

*We thank Editor and Reviewers for spending their time in reviewing our manuscript and for giving us the possibility to resubmit it after minor revision. All changes are highlighted in yellow in the new version of the manuscript.*

*Editor in Chief*

I have reviewed the Peer-Review Report, the full text of the manuscript, and the relevant ethics documents, all of which have met the basic publishing requirements of the World Journal of Gastroenterology, 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. The author(s) must include the keyword "Non-Alcoholic Fatty Liver Disease" in the manuscript title.

*Answer:* Thank you for your comment. We added the keyword "Non-Alcoholic Fatty Liver Disease" in the title of the new version of the manuscript.

*Editorial Office Director*

I have checked the comments written by the science editor.

Scientific quality: The manuscript describes an observational study of the rs72613567:TA variant of the HSD17B13 gene in obese children. The topic is within the scope of the WJG. (1)

Classification: Grade A and Grade C;

(2) Summary of the Peer-Review Report: The author performed high quality work exploring the association between the rs72613567:TA variant of the HSD17B13 gene and estimated glomerular filtration rate in obese children. Multiple statistical analysis methods have been used. The overall quality of the manuscript is excellent. However, there are some issues should be addressed. The authors should explain the reason why to use the adjusted estimate of eGFR to BSA calculated from IBW and give explanation about physiological discussion a relationship between rs72613567 HSD17B13 polymorphism and high GFR (or obesity related glomerulopathy).

*Answer:* According to previous studies evaluating eGFR in the context of pediatric obesity (PMIDs 31923913; 31184438), we used the IBW-derived BSA-adjusted. This choice was made in order to avoid overcorrection occurring in obese children, as previously described (PMID 27008644). In fact, there is evidence that using the normalized GFR for IBW-derived BSA cancels the discrepancy commonly observed between absolute and BSA-indexed GFR in obese children.

Regarding a possible physiological explanation of the relationship between rs72613567 HSD17B13 polymorphism and high GFR, we provided it by highlighting the biological mechanism of this gene that modulates both inflammation and fibrogenesis. Please see the discussion section of the new version of the manuscript.

The questions raised by the reviewers should be answered and (3) Format: There are 3 tables and 2 figures. A total of 21 references are cited, including 12 references published in the last 3 years. There are 6 self-citations. 2 Language evaluation: Classification: Grade A and Grade A. The authors provided a personal language certificate. 3 Academic norms and rules: The authors provided the Biostatistics Review Certificate, the signed Conflict-of-Interest Disclosure Form and Copyright License Agreement, the Institutional Review Board Approval Form. The authors need to fill out the STROBE checklist with page numbers. Written informed consent was waived. No academic misconduct was found in the Bing search.

*Answer:* we filled out the STROBE checklist with page numbers.

The CrossCheck results showed the similarity to be high (total 41%). According to our policy, the overall similarity index should be less than 30%, and the single-source similarity should be less than 5%. Please rephrase these repeated sentences.

*Answer:* we edited the repeated sentences. Please see the new version of the manuscript.

4 Supplementary comments: This is an invited manuscript. The study is without financial support. The topic has not previously been published in the WJG. The corresponding author has published 1 article in the BPG. 5 Issues raised: (1) I found the title was more than 12 words. The title should be no more than 12 words

*Answer:* we modified the title accordingly.

(2) I found the authors did not provide the original figures. Please provide the original figure documents. Please prepare and arrange the figures using PowerPoint to ensure that all graphs or arrows or text portions can be reprocessed by the editor

*Answer:* we provided the original figures using PowerPoint.

(3) I found the authors did not write the “article highlight” section. Please write the “article highlights” section at the end of the main text.

*Answer:* we added the “article highlights” section at the end of the new version of the ms.

Rev 1 Congratulation ! The high quality work explored the association between the rs72613567:TA variant of the HSD17B13 gene and estimated glomerular filtration rate (eGFR) in obese children. Please revise all tables to the format of " three-line table".

*Answer:* Thank you for your comment. We revised the table format accordingly.

#### Specific Comments To Authors:

Review: The rs72613567:TA variant in the hydroxysteroid 17-beta dehydrogenase 13 gene improves renal function in children with obesity General comments: The authors concluded that the rs72613567 HSD17B13 polymorphism is associated with higher eGFR levels in obese children and effects for protective renal function. Furthermore, they also referred to a relationship between TM65SF2 E167K6 allele and high GFR by the same method (Pediatr Res. 2020). The meaning of the results is similar to the previous article except for different genotypes. The results concerning

glomerular filtration rate (eGFR) differences in obese and normal weight children are somehow contradictory; some studies reported higher eGFR in obese children reflecting a state of hyperfiltration, while others found either the opposite. The definition of eGFR is a key-point in those studies.

The authors should explain the reason why to use the adjusted estimate of eGFR to BSA calculated from IBW. It may be useful that the other eGFR estimations show to compare eGFRs.

Answer: According to previous studies evaluating eGFR in the context of pediatric obesity (PMIDs 31923913; 31184438), we used the IBW-derived BSA-adjusted. This choice was made in order to avoid overcorrection occurring in obese children, as previously described (PMID 27008644). In fact, there is evidence that using the normalized GFR for IBW-derived BSA cancels the discrepancy commonly observed between absolute and BSA-indexed GFR in obese children.

However, we also performed the analysis by using the “absolute” eGFR both in patients with and without NAFLD. We provided the results in this table:

Patients with NAFLD:

	<i>HSD17B13 TT</i>	<i>HSD17B13 TA/AA</i>	<i>p-value</i>
	(n= 218)	(n=100)	
eGFR, mL/min/1.73m <sup>2</sup>	135.31±23.90	151.18±29.75	<b>&lt;0.0001</b>

Patients without NAFLD:

	<i>HSD17B13 TT</i>	<i>HSD17B13 TA/AA</i>	<i>p-value</i>
	(n= 218)	(n=100)	
eGFR, mL/min/1.73m <sup>2</sup>	133.86±28.31	149.09±30.66	<b>&lt;0.0001</b>

Minor comments: The eGFR data of the study are cross-sectional. If the decline of the high GFR by aging means “improve”, longitudinal study data according to age are more useful for the study.

Answer: thank you for your suggestion. We edited it. Please see the new title of the revised version of the manuscript.

It is better to change eGFR to eGFR adjusted to BSA-IBW in figure 1 and 2.

Answer: we modified it accordingly. Please see the new version of the figures 1 and 2.

The authors explain that TM6SF2 E167K polymorphism independently affects high eGFR with no relationship of rs72613567:TA variant in the discussion. However, TM6SF2 E167K polymorphism relates to high GFR in your previous article (Pediatr Res. 2020). Could it be a confounder factor for the outcome?

Answer: we performed a GLM analysis for eGFR variance including gender, duration of obesity, *HSD17B13*, *PNPLA3*, and *TM6SF2* genotypes, BMI-SDS, HOMA, ALT and triglycerides confirmed a direct and significant association of eGFR values with *HSD17B13* genotype both in patients with and without NAFLD. So that, we are able to affirm that this polymorphism does not represent a confounder factor for the outcome. Please see Table 3.

It needs an explanation about physiological discussion a relationship between rs72613567 *HSD17B13* polymorphism and high GFR (or obesity related glomerulopathy).

Answer: we provided a possible physiological explanation of the relationship between rs72613567 *HSD17B13* polymorphism and high GFR by highlighting the biological mechanism of this gene that modulates both inflammation and fibrogenesis. Please see the discussion section of the new version of the manuscript.

The authors presented as eGFR mL/min/1.73m<sup>3</sup> (log) in Figure 1. and 2. but had presented as eGFR mL/min/1.73m<sup>3</sup> in your previous article (Pediatr Res. 2020). It is better without a logarithmic presentation.

Answer: Following your suggestion, we removed the logarithmic presentation of eGFR data both in Figure 1 and 2. Please see the new version of the figures 1 and 2.