

## PEER-REVIEW REPORT

**Name of journal:** *World Journal of Gastroenterology*

**Manuscript NO:** 85822

**Title:** Effect of exogenous hydrogen sulfide in the nucleus tractus solitarius on gastric motility in rats

**Provenance and peer review:** Unsolicited Manuscript; Externally peer reviewed

**Peer-review model:** Single blind

**Reviewer's code:** 03259005

**Position:** Peer Reviewer

**Academic degree:** DSc, MD, PhD

**Professional title:** Chairman, Full Professor

**Reviewer's Country/Territory:** Ukraine

**Author's Country/Territory:** China

**Manuscript submission date:** 2023-05-18

**Reviewer chosen by:** AI Technique

**Reviewer accepted review:** 2023-05-18 16:11

**Reviewer performed review:** 2023-06-02 00:55

**Review time:** 14 Days and 8 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 Grade E: Do not publish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 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

<b>Peer-reviewer statements</b>	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 "Effect of exogenous hydrogen sulfide in the nucleus tractus solitarius on gastric motility in rats" elaborates on an interesting topic. In general, it presents interesting and relevant data. I recommend the article for revision, and please take the comments into consideration, as well as the style of how the manuscript was written.

First, authors should follow IMRAD (Introduction with aim/s, Methods, Results, Discussion) approach to prepare materials. There are inconsistencies in this article when cohort description (Methods) presented before Aims (objectives) of study. I found in the article's Introduction section:

1. absent information what references used authors: [70]: The number of patients with stress-induced gastric ulcers has increased
2. I guess more appreciative used neural signaling (sure single nerve is not responsible for it) [73] The NTS is a relay nucleus of the visceral primary afferent nerve.
3. It need correction since H<sub>2</sub>S produced in animal & human: [97]: In contrast, H<sub>2</sub>S is a novel gas transmitter discovered recently, produced [98] endogenously in the brain and human organ tissues.
4. This statement needs reference: [139] while NK1 receptors are responsible for 140 neurally mediated digestive secretion.

In Methods:

1. {180} Immunohistochemical fluorescence double labeling – the present information did not reflect content.
2. the description of the selected dose for treatment was not explained scientifically

- Absent description of how was analyzed images of fluorescence photography and immunofluorescence staining data? What approach was used for evidence-based research?
- It's not correct: [181] We chose the RWIS stress model to activate neuron [25] in the results section

Authors use the statement [313] We compared gastric motility images but presented morphological data. Only the

statistic significant results should be presented. This manuscript meets the basic requirements for Original articles; however, presented some gaps should be corrected and new version should be prepared after major revision.

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**Title:** Effect of exogenous hydrogen sulfide in the nucleus tractus solitarius on gastric motility in rats

**Provenance and peer review:** Unsolicited Manuscript; Externally peer reviewed

**Peer-review model:** Single blind

**Reviewer's code:** 03259131

**Position:** Peer Reviewer

**Academic degree:** MD, PhD

**Professional title:** Associate Professor, Surgeon, Surgical Oncologist

**Reviewer's Country/Territory:** Japan

**Author's Country/Territory:** China

**Manuscript submission date:** 2023-05-18

**Reviewer chosen by:** Geng-Long Liu

**Reviewer accepted review:** 2023-06-11 23:31

**Reviewer performed review:** 2023-06-16 17:00

**Review time:** 4 Days and 17 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
Novelty of this manuscript	<input type="checkbox"/> Grade A: Excellent <input checked="" type="checkbox"/> Grade B: Good <input type="checkbox"/> Grade C: Fair <input type="checkbox"/> Grade D: No novelty
Creativity or innovation of this manuscript	<input type="checkbox"/> Grade A: Excellent <input checked="" type="checkbox"/> Grade B: Good <input type="checkbox"/> Grade C: Fair <input type="checkbox"/> Grade D: No creativity or innovation

<b>Scientific significance of the conclusion in this manuscript</b>	<input type="checkbox"/> Grade A: Excellent <input checked="" type="checkbox"/> Grade B: Good <input type="checkbox"/> Grade C: Fair <input type="checkbox"/> Grade D: No scientific significance
<b>Language quality</b>	<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
<b>Conclusion</b>	<input type="checkbox"/> Accept (High priority) <input checked="" type="checkbox"/> Accept (General priority) <input type="checkbox"/> Minor revision <input type="checkbox"/> Major revision <input type="checkbox"/> Rejection
<b>Re-review</b>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<b>Peer-reviewer statements</b>	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

Review comments WJG 85822\_reviewer. It is my great honour and pleasure to review such an interesting manuscript. The authors tried to prove that there are neurons co-expressing was used to investigate the presence of cystathionine beta-synthase (CBS) and c-Fos in the multiple signaling pathways. The nucleus tractus solitarius (NTS) is an, and the injection of NaHS into the NTS can inhibit gastric motility in rats. This effect may be mediated by or transient receptor potential vanilloid 1 (TRPV1) antagonist Capsazepine or and sensations in peripheral nerves. This includes activating neurokinin 1(NK1) receptors via nuclear factor kappa-B (NF-κB) is channel-dependent activation. This study was experimentally analyzed by using the animal models. Of course, there is a big difference between the human and the rats. However, I respect the authors' labor and the results are important. This topic is interesting and important. I recommend this manuscript for the publication of "World Journal of Gastroenterology".