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| Journal Name: | [Journal of Advances in Medicine and Medical Research](https://journaljammr.com/index.php/JAMMR) |
| Manuscript Number: | **Ms\_JAMMR\_132400** |
| Title of the Manuscript: | **Histological response and bone neoformation of bioceramic cements in rat calvaria** |
| Type of the Article | **Original Research 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)* |
| **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.** | This manuscript is focus on the influence of two biomaterials on bone healing by using calvarial defect model in rats. Histological analysis and different scoring systems were used to study their regenerative potential. Promising results were obtained. |  |
| **Is the title of the article suitable?**  **(If not please suggest an alternative title)** | Yes. |  |
| 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. | There are some discrepancies between the абстарцт and the main text - size of defects. | The size of the bone defect was standardized in the abstract and the main text of the article. |
| Is the manuscript scientifically, correct? Please write here. | Yes. |  |
| **Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form.** | Yes. |  |
| Is the language/English quality of the article suitable for scholarly communications? | Yes. |  |
| Optional/General comments | My main concern is about the size of the calvarial defects. In abstract is written 2 mm, which is not critical defect in rats at this age. Afterwards in Material & Method section has been mentioned 5 mm. According to my expertise, I strongly doubt if three 5 mm defect could fit in rat calvaria. Please, explain this.  Authors chose to have 5 animals per groups. Why did they not have 6, which is actually better minimum for statistical analysis?  The sex of the rats has not been written-male/female or mixed. Female hormones play important role in bone metabolism.  The dose of a medication is usually expressed in mg/kg.  Histological figures should be more detailed. Please, add magnification and arrows showing different cells, tissue, etc.  Masson’s trichrome staining has been mentioned in the abstract, but missing as results. | Two bone defects were created. Three defects were used only in the pilot study. The information has been adjusted in the study.  The sample size of 5 animals per subgroup in the tested materials was determined based on previous studies with similar experimental models. Although a sample size of 6 is suggested to increase statistical power, we followed the principles of reduction, refinement, and replacement (3Rs) to minimize the number of animals used while ensuring statistically robust and reproducible results.  Male. Adjusted.  "The dosage of a medication is usually expressed in mg/kg.” Adjusted.  Adjusted. Hematoxylin and eosin staining was used. |

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| **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)* |  |