

Dear Editor,

Thank you very much for your letter and advice. We have revised the manuscript as suggested and would like to re-submit it for your consideration.

We have addressed the editor's and reviewers' comments, and the amendments are highlighted. Point-to-point responses to the comments are listed below. We hope that the revised manuscript is acceptable for publication in your esteemed journal. Please do not hesitate to contact us if you have further questions.

Reviewer #1: Scientific Quality: Grade B (Very good)

Language Quality: Grade A (Priority publishing)

Conclusion: Minor revision

Specific Comments to Authors: Firstly, I would like to congratulate you by trying to add more information on this issue. I consider that your study needs to be slightly improved in some of its parts. I proceed to perform some commentaries for each manuscript section:

In the ABSTRACT:

- Line 67: in the methodology is suggested that both laringo or bronchoscopy and oesophago-gastroscopy are employed.

Answer: Thank you for your comments on our manuscript. We agree with this point.

However, because we do not have a bronchoscope in our laboratory, we could only use a gastroscope in place of a bronchoscope in the experiment.

- Line 73: why the authors selected 2 weeks for euthanasia in the study group?

Answer: According to our research results from 5 years ago, the time for the magnetic compression technique to establish TEF is 4–6 days [REFERENCE 18: Gao Y, Wu RQ, Lv Y, Yan XP. Novel magnetic compression technique for establishment of a canine model of tracheoesophageal fistula. *World J Gastroenterol* 2019; 25: 4213-4221]. The control group in this study showed that TEF was established 6–9 days after surgery. Therefore, the TEF should be established within about 10 days in the study group. Accordingly, we assume that 2 weeks is enough time for establishment of TEF in the study group. Therefore, we chose to euthanize the dogs in the study group at 2 weeks to obtain TEF specimens. Of course, the purpose of our design of T-shaped magnets was to provide researchers with more flexible options for further treatment of TEF. Therefore, anything longer than 10 days is appropriate.

In the INTRODUCTION:

- Minor changes are suggested in attached MS-Word document modified with Control Panel.

Answer: Thank you. We have applied the recommended changes.

In the MATERIAL AND METHODS section, we can mention:

- Line 157: please add information about magnetic forces of the employed devices in both groups.

Answer: Thank you. The maximum magnetic force between the daughter and parent magnets was 11 N in the control group and 10 N in the study group. We have added the magnetic forces of the employed devices in both groups in the revised manuscript. (section entitled “Magnet devices”)

- The surgical procedures are not very well described. The daughter magnet was inserted into the trachea... How? Under visual control? Until what point at the trachea? How? Please explain deeply this part of the procedure to other researchers could reproduce the experiments... The same commentary is added to figure 2 foot note.

Answer: This study involved optimization of our previous technique for building an animal model of TEF, and the placement of magnets has been described in detail in our previous article [REFERENCE 18: Gao Y, Wu RQ, Lv Y, Yan XP. Novel magnetic compression technique for establishment of a canine model of tracheoesophageal fistula. *World J Gastroenterol* 2019; 25: 4213-4221]. We agree with the importance of providing key details in the current manuscript, and we have added relevant descriptions in the revised manuscript to help readers understand our operating process and to enable other researchers to repeat our experimental process.

- Line 192: why authors elected the time of two weeks to sacrifice animals in experimental group? Why not one or three? This must be explained.

Answer: According to our research results from 5 years ago, the time for the magnetic compression technique to establish TEF is 4–6 days [REFERENCE 18: Gao Y, Wu RQ, Lv Y, Yan XP. Novel magnetic compression technique for establishment of a canine model of tracheoesophageal fistula. *World J Gastroenterol* 2019; 25: 4213-4221]. The control group in this study showed that TEF was established 6–9 days after surgery. Therefore, the TEF should be established within about 10 days in the study group. Therefore, we assume that 2 weeks is enough time for establishment of TEF in the study group. Accordingly, we chose to euthanize the dogs in the study group at 2 weeks to obtain TEF specimens.

Of course, the purpose of our design of T-shaped magnets was to provide researchers with more flexible options for further treatment of TEF. Thus, anything longer than 10 days is appropriate. We explain this further in the Discussion section of the revised manuscript. (Paragraph 4 of the “Discussion”)

- Line 199: How did time at which the magnets left the neck was observed? Periodical X-ray? Only animals coughing? Did the magnets appear in faeces?

Answer: X-rays are usually performed every other day beginning on the fourth day after surgery to determine whether the magnet has departed from its initial position. Of course, if the dog has a cough during the observation period, we will immediately take an X-ray to observe whether it has moved from the initial position. Because the magnet will enter the stomach after leaving the initial position, if observed long enough, the magnet can be seen passing through the digestive tract along with the stool. Of course, movement of the magnet from its initial position indicates that the TEF is established, and once the TEF is formed, it is extremely painful for the experimental animal. Therefore, we do not wait for the magnet to be excreted with the feces. Instead, we euthanize the experimental dog and obtain the TEF specimen. In the revised draft, we provide an additional explanation of this point. (section entitled “Postoperative care”)

- Statistical analyses. Which statistical test was used to assess the normality of the study variables?

Answer: The normality of the study variables was assessed by Shapiro-Wilk test. (section entitled “Statistical analysis”)

- Other minor changes are suggested in attached MS-Word document modified with Control Panel.

Answer: Thank you. We have applied the recommended changes.

#### RESULTS SECTION:

- Line 244: I suggest to add that TEF with T-shaped magnets are greater and with a shorter variability in their shape...

Answer: We agree and have added this information in the revised manuscript. (section entitled “Gross and histological appearance of anastomosis”)

- HISTOLOGY: very very poor information provided. Did any difference in inflammation pattern appeared? More information about histology could be presented...

Answer: We agree with your comments. However, the purpose of this experiment was to establish a new preparation method for TEF animal models, and the most intuitive basis for evaluating whether TEF is established is the discovery of fistula under gastroscopy. Accordingly, the acquisition of gross specimens provides the most convincing evidence. This study did not focus on the histological and pathological changes brought about by TEF, including the infiltration of inflammatory cells, the lung and systemic inflammatory responses, and other indicators.

- Other minor changes are suggested in attached MS-Word document modified with Control Panel.

Answer: Thank you. We have applied the recommended changes.

#### DISCUSSION SECTION:

- Line 258: What about the cost? Could authors include information about the costs of both types of magnetic devices?

Answer: The cost of a single magnet in this experiment is about \$10. We have added this information in the revised manuscript. (Paragraph 2 of the “Discussion”)

- Please add more information about the study limitations.

Answer: We have added this information in the revised manuscript. (Paragraph 5 of the “Discussion”)

- Other minor changes are suggested in attached MS-Word document modified with Control Panel.

Answer: Thank you. We have applied the recommended changes.

Newly I would like to congratulate authors for their work. Keep working in this way and trying to publish your research.

Answer: Thank you for your kind and encouraging message.