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OPEN PEER REVIEW

Arginine Levels in Neonatal Hydronephrosis

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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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Contents

1 **Original submission** Referee 1, Associate Editor 2
2 **Revision 1** Associate Editor, Editor-in-Chief 3
Authors' reply to reviewers 4
Reviewer and editor comments 6

1 Original submission

2 comments · 11 Aug 2024 – 12 Aug 2024

Referee 1 Reviewer

MAJOR REVISION 11 Aug 2024

1. There are several spelling and grammatical errors within the manuscript that need to be corrected in the right order. Please review the English quality of the manuscript again and revise it accordingly.
2. Please make the fonts and spacing between words consistent in some parts of the manuscript.
3. Please check your keywords against the Mesh database. It seems that the keywords need some revisions.
6. The "Introduction" is so weak. Please discuss the necessity of the study, previous studies, and so on in more detail.
7. The novelty of your work must be discussed; it seems it is so weak.
8. Please mention the weak and strong points of your study.
9. According to the inclusion and exclusion criteria (not included in the study), how many subjects were included, and how many were excluded? Please mention this in the main text.
10. What was your sample size formula? What is your expected power? Please mention this in the main text.
11. Which equipment did you use? Are these types of equipment calibrated? This is a critical point regarding bias due to instrumental error (write this in the method section).
12. Your sample size is so low. Why did you not use an exact method like the Bootstrap and Jackknifing methods for reporting the P-value and CI?
13. You could increase the number of more recent studies in the reference section. You should provide comprehensive and reliable comparisons between your findings and those of previous studies.
14. Additional citations are required to support some of the statements made. Please help improve this article by adding citations to reliable sources.
15. Please mention all limitations of the current study within the discussion section.
16. Please state your reasons for not checking for other additional metabolites, including acetate, ascorbate, betaine, creatine, dimethylglycine, trityl, glucuronate, alanine, lysine, threonine, N,N-dimethylaniline, ornithine, and ethylene trioxide.

Associate Editor

MAJOR REVISION 12 Aug 2024

Major Revision

2

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 authors would like to thank the reviewer for comments. We answered all of them and .highlighted them

Comment 1:English quality
.Reply: We improved the English Quality

Comment 2: *Please match the fonts and spaces between words in some parts of the manuscript*
Reply: Done as asked

Comment 3: *Please check your Keywords with the Mesh database. It seems that the keywords need some revisions*
Reply: Done as asked
,The "Introduction" is so weak. Please discuss more necessity, previous study .6
Reply: Done as asked
The novelty of your work must be discussed, it seems it is so weak *.7*
Reply: Done as asked
Please mention the weak and strong points of your study .8
Reply: study addresses a gap in the literature by focusing on the specific role of arginine in neonatal obstructive hydronephrosis. The prospective case-control design strengthens the causal inference between arginine levels and hydronephrosis. The use of LC-MS/MS for metabolite analysis is a gold standard method, enhancing the reliability of the results. We mentioned one of them in the introduction.The weakness is mentioned in the last part of discussion and limitations." The study found a significant difference in urine arginine levels between the HN and control groups, but the clinical implications of this finding are not fully explored. The study did not demonstrate a clear association between arginine levels and the need for surgery or other clinical outcomes, limiting its immediate clinical utility. While a power analysis was conducted, the sample size of 24 patients per group might still be considered relatively small for a study investigating a potential biomarker.
Comment 9: *According to inclusion and exclusion criteria (not included in the study), how many subjects were included, and how many were excluded? Please mention this in the main* text
.Reply: Done as asked

Comment 10: *What was your sample size formula? What is your expected power? Please .mention this in the main text*
Reply: Done as asked

Comment 11: *Which equipment did you use? Are these types of equipment calibrated? It is a critical point for bias due to instrumental error (write in the method section)*
Reply: Done as asked

Comment 12: *Your sample size is so low. Why did not you use an exact method like Bootstrap and Jackknifing method for reporting P-value and CI*

Reply: Dear reviewer our hospital is a referral hospital in our country so a great population are treated in our hospital that can approximately represent the whole sample. From the other hand the diagnostic kits are very expensive and we didn't receive any fund from the university. This was a residency thesis in a limited time and obstructive hydronephrosis that lead to surgery are rare. All the mentioned items show why the sample size is low but as you asked we performed a .Bootstrap and included in results

Comment 13: *You could increase the number of more recent studies in the reference section. You should have comprehensive and reliable comparisons between your findings with the other previous studies*
.Reply: Dear reviewer as this is a novel work there is no study to compare with it

Comment 14: *Additional citations are required to support some of the statements made. Please help improve this article by adding citations to reliable sources*
Reply: Done as asked

.Comment 15: *Please mention all limitations of the current study within the discussion section*
Reply: Done asked
Comment 16: *Please state your reasons for not checking for other additional metabolites, including acetate, ascorbate, betaine, creatine, dimethylglycine, trityl, glucuronate, alanine, lysine, threonine, N,N-dimethylaniline, ornithine, and ethylene trioxide*

Reply: Metabolites like dimethylglycine have not been extensively studied in relation to kidney function, while trityl and N,N-dimethylaniline are synthetic compounds not relevant to our study. Ethylene trioxide is a known toxin and was excluded due to its focus on industrial applications. We recognize that other metabolites, such as acetate, ascorbate, betaine, creatine, and ornithine, might also play a role in kidney function. In this particular study, we chose to focus on metabolites with a well-established role in kidney function, such as Arginine This was because .we were primarily interested in exploring the connection between Arginine and kidney health

2 Revision 1

2 comments · 5 Dec 2024 – 5 Dec 2024

Associate Editor

ACCEPT 5 Dec 2024

Accept

Editor-in-Chief

ACCEPT 5 Dec 2024

Accept