

## PEER-REVIEW REPORT

**Name of journal:** *World Journal of Gastrointestinal Surgery*

**Manuscript NO:** 78068

**Title:** Feasible management of Median Arcuate Ligament Syndrome in Orthotopic Liver Transplantation Recipients

**Provenance and peer review:** Unsolicited Manuscript; Externally peer reviewed

**Peer-review model:** Single blind

**Reviewer's code:** 05251800

**Position:** Peer Reviewer

**Academic degree:** MD

**Professional title:** Doctor

**Reviewer's Country/Territory:** Norway

**Author's Country/Territory:** China

**Manuscript submission date:** 2022-06-06

**Reviewer chosen by:** AI Technique

**Reviewer accepted review:** 2022-06-06 10:10

**Reviewer performed review:** 2022-06-22 00:50

**Review time:** 15 Days and 14 Hours

<b>Scientific quality</b>	<input type="checkbox"/> Grade A: Excellent <input checked="" type="checkbox"/> Grade B: Very good <input type="checkbox"/> Grade C: Good <input type="checkbox"/> Grade D: Fair <input type="checkbox"/> Grade E: Do not publish
<b>Language quality</b>	<input type="checkbox"/> Grade A: Priority publishing <input checked="" type="checkbox"/> Grade B: Minor language polishing <input type="checkbox"/> Grade C: A great deal of language polishing <input type="checkbox"/> Grade D: Rejection
<b>Conclusion</b>	<input type="checkbox"/> Accept (High priority) <input type="checkbox"/> Accept (General priority) <input checked="" type="checkbox"/> Minor revision <input type="checkbox"/> Major revision <input type="checkbox"/> Rejection
<b>Re-review</b>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

**Peer-reviewer  
statements**

Peer-Review: [ ☒ ] Anonymous [ ☐ ] Onymous

Conflicts-of-Interest: [ ☐ ] Yes [ ☒ ] No

## SPECIFIC COMMENTS TO AUTHORS

In this retrospective study, shu-Xuan Li and the co-authors investigated the impact of stenosis of the celiac trunk by the median arcuate ligament (MAL) in the recipients of orthotopic liver transplantation (OLT). They retrospectively identified 8 OLT recipients with suspected MALS among 288 consecutive patients between January 2017 and July 2020. Only 1/8 patients developed hepatic artery thrombosis (HAT) with a consequent emergency liver transplantation. The discussion section mentioned a reference (17) with 50% HAT among the OLT recipients with MALS. The authors have treated 7/8 with MALS with individually selected arterial anastomoses without needing MAL release. They rapport none of the patients (7/8) with HAT with the choice of their anastomosis technique. However, the study limitations mention a small number of patients with MALS and therefore cannot draw any strong recommendations from their study. The manuscript is well-written and easy to read and understand. The manuscript has relevant Figures and Tables to support their results and conclusions; however, they must be improved. Additional comments: 1- Abstract: The statistical methods (descriptive?) should be mentioned in the method section. 2- Introduction: External compression of the celiac artery by the median arcuate ligament is called median arcuate ligament syndrome (MALS) only when it is accompanied by symptoms like postprandial pain, weight loss, and small meals. Had any of the patients with the external compression of the celiac artery symptoms of MALS? 3- Material and methods: Were there any recipients with atherosclerotic stenosis of the celiac trunk? What was the outcome of OLT eventually in such patients? 4- The authors have not mentioned if the patients with CTA verified external compression of the celiac artery

had symptoms of MALS? Besides, how were the stenosis grade criteria defined? They should already here use their reference 26 for the classification of MALS. 5- How was a 'satisfactory' blood flow defined with Doppler ultrasound? 6- Release of the celiac trunk by division of the median arcuate ligament syndrome is a relatively minor surgical procedure with very low complications risks compared to the other complications risks of OLT. Why did the surgeons not choose to release the MAL when one of their references, 17, had good results of the MAL during OLT? 7- Results: Ultrasound criteria for diagnosing HAT should be stated in the method section. 8- CT is written twice in Figure 3A. Probably for the donor (graft), the CTd abbreviation can be used for the sake of better understanding for the readers? 9- In figures 2A and 2B, the authors should use markers to indicate different anatomic structures. 10- The authors should mention the Doppler ultrasound criteria for determining splenic artery steal syndrome. 11- Figure 3F illustrates preserved splenic artery? Do authors mean to say "without preservation of either GDA or splenic artery? 12- Discussion: Reference 26 has just 12 patients with MALS and is not a solid reference to draw any conclusion, let alone an applied classification of MALS. What if the patient has  $\leq 50\%$  stenosis due to external compression by MAL and still a flow velocity above 350 cm/s and no symptoms of MALS? 13- Endovascular treatment of MALS is contraindicated due to the risk of stent fracture due to persistent external compression from the MAL. See "Bjork M, Koelemay M, Acosta S, et al. Management of the diseases of mesenteric arteries and veins. Clinical practice guidelines of the European Society of Vascular Surgery (ESVS). Eur J Vasc Endovasc Surg 2017; 53: 460-510". 14- There are different approaches described for the release of MAL. In non of these approaches does one comes closer to the pancreaticoduodenal artery. The reported bleedings are usually from the left gastric artery or the inferior phrenic arteries, which often have origin from the celiac trunk. If the word limitation allows, can the authors describe their technique of MAL release in

the method section shortly? 15- It would have been helpful for the readership if the authors could give at least descriptive statistics in Table 1 and Table 2.

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**Peer-review model:** Single blind

**Reviewer's code:** 02941357

**Position:** Editorial Board

**Academic degree:** MD, PhD

**Professional title:** Surgeon

**Reviewer's Country/Territory:** Netherlands

**Author's Country/Territory:** China

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**Reviewer chosen by:** AI Technique

**Reviewer accepted review:** 2022-06-27 10:12

**Reviewer performed review:** 2022-07-01 06:45

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Scientific quality	<input type="checkbox"/> Grade A: Excellent <input type="checkbox"/> Grade B: Very good <input checked="" type="checkbox"/> Grade C: Good <input type="checkbox"/> Grade D: Fair <input type="checkbox"/> Grade E: Do not publish
Language quality	<input type="checkbox"/> Grade A: Priority publishing <input type="checkbox"/> Grade B: Minor language polishing <input checked="" type="checkbox"/> Grade C: A great deal of language polishing <input type="checkbox"/> Grade D: Rejection
Conclusion	<input type="checkbox"/> Accept (High priority) <input type="checkbox"/> Accept (General priority) <input checked="" type="checkbox"/> Minor revision <input type="checkbox"/> Major revision <input type="checkbox"/> Rejection
Re-review	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

**Peer-reviewer  
statements**

Peer-Review: [ ☐ ] Anonymous [ ☒ ] Onymous

Conflicts-of-Interest: [ ☐ ] Yes [ ☒ ] No

## **SPECIFIC COMMENTS TO AUTHORS**

Hereby I would like to comment on the article entitled: “Feasible management of Median Arcuate Ligament Syndrome in Orthotopic Liver Transplantation Recipients” by the authors Shu-xuan Li et al. The authors present a few cases with treatment for MALS in Orthotopic liver transplantation. The authors need to be acknowledged for their efforts describing these rare cases. In my view, the data show that the surgical management of patients with MALS that the authors followed is feasible. Awareness is the biggest gain and the flow to the liver needs to be preserved. I do not think that it can be concluded that either method (preservation of collateral circulation via the GDA vs MAL division) is superior. This needs to be discussed better and the conclusions need to be adapted. Furthermore , I think the readability of the manuscript will be improved when the text is reviewed and adjusted by a native English speaker.

## RE-REVIEW REPORT OF REVISED MANUSCRIPT

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**Reviewer's code:** 02941357

**Position:** Editorial Board

**Academic degree:** MD, PhD

**Professional title:** Surgeon

**Reviewer's Country/Territory:** Netherlands

**Author's Country/Territory:** China

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**Reviewer chosen by:** Han Zhang

**Reviewer accepted review:** 2022-07-27 21:56

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**Review time:** 1 Hour

<b>Scientific quality</b>	<input type="checkbox"/> Grade A: Excellent <input type="checkbox"/> Grade B: Very good <input checked="" type="checkbox"/> Grade C: Good <input type="checkbox"/> Grade D: Fair <input type="checkbox"/> Grade E: Do not publish
<b>Language quality</b>	<input type="checkbox"/> Grade A: Priority publishing <input checked="" type="checkbox"/> Grade B: Minor language polishing <input type="checkbox"/> Grade C: A great deal of language polishing <input type="checkbox"/> Grade D: Rejection
<b>Conclusion</b>	<input type="checkbox"/> Accept (High priority) <input checked="" type="checkbox"/> Accept (General priority) <input type="checkbox"/> Minor revision <input type="checkbox"/> Major revision <input type="checkbox"/> Rejection
<b>Peer-reviewer</b>	Peer-Review: <input checked="" type="checkbox"/> Anonymous <input type="checkbox"/> Onymous



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statements

Conflicts-of-Interest: [ ] Yes [Y] No

## **SPECIFIC COMMENTS TO AUTHORS**

Dear authors, thank you for the revisions made. I have no further comments.