

## PEER-REVIEW REPORT

**Name of journal:** *World Journal of Hepatology*

**Manuscript NO:** 75705

**Title:** Iohexol plasma and urinary concentrations in cirrhotic patients: A pilot study

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

**Peer-review model:** Single blind

**Reviewer's code:** 06151472

**Position:** Peer Reviewer

**Academic degree:** MD

**Professional title:** Doctor

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

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

**Manuscript submission date:** 2022-03-16

**Reviewer chosen by:** AI Technique

**Reviewer accepted review:** 2022-03-23 15:09

**Reviewer performed review:** 2022-03-24 07:00

**Review time:** 15 Hours

<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 Grade E: Do not publish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 type="checkbox"/> Accept (General priority) <input type="checkbox"/> Minor revision <input checked="" type="checkbox"/> Major revision <input type="checkbox"/> Rejection
<b>Re-review</b>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
<b>Peer-reviewer</b>	Peer-Review: <input checked="" type="checkbox"/> Anonymous <input type="checkbox"/> Onymous

statements

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

## SPECIFIC COMMENTS TO AUTHORS

This was a pilot study which investigated the role of iohexol as a marker of renal function in a small group of patients with cirrhosis. The topic is of interest because, as the Authors stated in the Introduction section, serum creatinine may not adequately reflect the true renal function in patients with cirrhosis. Moreover, creatinine has been used in several fields in cirrhosis, for instance into the MELD score (or MELD NA score) which is widely used to grant prioritization to liver transplantation. The main finding of this study was that iohexol concentrated in the urines with an inverse behaviour of the plasma curves, confirming the fact that this molecule is filtered by the glomerulus, and not reabsorbed or secreted by the tubule. However, the whole dose of infused iohexole was not found in urines in 100% patients. Therefore the study did not fully elucidate if iohexole may be a good marker of renal function in cirrhosis. - I suggest to add a control group made of patients without cirrhosis - The hypothesis of iohexole concentration in ascites should be confirmed by including a large number of patients with ascites undergoing paracentesis - The Authors said that urine collection was quite difficult for some patients, and could be difficult in clinical practice. I think that this could be a minor issue, for instance using an urometer in hospitalized patients. - Did the patients withdraw diuretics during measurements? - I appreciate the section where the Authors clearly described pitfalls of this study, which is a pilot experience needing further investigations. - Statistical analysis is good as well as tables and figures

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**Peer-review model:** Single blind

**Reviewer's code:** 06190776

**Position:** Peer Reviewer

**Academic degree:** MD, PhD

**Professional title:** Associate Professor, Chief Physician, Deputy Director, Doctor

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

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

**Manuscript submission date:** 2022-03-16

**Reviewer chosen by:** AI Technique

**Reviewer accepted review:** 2022-03-26 03:05

**Reviewer performed review:** 2022-04-05 13:27

**Review time:** 10 Days and 10 Hours

<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 type="checkbox"/> Accept (General priority) <input type="checkbox"/> Minor revision <input checked="" type="checkbox"/> Major revision <input type="checkbox"/> Rejection
<b>Re-review</b>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<b>Peer-reviewer</b>	Peer-Review: <input checked="" type="checkbox"/> Anonymous <input type="checkbox"/> Onymous

statements

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

## **SPECIFIC COMMENTS TO AUTHORS**

In this work, the authors described the plasma and urinary concentrations of iohexol systematically using rich kinetics of samples collected over 24 hours in cirrhotic patients with 3 different grades of ascites, then try to build a Bayesian estimator to simplify the estimation of mGFR. However, there are major specific points in this manuscript as shown in following comments: 1. Iohexol could damage renal tubulointerstitium and affect renal function, is it scientific and reasonable to use iohexol for research in this pilot study? Please explain it. 2. It is recommended that the research cases should be added for the study. 3. It is recommended that adding experiments of endogenous creatinine clearance rate for comparative study in this work.

## RE-REVIEW REPORT OF REVISED MANUSCRIPT

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**Reviewer's code:** 06151472

**Position:** Peer Reviewer

**Academic degree:** MD

**Professional title:** Doctor

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

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

**Manuscript submission date:** 2022-03-16

**Reviewer chosen by:** Ji-Hong Liu

**Reviewer accepted review:** 2022-06-01 09:44

**Reviewer performed review:** 2022-06-01 09:50

**Review time:** 1 Hour

<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 checked="" type="checkbox"/> Grade A: Priority publishing <input 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 statements</b>	Peer-Review: <input checked="" type="checkbox"/> Anonymous <input type="checkbox"/> Onymous Conflicts-of-Interest: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

#### **SPECIFIC COMMENTS TO AUTHORS**

The Authors answered my previous comments. Nevertheless, they did not add a control group as requested. Therefore, the manuscript does not have significant improvements after this round of revision. Results require further validation.   Regards