

**Reviewer #1:**

“Thank you for producing such piece of work. I have only few remarks: 1) In the method, you mentioned “We selected 32 female patients, who were divided into 8 groups of 4 patients...” could you please mention the selection criteria and over how much period. 2) Also, I suggest when utilising a single-digit letter number to write in full letters: for example two instead of 2. 3) In the introduction: - “Obesity has become one of the most important public health problems in the United States and in many other resource-rich countries, as well as in transitional economies”. Please add a reference here. In the study population: “Female patients with class I or II obesity were recruited by means of an” I suggest changing the word “by means” by “Utilising” or rewording it differently 4) In the results please change when you are referring to p-value to small “p” and not capital 5) Could you also add the COSNORT flowchart within the manuscript?”

**ANSWER:**

Dear reviewer, we would like to thank you first for your time spent evaluating our manuscript and for the comments.

For additional comments:

- 1) We decided to select only women who met the inclusion criteria of the work exposed in the methodology. For the selection of these patients, the project was publicized in the hospital lobby and the hospital's endocrinology sector, and patients interested in participating in the project were referred for screening in the endoscopy sector. This selection started in January 2018 and ended in November 2018.
- 2) Right. We made the modification as suggested. Thank you!

- 3) Great observation! The reference in the excerpt: "Obesity has become one of the most important public health problems in the United States and in many other resource-rich countries, as well as in transitional economies" is the same as in the excerpt "The increase in the prevalence of obesity has resulted in increases in the incidence of associated diseases such as diabetes and hypertension. Also, I made the requested change by changing the word "by means" to "Utilizing".
- 4) Excellent suggestion. We have corrected. Thank you!
- 5) Thanks for the comment. We have added the CONSORT flow diagram in the appendix

*Dear reviewer, we hope that we have answered all your questions and hope that your new analysis is positive. We look forward to your response and are available for any further questions.*

**Reviewer #2:**

"This study evaluated the results of fecal microbiota transplantation (FMT) in patients with metabolic syndrome, which is innovative. This is a randomized, single-blind, placebo-controlled trial, comparing FMT and sham operation in patients with metabolic syndrome. The main end point was the change of intestinal microflora. Conclusion: There is no significant difference in biochemical or anthropometric parameters between the two groups of subjects. However, there were significant differences in the composition of microbiota between the placebo groups after surgery. So far, the clinical results related to FMT are still uncertain. The research is innovative to some extent, but the

amount of data is small, the research content is relatively thin, and the key factors are not well understood. Question: 1. Some studies have confirmed that FMT can affect the flora, blood sugar and other indicators. Has the donor's flora been tested in the study? This may be the most important factor affecting the research results. 2. Whether the diet of the population in this study has been clearly defined has also become an important factor affecting the research results. 3. On the day of donation, the microbiota solution was prepared by diluting 200g of donor feces into 500ml sterile saline. Stir the solution, then filter the supernatant and transfer it to a sterile bottle. 16 After preparation, the microbiota solution was immediately transported from the laboratory to the endoscope center. 4. All patients underwent upper gastrointestinal endoscopy. In each group, two patients were randomly assigned to receive FMT, and the other two patients received saline infusion. If the bacterial colony separation time is too long, it will cause a large number of bacterial colony deaths. Is automatic machine used for separation? 5. Obesity and diabetes are closely related to the small intestinal flora. Colonoscopy is not suitable for transplantation. It should be transplanted through the middle digestive tract, which may have different results.”

#### **ANSWER:**

We would like to thank the reviewer for the time in reading our article, evaluating it and for the compliment made in the commentary.

Issues raised:

1. The evaluation of the donor's microbiota was included before the first transplant was performed, and subsequent evaluations were not carried out. Figures 1a and 1b and figure 3 have added the graphic assessment of the donor's microbiota.
2. The diet was guided by a nutritionist for each patient before the procedure,

and appointments were held during the follow-up, however, the diet was not followed by any patient during the follow-up year, making it not possible to properly evaluate this data.

3. After preparation, the microbiota solution was immediately transported from the laboratory to the endoscope center. The total transport time was less than a maximum of 30 minutes in all samples.

4. The preparation of the intestinal microbiota was based on the transplantation protocol carried out in the study Van Nood E, Vrieze A, Nieuwdorp M, et al. Duodenal Infusion of Donor Feces for Recurrent *Clostridium difficile*. *N Engl J Med* 2013;368(5):407-415.

In this case, two samples were prepared in the laboratory and sent under refrigeration for transplantation. This process took less than 30 minutes. The loss of bacterial colonies is an inherent factor of the preparation, and this loss is reduced due to the speed between the preparation and the procedure and conservation of the samples.

5. Thanks for the note. The procedures were performed using a colonoscope, but introduced through the mouth after sedation of the patient and progression of the device after the Tritz angle, with the solution infused at this level.

We thank you again we hope your approval.

**Company Editor-in-chief:**

“I have reviewed the Peer-Review Report, full text of the manuscript, and the relevant ethics documents, all of which have met the basic publishing requirements of the World Journal of Hepatology, and the manuscript is conditionally accepted. I have sent the manuscript to the author(s) for its revision according to the Peer-Review Report, Editorial Office’s comments and the Criteria for Manuscript Revision by Authors.