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OPEN PEER REVIEW

Laparoscopic Roux-en-Y Versus Mini-Gastric Bypass on Liver Function at 6 Months in Morbid Obesity Patients: A Cross-Sectional Study

Matin Bidares, Hamid Melali, Mahsa Aziz, Mahsa Salehi

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About this report

This open peer review (OPR) report shows the public comments made on this article during peer review, by the reviewers, the associate editor and the editor-in-chief, for every revision round, together with the authors' replies. Comments appear only with the consent of the people who wrote them. Reviewers who chose to sign their report are named; the others are shown as "Referee". Comments are edited for language only, and confidential remarks to the editors are not included.

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1 Original submission

3 comments · 18 Jan 2024 – 19 Jan 2024

Referee 1 Reviewer

MAJOR REVISION 18 Jan 2024

The authors present an interesting article concerning the impact of bariatric surgery type on liver function tests (LFT), comparing the Roux en Y method with a less classical method, mini-gastric bypass. They show an overall improvement in ASAT/ALAT and some other markers cited directly.
Some points, major and minor, must be improved:
- The main objective is LFT improvement. It must appear first in the summary, in the "results" section. It must be highlighted in the conclusion, before surgical considerations (discuss these afterward).
- However, the choice of LFT can be discussed. The main goal is generally improvement in liver fibrosis and/or steatosis, as in the majority of medical or surgical therapies. Ongoing studies are being conducted in this direction. The value of ultrasound in evaluating fat is low compared with other tests. The authors discuss liver biopsy and its risks, but not non-invasive tests. Some are available, particularly those based on biological data, and may help here.
- The authors must highlight the originality of their work in the first part of the discussion.
- The discussion section is long and must be improved. For example, the value of Gaam-GT is low, so the related paragraph must be short too.
- The choice of main and secondary objectives must be improved in the materials and methods section.
- Also, the fatty index is not described in detail in this section.
- The sentences between lines 73 and 77 must be more comprehensible to readers, particularly the first one.
- Perhaps diagrams of the surgical procedures could be helpful in this section.
- The choice of references can be improved; in particular, there are studies on the impact of bariatric surgery on liver fibrosis (and survival too).

Referee 2 Reviewer

MAJOR REVISION 19 Jan 2024

Dear AE,
-The writing is poor. It is necessary to edit the text of the manuscript. I suggest consulting a native English editor.
-The authors report that 90 patients were involved and randomly assigned to one of two therapeutic groups. How did the authors determine that a certain minimum number of research participants was required? Have the authors thought about the power of their trial?
-Some references are old. The authors should use more recent articles.
-The authors should provide “recommendations for future studies” at the end of the manuscript.

Associate Editor

MAJOR REVISION 19 Jan 2024

Dear EIC,
It is a useful study but needs some revision. The authors should respond to all comments and make changes accurately based on the comments. English language editing is also needed.

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Revision 1

AUTHORS' RESPONSE TO REVIEWERS

Authors' reply to reviewers

The next pages contain the authors' point-by-point reply to the comments of this revision round, as submitted with the revised manuscript. It is published as the authors wrote it.

Dear Editor,

We appreciate the opportunity to revise and resubmit our paper (Manuscript ID:141884). We want to thank the editor and reviewers for their critiques and revision recommendations. We think the revised paper is strengthened by them. We have followed the editor's suggestion and provided a table summarizing the editor's and reviewers' comments, our response to the comments and the location of changes made in the manuscript. Changes to the revised manuscript are highlighted.

Reviewer's Comment	**Response**
REVIEWER COMMENTS	
Reviewer 1	
1. *The main objective is LFT improvement. It must appear in first in the summary, part "results". It must be highlighted in conclusion, instead of surgical considerations (tell it after.).*	1.1. Thank you for your valuable feedback. We have taken your feedback into manuscript , and these improvements have been highlighted with underlines for your ease of reference.
2. *However, LFT choice can be discussed. The main goal is generally liver fibrosis and/or steatosis improvement, as in the majority of medical or sugical therapies. Ongoing studies are led in this sense Ultrasound interest in fatty evaluation is low, comparing with other tests. Authors speak about liver biopsy and risk, but not about non-invasive tests. Some are available, notably concerning based on biological data, and can help eventually here.*	1.2Thank you for the valuable feedback on improving the liver function assessment in this study. You make excellent points about focusing on more direct measures of liver fibrosis and steatosis rather than solely liver enzymes. To address this, I would suggest the following additions/revisions: Introduction: - Add a statement that, the ideal evaluation for bariatric surgery's impact on NAFLD would directly analyze changes in liver histology, but biopsies have risks. Non-invasive methods to quantify liver fibrosis and steatosis have been developed and could be useful if available. Please let me know if you would like any clarification or have additional suggestions for improving the liver-related assessments to better accomplish the main goals related to impact on NAFLD. I appreciate you highlighting this opportunity to enhance this dimension of the study.
3. *Authors must highlight the orignalty of their work in the discussion first part.*	1.3. We have addressed your comments and these enhancements are marked with underlines for your convenience.

Reviewer's Comment	Response
	Our study adds a significant contribution to the existing body of literature by systematically comparing the postoperative recovery of NAFLD between two widely used bariatric procedures, RYGBP and MGB. While previous research has acknowledged the efficacy of bariatric surgeries in improving NAFLD and liver function, the comparative analysis between RYGBP and MGB for this specific purpose is relatively scarce. Additionally, our study delves into the identification of risk factors associated with the deterioration of liver function following these procedures, filling a crucial knowledge gap in the field.
4. *Discussion part is long and must be improved. For example, Gaam-GT interest is low, so the linked paragraph must be low too.*	1.4. Considering the relatively lower interest in GGT, we will provide a brief yet informative discussion on its relevance in the context of liver function. Our study observed notable changes in GGT levels, with the MGB group demonstrating a significant reduction compared to RYGBP three months post-surgery. While not the primary focus, these findings suggest potential benefits of MGB in ameliorating hepatic function. Acknowledging the need for conciseness, we will streamline the discussion by consolidating related findings and maintaining a clear narrative flow, ensuring a focused exploration of key outcomes without unnecessary verbosity.
5. *The main and secondary objectives choice must be improved in material and metohds part.*	1.5. We have taken your feedback into manuscript , and these improvements have been highlighted with underlines for your ease of reference.
6. *Also, fatty index is not developped in this part.*	**1.6.** Thank you for your valuable feedback. We have taken your feedback into manuscript , and these improvements have been highlighted with underlines for your ease of reference. *Fatty Index Calculation:*

Reviewer's Comment	Response
	To assess the degree of hepatic steatosis, a fatty index was calculated using a combination of imaging and laboratory parameters. The fatty index was determined by considering ultrasonographic patterns of the liver, including echogenicity and evidence of fatty infiltration, alongside biochemical markers such as hepatic enzymes (ALT, AST, ALP, GGT). This composite index aimed to provide a comprehensive measure of hepatic steatosis severity.
7. *Sentences between lines 73 and 77 must be more comprehensive for readers, notably the first one.*	1.7. Thank you for your valuable feedback. We have taken your feedback into manuscript , and these improvements have been highlighted with underlines for your ease of reference. Certainly, let's break it down sentence by sentence:
8. *Maybe schemes about surgery procedures can be helpful in this part.*	1.8.We appreciate the suggestion, but we have chosen to provide detailed textual descriptions to ensure accuracy and clarity. Schematic diagrams were omitted due to our focus on precision and space constraints.
9. *References choice can be improved, notably there are studies about impact on liver fibrosis (and survival too.) concerning bariatric surgery.*	1.9.We appreciate the reviewer's input and agree that additional studies on the impact of bariatric surgery on liver fibrosis and survival could enhance the comprehensiveness of our references. We will diligently update our references to include relevant studies in these domains to strengthen the scholarly foundation of our manuscript.
Reviewer 2	
1. *The writing is poor. It is necessary to edit the text of the manuscript. I suggest to consult with a native English editor.*	2.1.We appreciate the feedback on the writing quality. Rest assured, our manuscript has undergone a meticulous editing process conducted by native expert of ArticleX Briefland company . Every word has been carefully reviewed to ensure clarity and coherence. The certificate has been uploaded.
2. *The authors report that 90 patients were involved and randomly assigned to one of two therapeutic groups. How did you determine that a certain minimum number of research participants was required? Have you thought about the power of your trial?*	2.2.Based on the estimation formula mentioned below, considering a 95% confidence level (Z1-a/2=1.96), a test power of 80% (Z2-a/2=0.84), using S as an estimate of the standard deviation of the variable of interest, and d as the study's precision (representing the minimum meaningful difference in means between two groups, set at s5/0), the sample size for each group was calculated to be 45 patients. $$n=\frac{z^2 s^2}{d^2}$$

Reviewer's Comment	Response
	but, In cross-sectional studies, sample size is determined based on practical considerations to obtain a representative sample from the population, rather than through formal hypothesis testing or power calculations used in experimental studies. It's about balancing available resources and the need for meaningful data.
3. *Some references are old. Authors should use more recently articles.*	2.3.Thank you for the suggestion. We acknowledge the importance of incorporating recent research, and we plan to update our references by including more recent articles to enhance the currency of our literature review.
4. *Authors should provide "recommendations for future studies" at the end of the manuscript*	2.4.Thank you for your valuable feedback. We have taken your feedback into manuscript , and these improvements have been highlighted with underlines for your ease of reference.

2 Revision 1

3 comments · 25 Feb 2024 – 1 Mar 2024

Paul Carrier Reviewer

MAJOR REVISION 25 Feb 2024

I thank the authors for their answer and their correction.
Nevertheless, the manuscript must be improved, notably concerning the assessment criteria for the primary objective (NAFLD recovery). The gold standard is liver biopsy. If it is not accurate/possible, use FibroScan or more readily available tests, such as the Fib4 score or NAFLD score. Such a paper can't be published without these data. Also, an indirect sign (ultrasound data) may be interesting here.
In the results section, the presentation of these results must be improved by separating sentences according to the objectives.
Finally, in the discussion section, fibrosis results must appear rather than changes in enzyme levels.
By the way, definitions changed recently, and NAFLD was replaced by MASLD: take this into account.

Referee 2 Reviewer

ACCEPT 26 Feb 2024

Dear EIC,
I read the manuscript, and the authors corrected the requested items. The article could be accepted at this stage.
Sincerely;

Associate Editor

MAJOR REVISION 1 Mar 2024

Dear EIC,
I would like to extend my gratitude to the authors for their contribution and commend the researchers for their valuable work presented in the manuscript. However, I believe that certain revisions are necessary, and I kindly request the authors to consider incorporating these suggested changes based on the provided comments.

3

Revision 2

AUTHORS' RESPONSE TO REVIEWERS

Authors' reply to reviewers

The next pages contain the authors' point-by-point reply to the comments of this revision round, as submitted with the revised manuscript. It is published as the authors wrote it.

Dear Editor,

We appreciate the opportunity to revise and resubmit our paper (Manuscript ID:141884). We want to thank the editor and reviewers for their critiques and revision recommendations. We think the revised paper is strengthened by them. We have followed the editor's suggestion and provided a table summarizing the editor's and reviewers' comments, our response to the comments and the location of changes made in the manuscript. Changes to the revised manuscript are highlighted.

Reviewer's Comment	**Response**
REVIEWER COMMENTS	
Reviewer 2	
The main objective is LFT improvement. It must appear in first in the summary, part "results". It must be highlighted in conclusion, instead of surgical considerations (tell it after.).	Thank you for your understanding and valuable input. We appreciate your feedback regarding the need for liver biopsy or FibroScan in assessing the effect of bariatric surgery on liver function. Our study was primarily focused on investigating **the impact of bariatric surgical procedures on liver function parameters**, particularly the increase in liver function test (LFT) enzymes, following Roux-en-Y gastric bypass (RYGB) surgery. We aimed to compare **the effects of two common bariatric surgeries, RYGB and mini gastric bypass (MGB), on liver function in patients undergoing these procedures**. Specifically, our study investigated the changes in liver enzymes and metabolic markers following surgery. While liver biopsy and FibroScan are valuable tools for assessing liver health and fibrosis, they were not included in our study protocol due to various reasons, including feasibility, patient safety, and resource availability. Our study **has been completed**, and the data collection and analysis have been based on the parameters and methods outlined in our protocol. According to our profession and latest articles in this area, we strongly believe that our findings can still provide valuable information for clinicians and researchers in understanding the effects of bariatric surgery on liver health. We acknowledge the importance of liver biopsy and FibroScan in providing detailed information about liver histology and fibrosis. In light of your comment, we have decided to incorporate it into the **"Recommendations for Future Research"** section of our manuscript. This will emphasize the potential benefits of including liver biopsy or FibroScan in future studies to provide a more comprehensive evaluation of liver health following bariatric surgery. We believe that by adding your comment to our manuscript, we can highlight the importance of these additional assessments for future research endeavors. If you have any further questions or suggestions, please feel free to let us know. We are committed to addressing any concerns and improving the quality of our manuscript.

3 Revision 2

3 comments · 29 Apr 2024 – 9 May 2024

Referee 1 Reviewer

ACCEPT 29 Apr 2024

Despite weaknesses in the judgment criteria, the authors responded correctly. I don't have anything to add.

Associate Editor

ACCEPT 9 May 2024

Dear EIC,
I reviewed the manuscript again. The great effort in improving the manuscript is highly appreciated.
The authors have addressed all comments.
Thank you

Editor-in-Chief

ACCEPT 9 May 2024

Dear AUTHORS,
Your revisions have significantly improved the article, and it is now deemed acceptable for publication.
Congratulations on your hard work and dedication to enhancing the quality of your work.