

Authors response

Dear Editors and Reviewers:

We deeply appreciate your helpful comments to our manuscript entitled “Neuroendoscopic and microscopic trans-sphenoidal approach for resection of nonfunctional pituitary adenomas”, which are all valuable and very helpful for revising and improving the manuscript, as well as the important guiding significance to our researches. We have studied comments carefully and have made correction which we hope meet with approval. Revised portion are marked in red in the paper. The corrections in the paper and the responds to the reviewer’s comments are as flowing:

Responses to the Reviewers:

Reviewer #1

Conclusion: Accept (General priority)

Scientific Quality: Grade B (Very good)

Language Quality: Grade B (Minor language polishing)

COMMENTS: This is an important manuscript that addresses two neurosurgical approaches to resection of pituitary adenomas. The presentation of the comparison between the two neurosurgical approaches is straightforward. Clearly, this manuscript warrants publication. There are several minor issues that would be helpful to address before publication: 1.The inclusion criteria are presented, but it would be helpful to have a separate section describing exclusion criteria. The exclusions named are not adequately described. For example, the manuscript does not describe the total number of cases that were reviewed, and the number that were excluded based upon the criteria named; 2. The manuscript does not describe how the

choice of neuroendoscopy versus trans-sphenoidal resection was made. It is possible that there was systematic bias introduced when one method was chosen over the other. The only way to overcome such potential systemic bias is to have randomized allocation to the treatment groups. It does not appear that that randomization occurred; 3. The formatting of the Figures has been corrupted. It may be necessary to reinsert the figures into the manuscript for clarity; 4. In Table 3, the p value for diabetes insipidus does not show a significant digit; 5. In the Discussion, the last paragraph describes the shortcomings of the study. The most important shortcoming is the lack of randomization to the groups being compared. It would be helpful to include lack of randomization as one of the shortcomings of the study; 6. There are occasional typographical errors within the manuscript that should be corrected.

Response: Thank you for your comments and suggestions. Here we respond to your comments point by point.

1. The inclusion criteria are presented, but it would be helpful to have a separate section describing exclusion criteria. The exclusions named are not adequately described. For example, the manuscript does not describe the total number of cases that were reviewed, and the number that were excluded based upon the criteria named.

Response: According to your suggestions, we have added a separate section to describe exclusion criteria in page 7. The exclusion criteria were described as "Patients who were diagnosed with nonfunctional pituitary adenomas underwent other type of surgery. The tumors were confirmed histopathologically as functional pituitary adenomas, meningioma, craniopharyngioma or other tumors, but not the non-functional pituitary adenomas. Patients with severe cardiopulmonary dysfunction and absence of

case data were also excluded” . The total number of cases that were reviewed was 326, and 75 cases were excluded according to the exclusion criteria. So in page 8, the statements of “A total of 251 nonfunctional pituitary adenomas were included between July 2010 and September 2015” was corrected as “A total of 326 cases were reviewed between July 2010 and September 2015, and 75 cases were excluded according to the exclusion criteria. Finally, 251 cases of nonfunctional pituitary adenomas were included”.

2. The manuscript does not describe how the choice of neuroendoscopy versus trans-sphenoidal resection was made. It is possible that there was systematic bias introduced when one method was chosen over the other. The only way to overcome such potential systemic bias is to have randomized allocation to the treatment groups. It does not appear that that randomization occurred.

Response: It is true that randomization did not occurred. This is a retrospective study which was conducted on patients with nonfunctional pituitary adenomas who received resection via neuroendoscopic and microscopic trans-sphenoidal approach between July 2010 and September 2015. All patients underwent surgery before this study was conducted, so we could not have randomized allocation to the treatment groups. The lack of randomization is one of the shortcomings of our study, and we will conduct a prospective study contained randomization to reduce systemic bias in the future.

3. The formatting of the Figures has been corrupted. It may be necessary to reinsert the figures into the manuscript for clarity.

Response: We are very sorry for our negligence of the corrupted formatting of the Figures. We have reinserted all the figures and put them at the end of the manuscript.

4. In Table 3, the p value for diabetes insipidus does not show a significant digit.

Response: In Table 3, the p value for diabetes insipidus is 0.000. We have re-written this outcome and put all tables at the end of the manuscript.

5. In the Discussion, the last paragraph describes the shortcomings of the study. The most important shortcoming is the lack of randomization to the groups being compared. It would be helpful to include lack of randomization as one of the shortcomings of the study.

Response: According to your suggestions, we have added the lack of randomization as one of the shortcomings of the study and re-written this part. So the statements of “However, the shortcomings of this study were the limited sample size and bias caused by single-center analysis. In the future, multicenter samples can be used to reduce this bias and we can increase the sample size to make the research more convincing” was corrected as “However, this study had some limitations, such as the limited sample size, lack of randomization of groups and bias caused by single-center analysis. In the future, multicenter samples and randomization will be used to reduce this bias, and a multicenter prospective study of nonfunctional pituitary adenomas should be conducted to make the research more convincing” in page 12. In the meanwhile, we have placed this part in front of the last paragraph.

6. There are occasional typographical errors within the manuscript that should be corrected.

Response: We are very sorry for typographical errors. We have revised the manuscript carefully and have made corrections. On line 25, page 7, “imagin” was corrected as “imaging”. On line 16, page 10, “adenoma” was corrected as “adenomas”. In order to improve the language quality, we have the language polishing by professional English language editing companies.

We have responded all the concerns point by point proposed by the Reviewer #1. Therefore, related figures and text have been adjusted correspondingly and the changed parts in the text are indicated by red fonts. We hope that our manuscript has greatly improved and will satisfy you. Thank you again for your thorough review and precious comments.

Responses to the Editors:

Thank you for your positive and constructive comments and suggestions. We have made corrections(listed below) carefully according to your comments and suggestions. Revised portion are marked in red in the manuscript.

1. Page 1, "**Name of Journal:** *World Journal of Clinical Cases*; **Manuscript NO:** 45669; **Manuscript Type:** Retrospective Study" was added. "**Ding ZQ et al.** Trans-sphenoidal approach for nonfunctional pituitary adenomas" was added. "**ORCID number:** Zhi-Quan Ding (0000-0003-0434-4997); Sheng-Fan Zhang(0000-0002-5528-9935); Qing-Hua Wang(0000-0002-3169-7272). **Author contributions:** Ding ZQ designed the research, collected the patients' clinical data and wrote the paper; Zhang SF collected the patients' clinical data and contributed to writing the paper; Wang QH contributed to designing the research and writing the paper. All authors have read and approved the final version of this manuscript. **Institutional review board statement:** This study was reviewed and approved by the Ethics Committee of Zhujiang Hospital of Southern Medical University" was added.

2. Page 2, "**Informed consent statement:** Patients were not required to give informed consent to participate in the study because the analysis used anonymous clinical data that were obtained after each patient agreed to

treatment by written consent. **Conflict-of-interest statement:** All authors have no conflicts of interest to disclose. **Care Checklist:** Title, Page 1; Abstract, Page 4-5; Key words, Page 5; Core tip, Page 5; Introduction, Page 7; Materials and methods, Page 7-9; Results, Page 9; Conclusion, Page 9-13; Article highlights, Page 13-15; References, Page 16-17; Tables and figures, Page 18-21. **Data sharing statement:** No additional data are available" was added. Line 16, page 2, the statements of "Correspondence to: Dr. Qing-Hua Wang" was corrected as "Corresponding author: Qing-Hua Wang, MD, PhD, Chief Doctor, Professor, Surgeon". Line 21, page 2, "Email:" was deleted.

3. Page 4, a description of the background was added as "Nonfunctional pituitary adenoma is a common type of pituitary adenomas, which can lead to headache, visual field disturbance, cranial nerve damage due to increased tumor volume. Neuroendoscopic and microscopic trans-sphenoidal approaches have been widely used in the resection of non-functional pituitary adenomas. However, the clinical efficacy in neuroendoscopic and microscopic surgery is still controversial". Line 19, page 4, " Gender, age, course of disease, tumor diameter, tumor location and percentage of patients with headache, visual impairment, sexual dysfunction and menstrual disorders were contrasted between the two groups to compare the difference of preoperative data. Cure rate, symptom improvement rate, recurrence rate, the postoperative hospital stay, operating time, intraoperative blood loss and the incidence of postoperative complications were compared in order to evaluate the advantages and disadvantages of neuroendoscopic and microscopic surgery" was added. Line 30, page 4, the statements of "the two groups ($P > 0.05$)" was corrected as "neuroendoscopy group and microscopy group (82.6% vs 85.8%, $P > 0.05$; 90.6% vs 93.8%, $P > 0.05$; 5.1% vs 9.7%, $P > 0.05$)".

4. Line 7, page 5, "in postoperative hospital stay, operating time, intraoperative blood loss and the rates of diabetes insipidus and electrolyte

imbalance” was added. Line 12. page 5, the statements of “The clinical efficacy of neuroendoscopic and microscopic trans-sphenoidal approach for theresection of nonfunctional pituitary adenomas is similar” was corrected as “Neuroendoscopic and microscopic trans-sphenoidal approaches have similar clinical efficacy for the resection of nonfunctional pituitary adenomas”. Line 17, page 5, “**Words**” was corrected as “**words**”. Line 30, page 5, “Ding ZQ, Zhang SF, Wang QH. Neuroendoscopic and microscopic trans-sphenoidal approach for resection of nonfunctional pituitary adenomas.

World J Clin Cases 2019; In press” was added.

5. Line 11, page 9, “Figures 1-4” was corrected as “Figures 1”.

6. In page 13-15, the part of “ARTICLE HIGHLIGHTS” was added.

7. All figures and tables have been put at the end of the manuscript. We have explain all the abbreviations in the figures and tables.

We appreciate for Editors/Reviewers warm work earnestly, and hope that the corrections will meet with approval. Once again, thank you very much for your comments and suggestions.

Best regards,

Zhi-Quan Ding