Peer Review File

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<mark>Reviewer A</mark>

The paper titled "Application and effectiveness of an improved endoscopically guided nasojejunal tube placement technique in critically ill patients: a retrospective study" is interesting. The improved endoscopically guided NJ tube placement technique is a rapid and safe procedure with excellent patient tolerance. It significantly improves the nutritional status of critically ill patients and facilitates the administration of EN. However, there are several minor issues that if addressed would significantly improve the manuscript.

1) The abstract is not sufficient and needs further modification. The research background did not indicate the clinical needs of the research focus.

Response: Thanks for your suggestion and we made modification at Line 47-51.

2) What is the biggest advantage after improvement? What are the potential impacts? Suggest adding relevant content to the discussion.

Response: Thanks for your suggestions. In the Discussion section, we have elaborated on the advantages of the improved method at line 227-236, including the speed of catheter insertion, its safety, and the subsequent improvement in the nutritional status of patients.

3) There have been many studies on enteral nutrition. What is the difference between this study and previous studies? What is the innovation? These need to be described in the introduction.

Response: Thanks for your suggestion. In our Introduction section, we examined the success rates and advantages of various NJ tube insertion techniques currently in use, while our study focuses on the refinement of endoscopy-guided methods, aiming to achieve swifter and more convenient catheter placement, thus facilitating the learning process for novice medical practitioners. We have incorporated the relevant description at line 93-99.

4) This study is a retrospective analysis, which is likely to cause some deviations in the results. It needs to be further confirmed by multi-center clinical trials.

Response: Thanks for your suggestion. Our study was a retrospective single-cohort analysis and exists some deviations, which need a further muti-center prospective study to verify. We addressed the insufficiency of the article's content at line 242-246.

5) The introduction part of this paper is not comprehensive enough, and the similar papers have not been cited, such as "A systematic review and meta-analysis of the effect of total parenteral nutrition and enteral nutrition on the prognosis of patients with acute pancreatitis, Ann Palliat Med, PMID: 34763439". It is recommended to quote this article.

Response: Thanks for your suggestion and we added this article as reference [4] shown in line 294-296.

6) How does the method of this study affect the mortality, incidence rate and nutritional status of critically ill patients? Suggest adding relevant content.

Response: Thanks for your suggestion. During the follow-up, 3 patients died due to severe primary disease and patients experienced a significant recovery in their albumin levels after 7 days of NJ treatment. Because our study was a retrospective single-cohort study, we cannot compare the impact of the improved method versus the traditional method on patient mortality and nutritional status differences. Subsequently, we will conduct a prospective experiment to assess the influence of the improved method on patient outcomes. We added some data shown in line 173-184.

<mark>Reviewer B</mark>

1) First, the title needs to indicate the outcomes and research design of this study, i.e., a retrospective cohort study.

Response: Thanks for your suggestion and we made modification in title shown in line 3-4.

2) Second, the abstract needs some revisions. The background needs to briefly describe knowledge gap on the treatment outcomes of improved endoscopically guided nasojejunal tube placement technique. The methods need to describe the inclusion of subjects, the assessment of baseline clinical characteristics, and measures of treatment outcomes. The results need to briefly describe the baseline clinical characteristics of the study sample. The current conclusion needs to be tone down since this is not a RCT without a control group.

Response: Thanks for your suggestion and we have made the corresponding addition in the abstract section at line 47-71.

3) Third, in the introduction of the main text, please analyze the limitations of traditional endoscopic approach in detail and review what has been known on its revisions. The authors need to indicate the potential clinical significance of this research focus. Response: Thanks for your suggestion. We discussed the limitations and shortcomings of the traditional endoscopy-guided NJ tube placement procedure at line 89-94, while our improved method aims to expedite and simplify the catheter placement process.

- 4) Fourth, in the methodology of the main text, please describe the inclusion criteria, assessment of baseline clinical factors, and measures of adverse events. In statistics, please describe the descriptive analysis of baseline clinical characteristics. Response: Thanks for your suggestion. We made correction in line 107-122 and line 172-175.
- 5) Finally, please consider to cite a related paper: Hegde P, Chintanaboina J. Response to the author on "Percutaneous Ultrasound Gastrostomy (PUG) overview updates" in response to our review on "An overview of percutaneous endoscopic gastrostomy (PEG) tube placement in the intensive care unit (ICU)". J Thorac Dis 2022;14(2):588-590. doi: 10.21037/jtd-2021-41.

Response: We added this reference as your suggestion shown in line 329-332.