Answering reviewers

Comment 1: The English needs to be improved.

Reply 1: The manuscript has been edited for English language by a native English speaking medical editor at MedE Medical Editing Group. The edited paper has reached grade A in language evaluation for SCI journals.

Changes in the text: The editorial certificate has been submitted.

Comment 2: Add the unique of this study compared to other studies discuss the same issue

Reply 2: TAMIS and EMR are both good choices for resection of benign lesions and early cancers in the rectum. However, no studies had compared the outcome of TAMIS and EMR.

Changes in the text: We introduced the uniqueness in the *BACKGROUND* and *INTRODUCTION*.

Comment 3: Since this is a retrospective study, we understand that there was no randomization. However, were any criteria used to determine which method was utilized? Otherwise the findings simply represent the prejudices of the surgeons who were involved. / What were the clinical presentations of the patients? Did the clinical presentations influence decisions by the surgeons with regards to the method of resection that was chosen? / These appear to be small lesions. What were the sizes of the benign compared to the malignant lesions? Could the methods to be chosen be set simply by having an upper size limit for performance of an endomucosal resection?

Reply 3: As a retrospective study, avoiding major bias was a focus of the study. The prejudices of the surgeons will directly affect the reliability of the results in this study. We eliminated this bias by matching and ensuring that the baseline patient characteristics in the two groups were similar. We selected patients who were asymptomatic or only had hematochezia, the diameter of the lesion was ≤ 3 cm, and the distance of the lesion from the anal margin was 5-15 cm.

Changes in the text: We added a paragraph to answer these questions at the end of the *INTRODUCTION*.

Comment 4: Table 1 needs to be checked. It is not possible presently to delineate Benign versus Malignant Pathology. What were the types of tumors in "Malignant Pathology"?

Reply 4: Benign tumors refer to rectal adenoma and rectal polyps; malignant tumor refers to rectal carcinoid.

Changes in the text: We added a note to table 1.

Comment 5: The blood losses are similar but one group had "hemorrhage". What blood volume loss was used to define hemorrhage? Was this during the surgery or within a determined length of time after surgery?

Reply 5: Hemorrhage was defined as self-limited hematochezia and melena that did not require endoscopic hemostasis after surgery. Post-EMR Bleeding was defined when following parameters were satisfied: (i) occurred up to 30 days after EMR, (ii) hematemesis, melena or dizziness, (iii)required endoscopic hemostasis, (iv) hemoglobin loss >2 g/dl.

Changes in the text: We defined "hemorrhage" and added a note to table 3.

Comment 6: What were the indications for "re-operation"? What operations were performed in "re-operation"?

Reply 6: Re-operation included intestinal perforation repair, endoscopic clip hemostasis and radical resection of rectal cancer.

Changes in the text: We added a note to table 3 and gave explanation in *outcome evaluation*.

Comment 7: Add more on the basic of this disease in the introduction

Reply 7: We selected patients who were asymptomatic or only had hematochezia, the diameter of the lesion was ≤ 3 cm, and the distance of the lesion from the anal margin was 5-15 cm.

Changes in the text: We added a paragraph at the end of the INTRODUCTION to introduce details of selected patients.

Comment 8: Update of references as most of references are old

Reply 8: We had updated the references. Now a total of 24 references are cited, including 6 references published in the last 3 years and 10 references published in the last 5 years.

Changes in the text: N/A

Comment 1:
TAMIS and EMR should not be abbreviated in the Title. The Term "early rectal cancer" cannot be used in the title. The authors are specifically referring to "Rectal Carcinoid Tumors". Reply 1: We changed the title to "Transanal Minimally Invasive Surgery versus Endoscopic Mucosal Resection for rectal benign tumors and rectal carcinoids： A retrospective analysis".

Comment 2:
2. TAMIS and EMR should be initially spelled out in the Abstract prior to using these abbreviations. Abstract, final sentence should read: "EMR group (5/53 or 9.4% versus 0% in TAMIS; P=.036)." Abstract, Conclusion: the authors have no data to support TAMIS for large diameters lesions (again there are no early rectal cancers) since the mean difference between the two groups in this study was only 0.33 cm. These appear to be small lesions and the authors have not presented data comparing the sizes of the benign polyps compared to the malignant lesions. The same issue is present in the Core Tip. Reply 2: We spelled out TAMIS and EMR at the beginning of the Abstract, revised conclusion and core tip.

Comment 3:
3. The descriptions of the two procedures would be more clear by providing a side-by-side cartoon depicting the two operative approaches. Reply 3: We inserted three photos to describe the procedure of TAMIS more clearly. We didn't insert photos of EMR because it is so common that it doesn't need to be explained.

Comment 4:
Under Surgical Procedures: "a low-slag, liquid diet" is undefined. Next sentence: "lithotripsy position". This is suggested in the literature to be the Prone Position. Is this what is meant or are the authors referring to the Lithotomy Position? Reply 4: We had changed the "lithotripsy position" to "lithotomy position" in the manuscript. The diet was prepared by Department of Nutrition, The Fifth People's Hospital of Shanghai, Fudan University, including milk, egg drop soup, race water, red bean soup, mashed fish soup, mashed chicken soup, mashed vegetable soup and lotus root starch.

Comment 5: I would suggest double checking the description of the results. In Surgical-related outcomes: I believe that the authors meant to say in sentence 1 "EMR rather than for TAMIS". Reply 5: We corrected this error.

Comment 6: In Results the authors provide no information on the Rectal Carcinoid Tumors. Were any of these High Grade NeuroEndocrine Tumors? Were the sizes of these tumors all >10 mm? This information may be important for choosing to NOT use EMR. Reply 6: We provided the

information on the Rectal Carcinoid Tumors in the Table 1, and revised corresponding parts in the Results and Discussion.
Comment 7:
7. Conclusion, final sentence: again "It (TAMIS) is more suitable … tumors with a large diameter". Reply 7: We revised Conclusion.

Comment 8: Table 3, definition of Post-EMR Bleeding: hematemesis. How is this possible after the removal of a rectal tumor? Reply 8: We changed "Post-EMR Bleeding" to "Post-operative Bleeding".