- in results section: authors mentioned that 15 patients 22.7% of GERD patients had no signs of esophagitis please mention how did you diagnose these patients as GERD
RE-REVIEW REPORT OF REVISED MANUSCRIPT

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Position: Editorial Board

Academic degree: MD

Professional title: Associate Professor

Reviewer’s Country/Territory: Egypt

Author’s Country/Territory: Hungary

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Reviewer chosen by: Yu-Lu Chen

Reviewer accepted review: 2023-07-20 06:08

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SPECIFIC COMMENTS TO AUTHORS

thanks for your reply and added revisions i have no further comments