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| Journal Name: | **[Archives of Current Research International](https://journalacri.com/index.php/ACRI)** |
| Manuscript Number: | **Ms\_ACRI\_133181** |
| Title of the Manuscript: | **The influence of periodontitis and dexamethasone on the development and morphology of mouse ovarian follicles** |
| Type of the Article |  |

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| PART 1: Comments | | |
|  | Reviewer’s comment **Artificial Intelligence (AI) generated or assisted review comments are strictly prohibited during peer review.** | Author’s Feedback *(Please correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)* The Authors hereby declare that NO generative AI technologies such as Large Language Models (ChatGPT, COPILOT, etc.) and text-to-image generators have been used during the writing or editing of this manuscript. |
| **Please write a few sentences regarding the importance of this manuscript for the scientific community. A minimum of 3-4 sentences may be required for this part.** | **The influence of periodontitis and dexamethasone on the development and morphology of mouse ovarian follicles is important because it shows that periodontitis is not only an oral cavity problem, but is also associated with infertility. This study has significant clinical and biological importance, especially in relation to the relationship between chronic inflammation, glucocorticoid therapy, and women's reproductive health.** | This study shows that periodontitis increases the degeneration rates of secondary and tertiary follicles, while dexamethasone does not influence periodontal disease or the follicular morphology, but it deregulates the mice's cyclicity. |
| **Is the title of the article suitable?**  **(If not please suggest an alternative title)** | The title of the article is suitable | Thank you for the comments. |
| 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 provides a good overview of the study, but there are some areas where it could be improved for **clarity, completeness, and impact**. Below are my suggestions:   The aim should clearly state that the study investigates both morphological and functional changes in ovarian follicles due to periodontitis and dexamethasone.  Suggested revision: *"This study investigates the effects of periodontitis, alone or in combination with dexamethasone treatment, on the growth, viability, and cyclicity of ovarian follicles in mice."*  The conclusion should clearly state that **periodontitis, rather than dexamethasone, is the primary factor affecting follicular morphology**, while dexamethasone affects reproductive cyclicity.  Suggested revision: *"Periodontitis significantly increases the degeneration of secondary and tertiary ovarian follicles, while dexamethasone does not influence follicular morphology but contributes to estrous cycle dysregulation."* | 1. We have changed the aim of this study following your suggested revision: *”This study investigates the effects of periodontitis, alone or in combination with dexamethasone treatment, on the growth, viability, and cyclicity of ovarian follicles in mice."*2. We also have changed the conclusion of this study following your suggestion: *"Periodontitis significantly increases the degeneration of secondary and tertiary ovarian follicles, while dexamethasone does not influence follicular morphology but contributes to estrous cycle dysregulation."* |
| Is the manuscript scientifically, correct? Please write here. | I think the manuscript is scientifically | Thank you for the comments. |
| **Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form.** | the reference proportion would be better if it was at least 50% in the last 5-10 years | We have added new references from the years 2020-2024. Follow the references list at the end of the manuscript.   - Wang RPH, Huang J, Chan KWY, Leung WK, Goto T, Ho YS, Chang RCC. IL-1β and TNF-α play an important role in modulating the risk of periodontitis and Alzheimer’s disease. J Neuroinflammation, 2023;20(1): 71. <https://doi.org/10.1186/s12974-023-02747-4>.  - Silva, J. R., Lima, F. E., Souza, A. L., & Silva, A. W. Interleukin-1β and TNF-α systems in ovarian follicles and their roles during follicular development, oocyte maturation and ovulation. Zygote. 2020; 28(4): 270–277. <https://doi.org/10.1017/s0967199420000222>.  - World Health Organization. (2024, November 6). Oral health. World Health Organization. <https://www.who.int/news-room/fact-sheets/detail/oral-health>. Accessed: March 24, 2025.  - Márquez-Arrico CF, Silvestre FJ, Fernández-Reyes M, Silvestre-Rangil J, Rocha M. Is there an association between periodontal disease and infertility? A systematic review. Med Oral Patol Oral Cir Bucal. 2024;29(6):e866-e875. doi: 10.4317/medoral.26831.  - Márquez-Arrico CF, Silvestre-Rangil J, Gutiérrez-Castillo L, Martinez-Herrera M, Silvestre FJ, Rocha M. Association between Periodontal Diseases and Polycystic Ovary Syndrome: A Systematic Review. J Clin Med. 2020;9(5):1586. doi: 10.3390/jcm9051586.  - Higashi Y. (2022). Roles of Oxidative Stress and Inflammation in Vascular Endothelial Dysfunction-Related Disease. Antioxidants (Basel). 2022;11(10):1958. doi: 10.3390/antiox11101958.  - Machado V, Escalda C, Proença L, Mendes JJ, Botelho J. Is There a Bidirectional Association between Polycystic Ovarian Syndrome and Periodontitis? A Systematic Review and Meta-analysis. J Clin Med. 2020;9(6):1961. doi: 10.3390/jcm9061961. |
| Is the language/English quality of the article suitable for scholarly communications? | language/English quality of the article suitable for scholarly communications | Thank you for the comments. |
| Optional/General comments | Basically the manuscript is good, it only needs to be revised slightly in the abstract and the addition of the latest references. | We have made the changes suggested by reviwers in the abstract as it shows:  AIM –*“This study investigates the effects of periodontitis, alone or in combination with dexamethasone treatment, on the growth, viability, and cyclicity of ovarian follicles in mice."* CONCLUSION - *"Periodontitis significantly increases the degeneration of secondary and tertiary ovarian follicles, while dexamethasone does not influence follicular morphology but contributes to estrous cycle dysregulation."* 2. About the references, we have included latest 5 years references about the main topic, as it shows in the references list (years 2020-2025). |

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| **PART 2:** | | |
|  | Reviewer’s comment | Author’s comment *(if agreed with the 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 detail)* | No ethical issues were identified. |