

Review Form 3

Journal Name:	Asian Journal of Immunology
Manuscript Number:	Ms_AJI_126317
Title of the Manuscript:	The Gravity of Vitamin D Deficiency and Miscarriage in Women.
Type of the Article	

General guidelines for the Peer Review process:

This journal’s peer review policy states that **NO** manuscript should be rejected only on the basis of ‘**l a c k o f N o v e l t y**’, provided the manuscript is scientifically robust and technically sound. To know the complete guidelines for the Peer Review process, reviewers are requested to visit this link:

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PART 1: Review Comments

<u>Compulsory</u> REVISION comments	Reviewer's comment	Author's Feedback <i>(Please correct the manuscript and highlight that part)</i>
Please write a few sentences regarding the importance of this manuscript for the scientific community. Why do you like (or dislike) this manuscript? A minimum of 3-4 sentences may be required for this part.	This manuscript underscores the critical link between vitamin D deficiency and the incidence of idiopathic miscarriage in women, a topic of significant relevance in reproductive medicine. By focusing on a well-defined cohort and implementing rigorous exclusion criteria for potential confounding factors, the study contributes valuable insight into a modifiable risk factor that could enhance maternal reproductive health. I appreciate the thoroughness of the methodology and the comprehensive discussion surrounding the potential mechanisms through which vitamin D influences reproductive outcomes. Furthermore, the discussion on the biochemical mechanisms behind Vitamin D's influence on pregnancy will likely inform future studies and therapeutic approaches in obstetric and gynaecological care. However, I would have liked to see a more robust exploration of the limitations of the study and suggestions for future research directions to strengthen the overall impact of the findings.	
Is the title of the article suitable? (If not please suggest an alternative title)	The title "The Gravity of Vitamin D Deficiency and Miscarriage in Women" is somewhat suitable, as it highlights the focus on Vitamin D deficiency and its potential impact on miscarriage. However, it could be made more specific and informative: Investigating the Impact of Vitamin D Deficiency on Idiopathic Miscarriage in Women; The Role of Vitamin D Deficiency in Women Experiencing Idiopathic Miscarriage; Assessing the Link Between Vitamin D Levels and Miscarriage Risk in Women. These alternatives provide a clearer indication of the study's focus and objectives.	
Is the abstract of the article comprehensive? Do you suggest the addition (or deletion) of some points in this section? Please write your suggestions here.	The abstract of the article titled "The Gravity of Vitamin D Deficiency and Miscarriage in Women" provides a good overview of the study's background, aim, methods, results, and conclusion. The abstract is somewhat lengthy and could benefit from being more concise. Consider summarizing some of the details, especially in the methods section, to focus on the key points. The aim of the study could be stated more clearly. Instead of "is to correlate the role of Vitamin D deficiency with the idiopathic miscarriage in women," consider rephrasing it to "This study aims to investigate the correlation between Vitamin D deficiency and idiopathic miscarriage in women." When mentioning results, it would be beneficial to include specific statistical values (e.g., p-values) in the abstract to emphasize the significance of the findings. The conclusion could be more impactful. Instead of simply stating that Vitamin D deficiency significantly affects pregnancy loss, consider adding a statement about the implications of these findings for clinical practice or future research. Ensure that the keywords are relevant and comprehensive. You might consider adding "idiopathic miscarriage" and "Vitamin D levels" to capture the essence of the study better.	
Are subsections and structure of the manuscript appropriate?	The manuscript "The Gravity of Vitamin D Deficiency and Miscarriage in Women" presents an in-depth investigation into the correlation between vitamin D deficiency and idiopathic miscarriage in women. Reviewing its structure and subsections, the manuscript seems largely well-organized but could benefit from a few adjustments to enhance clarity and improve the logical flow. Introduction is informative, detailing the prevalence and impact of miscarriage, potential causes, and the role of vitamin D in reproductive health. The linkage between vitamin D and miscarriage, along with the rationale for studying idiopathic cases, is well-articulated. The introduction could be more succinct by reducing some background information on the biological functions of vitamin D, as these are restated in the discussion. The methodology is presented in detail, including participant selection, exclusion criteria, sample collection, and ethical approval, which adds credibility and transparency. Some clarification on sample size reduction (from 180 to 43) could help readers understand how exclusions were made. Adding a brief description of how vitamin D levels were measured, including assay specifics, would be beneficial. The results section is comprehensive, using tables to illustrate correlations between miscarriage and various parameters (e.g., age, BMI, trimester, TORCH screening). The tables add clarity to the findings, making it easier for readers to interpret key points. Organizing the text to follow the sequence of tables (from Table 1 through to the final table) would make it more reader-friendly. Additionally, detailing the vitamin D deficiency cut-off values for "significant" would enhance understanding. The discussion provides an adequate summary of findings and aligns them with previous research, exploring potential mechanisms by which vitamin D may influence miscarriage rates. References to immune modulation and VDR expression underscore the importance of vitamin D in early pregnancy. Reducing some repetitive content from the introduction on vitamin D functions would improve conciseness. A clearer interpretation of the clinical implications and recommendations for future research (e.g., possible intervention strategies) would also strengthen the discussion. The conclusion effectively summarizes the study's findings and implications, calling for consistent, international criteria in miscarriage prevention. Although, reiterating a clear, specific recommendation based on the findings	

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	would enhance the manuscript's clinical applicability. The references are relevant and provide a comprehensive backdrop to the study, covering a range of sources on miscarriage and vitamin D deficiency. Checking for any recent studies post-2022, especially systematic reviews or meta-analyses on vitamin D and miscarriage, would ensure the reference list is up-to-date. Minor adjustments to streamline some sections and ensure methodological clarity would make the study's	
Please write a few sentences regarding the scientific correctness of this manuscript. Why do you think that this manuscript is scientifically robust and technically sound? A minimum of 3-4 sentences may be required for this part.	This manuscript demonstrates scientific robustness and technical soundness through its rigorous approach to studying the correlation between vitamin D deficiency and idiopathic miscarriage. The study uses a comprehensive exclusion process to rule out other causes of miscarriage, such as infections, autoimmune disorders, and physical abnormalities, ensuring that the sample of 43 women represents cases of idiopathic miscarriage. Additionally, the data analysis incorporates key demographic and physical factors, like age and BMI, while controlling for other potential confounders, which strengthens the reliability of the findings. The use of established diagnostic criteria, ethical considerations, and standardized laboratory methods further supports the credibility of the study's conclusions on the significant role of vitamin D in pregnancy outcomes. I appreciate the manuscript's potential to stimulate further research on vitamin D supplementation as a preventative measure against miscarriage, though it would benefit from a more in-depth discussion on the implications of these findings for clinical practice.	
Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form. -	The references in this manuscript are generally sufficient, covering key studies on vitamin D deficiency, reproductive health, and miscarriage, with citations spanning foundational findings and recent research up to 2023. However, a few additional recent studies could further strengthen the manuscript's foundation. For instance: Current meta-analyses on vitamin D's role in reproductive health, such as Tamblyn et al. (2022), which examines vitamin D's association with miscarriage risk, could provide a broader perspective on the topic. Population-specific studies on vitamin D deficiency in reproductive health, particularly studies in regions with similar socioeconomic or geographical profiles, would add contextual relevance. Recent insights into vitamin D's immune-modulatory effects during early pregnancy, as seen in studies from 2023 or later, may help reinforce the discussion on maternal-fetal immune tolerance and pregnancy outcomes. Incorporating these references could offer a more comprehensive literature base, especially in light of recent advances in vitamin D research in reproductive medicine.	
Minor REVISION comments Is the language/English quality of the article suitable for scholarly communications?	The language quality of the article is generally acceptable for scholarly communication, but there are areas where clarity, grammar, and phrasing could be improved to enhance readability and precision. Issues such as sentence structure, occasional repetition, and minor grammatical errors need refinement to ensure that the findings and arguments are clearly communicated. Additionally, improving the consistency of technical terminology would contribute to a more professional and polished presentation. Overall, with minor language revisions, the article would meet the standards for scholarly communication effectively.	
Optional/General comments	The manuscript addresses a relevant topic in reproductive health by examining the link between vitamin D deficiency and idiopathic miscarriage, providing valuable insights for clinical practice and future research. The study design is straightforward, with a focus on idiopathic cases, and the methodology is generally well-detailed, ensuring replicability. However, the manuscript would benefit from additional clarity in its statistical analysis approach, especially in specifying how variables were controlled and analysed. Minor language edits for grammar and flow would further enhance readability. Overall, the study makes a useful contribution, with some improvements that could strengthen the presentation of findings.	

PART 2:

	Reviewer's comment	Author's comment (if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)
Are there ethical issues in this manuscript?	(If yes, Kindly please write down the ethical issues here in details)	

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