

We sincerely thank the reviewers for taking their time to review our manuscript. We have made the revisions to the manuscript (highlighted in yellow) based on their suggestions and provided a point-by-point response regarding the same as below. Thank you once again.

Reviewer 1

1.The title and content of this manuscript are very similar to the articles as follows, especially the first one. To some extent, this review is just a repetition of other's work.This manuscript lacks originality. a)“Chakera J A, Jones O, Edensor S. Diagnosis and Management of Monogenic Diabetes in Pregnancy[J]. Current Diabetes Reviews,2023,19(2).” b)“Majewska A, Stanirowski P, Wielgoś M, Bomba-Opoń D. Maturity-onset Diabetes of the Young(MODY) in Pregnancy: A Review. Curr Diabetes Rev. 2023;19(1):e280122200657. doi: 10.2174/1573399818666220128124043. PMID: 35088675.”

Thank you to the reviewer for raising this important question. We began writing this article earlier this year and were unaware of similar work until it was published. Monogenic diabetes in pregnancy is a crucial topic, and there are no publications on it in the World Journal of Diabetes. Our article would benefit the readers of this journal, and more publications in this area would help reach a wider audience in this important area.

2.The abstract and introduction of the manuscript isn't concise and direct enough. There are too many unnecessary words. The abstract and introduction need to be further condensed. c)In Abstract:“The glycemic targets in GCK-MODY pregnancies are not exclusively dictated by the maternal/paternal MODY genotype but are also influenced by the genotype of the developing fetus. Accurately determining the fetal genotype poses challenges, prompting the use of fetal growth patterns as a surrogate marker. ” “Treatment options for HNF1A-MODY and HNF4A-MODY in pregnancy include either sulfonylurea or insulin, and transplacental transfer of sulfonylurea can lead to fetal macrosomia.” I think it's inappropriate to use a lot of space to describe the specific treatments of four subtypes of MODY in the paragraph of Abstract, as the abstract is supposed to be concise and comprehensive. It could be better if you summarize the imperfection and the prospect of diagnosis and treatment measures, so that readers can have a preliminary outline of the issues to be narrated.

Many thanks for the reviewer's comment. It has been now condensed as per the reviewer's suggestion.

d)In Introduction: “Other specific gene abnormalities can give rise to neonatal diabetes, which as its name suggests causes diabetes in early life.”“The distinguishing features between MODY and type 1 or type 2 diabetes are early onset fasting hyperglycemia (<35 years of age), lean body habitus, absence of pancreatic islet autoantibodies (a characteristic feature of type 1 diabetes), reduced or no

clinical features of insulin resistance, and a family history of diabetes with autosomal dominant inheritance." These words appear too specific as the Introduction should see things from a broader perspective.

Many thanks for the reviewer for this comment, we have now modified to keep it a broader perspective.

3.The main content of the manuscript is inconsistent with the abstract. The authors wrote in the abstract "Each subtype of MODY requires a distinct approach tailored to the pregnancy, diverging from management strategies in non-pregnant individuals." In the manuscript, the treatment for each subtype of MODY only stated that it was insulin therapy, which was not specific and systematic enough. The HNF1A MODY and HNF4A MODY sections lack relevant discussion on complications.

Many thanks for the reviewer's comment. We have further elaborated on this highlighted line. Although the options are insulin and sulfonylurea now, even among these two, each MODY needs to be tailored, as we had in multiple areas throughout the article highlighted this difference. Complications of HNF1A MODY and HNF4A MODY has been now to the corresponding sections.

4.The main points of this review are not clear enough. e)Page 2, line 5, you say "This review will focus on the implications of pregnancy in the most common forms of MODY". This sentence apparently deviates from the theme of treatment. It's essential to ensure that the argument is directly related to the topic.

Many thanks for the reviewer for this comment. It was error during the edit and it should read as -This review will focus on the management of the most common MODY in pregnancy, and this has been now corrected

5.The theoretical basis of the article is not sufficient. And the data sources are unclear. Ex. f)In the Section "Management of GCK-MODY during pregnancy" ,the 3rd paragraph, you mention"Most women with GCK-MODY do not require anti-diabetic therapy out with pregnancy. It is generally recommended that anti-diabetic therapy should not be commenced as a matter of routine during the first and second trimesters of pregnancy, even though maternal blood glucose levels are likely to be above typical pregnancy targets." But you has not provided a theoretical basis for these treatment principles, which makes me a little confused. As a review, readers could have a good understanding of the topic if you give data or theory details rather than the statement of other reviews, especially when the treatment is the central element in this article.

Many thanks for the review's comments. Since we want to keep the review tailored to the management and keep it practical and hence the theoretical pathophysiology is beyond the scope of this review

g)Page 9, line14:"These data suggest a shift towards insulin therapy as opposed to sulphonylurea therapy during pregnancy." The data source here is unknown.

Many thanks to the reviewer's comments. The data source has now been added.

Minor concern :

1.For a systematic review, 36 references are limited, and only one-third of references are from the last five years. ?

Thank you for the reviewer's comment. We appreciate your feedback. In constructing this systematic review, we have taken into consideration that we are limited to 36 references, and it's worth noting that only one-third of these references are from the last five years. Our primary objective is to ensure the inclusion of robust evidence while avoiding studies with methodological flaws. We are also striving to make this review as practical as possible. It's important to acknowledge that there are valuable studies that extend beyond the last five years, and as such, we have included important studies relevant to MODY pregnancies rather than exclusively concentrating on the most recent five years of research.

2.Section of "key words" needs revision. For instance, you should add "pregnancy". Many thanks for these additional suggestions. Now Pregnancy is added to the key words.

3.Figure 2 appears before the text mentions it.
The position of figure 2 is now moved after the text it appears.

4.The conclusions don't accurately summarize the information above.
Many thanks for the reviewers' comment, we had added information on the conclusion to emphasise this fact.

Reviewer 2:

1. Can you provide more information on the specific genetic tests used to diagnose MODY during pregnancy? Are there any emerging non-invasive genetic testing methods for MODY that could be applied during pregnancy?

Many thanks for the reviewer's comment, we have now included an additional paragraph under testing for MODY in pregnancy to address the reviewer's comments.

2. How do the management strategies for different subtypes of MODY during pregnancy differ? Are there any commonalities in the approach to managing MODY in pregnant women?

Many thanks for the reviewer's comments. We have already addressed this concept through the management section for each MODY genotype.

3. You mentioned that maternal hyperglycemia in GCK-MODY pregnancies can lead to fetal growth acceleration. Could you elaborate on the mechanisms behind this and the potential consequences for both the mother and the fetus?

Many thanks for the reviewer's comments. We have already addressed this in the section -Complications associated with GCK-MODY pregnancy. We also added some more pointers to make this concept clearer.

4. In the case of HNF1B-MODY, which is associated with a wide range of clinical phenotypes, are there specific considerations for managing pregnant women with this subtype, especially if they have other associated conditions like renal abnormalities?

Many thanks for the reviewers' comments. Unfortunately, there are no large-scale studies in this area to suggest one approach better for one phenotype over other. Hence insulin is safest treatment available dose adjusted based on the maternal blood glucose levels.

5. What are the potential risks and benefits of using sulfonylureas vs. insulin in the management of MODY during pregnancy, particularly in the context of GCK-MODY and HNF1A-MODY?

Many thanks for the reviewer's comments. We have already addressed this in the management section of those MODY sub-types.

6. Are there any ongoing clinical trials or research efforts aimed at improving the management of MODY during pregnancy, or at developing novel treatment approaches for this specific population?

Many thanks for the reviewer's comments. Unfortunately, the trials are limiting in the pregnant women with MODY and moreover, we have not included those studies as we want to keep this review more practical and tailor to the management of most common form of MODY

7. Could you explain the rationale behind monitoring fetal growth in MODY pregnancies and how it informs the management decisions during pregnancy? Are there specific growth patterns that healthcare providers look for?

Many thanks for this question. This has been dealt in the paragraph of Management of GCK-MODY during pregnancy and also in the figure 2.

8. Given the rarity of MODY, what challenges exist in terms of raising awareness among healthcare providers and the general public about the condition, especially in the context of pregnancy?

Many thanks for the reviewer's comments. We have addressed this in the conclusion section of our article. Improving the early detection of MODY during the initial stages of pregnancy requires several key changes: better implementation of MODY protocol in general diabetes clinics for pre-pregnancy diagnosis, raising awareness among the treating medical team, ensuring accessibility to genetic testing facilities, and fostering familiarity with appropriate treatment strategies.

9. Can you provide insights into the long-term health outcomes for children born to mothers with MODY during pregnancy? Are there any specific health risks or considerations for these children as they grow older?

Many thanks for the reviewer's comments. The data are limited and are available for GCK-MODY and we have already discussed in the section on Complications associated with GCK-MODY pregnancy.

10. In your conclusion, you mentioned the need for better implementation of MODY guidelines in general diabetes clinics. Could you elaborate on these guidelines and their importance in the context of managing MODY during pregnancy?

Many thanks for the reviewer's suggestion. Since the guidelines differ from hospital to hospital and also various between countries, we had had picked the best available evidence for this review relevant to the management and rather concentrate for the guidelines.

Editor- in- chief comments:

Many thanks for the suggestions and we have now provided the image as power point and tables as separate word document file. All the reviewers comments have been addressed. Since our co-authors are native English speakers, English language editing certificate is not required.