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| Journal Name: | [**Journal of Cancer and Tumor International**](https://journaljcti.com/index.php/JCTI) |
| Manuscript Number: | **Ms\_JCTI\_138293** |
| Title of the Manuscript: | **Binucleated Cells: A Comprehensive Review of Locations, Mechanisms, Clinical Significance, and Diagnostic Applications** |
| Type of the Article | **Review Article** |

PART 1: Comments

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|  | **Reviewer’s comment**  **Artificial Intelligence (AI) generated or assisted review comments are strictly prohibited during peer review.** | **Author’s Feedback** (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.** | The topic of binucleated cells is interesting because it relates to the development of genetic markers for cancer and other diseases. This systematic review can provide insight into the role of binucleated or multinucleated cells as genetic markers for cancer, autoimmune and inflammatory diseases, enabling clinicians to quickly detect the diagnosis and stage of cancer or other disease progression.  A comprehensive review has shown the importance of a review theme, but it would be better if the author could make it a systematic review. |  |
| **Is the title of the article suitable?**  **(If not please suggest an alternative title)** | **Addition of molecular mechanism**  **binucleated Cells: A Comprehensive Review of Locations, molecular Mechanisms, Clinical Significance, and Diagnostic applications**  **r**  **binucleated cells: A comprehensive review of biological and pathological significance** |  |

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| **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 should explain the detailed results and conclusion**  **Addition:** In the results section:  It is recommended to mention the types of diseases most commonly found in the literature that contain binucleated cells.  It is better to mention the assays that use binucleated cells as disease markers or diagnostic tools or disease progression |  |
| **Is the manuscript scientifically, correct? Please write here.** | **There are a few correction in this section.** Some suggestions have been incorporated into the manuscript  **Avoid using the word “I” in scientific writing.**   * 1. Binucleated cells in normal tissues**: The author should expand this section. The descriptive view about the location of binucleated in normal tissue**      1. **Bone marrow. Not “In bone marrow”**   The review aimed to answer the following questions: What are binucleated cells, and how are they formed? What is the role and reasons for binucleated cells in tissue and cytological smears? How are they associated with infections and cancers? And how can binucleated cells be used as diagnostic markers in modern medicine? **The author should stick to the research title.**  Figure 3 is too expanded towards the left and right sides. The author should fix in the actual figure to make it proportional figure.  Guild et al **[35] The full stop after et al is mandatory**  **The subsection in the Manuscript:**   * 1. Location of the binucleated cells   2. Molecular mechanism of the binucleated cells in biological and pathological state   3. Clinical Significance in diseases   4. The role of Binucleated Cells as Diagnostic Application   **Discussion include:**  The most common locations where binucleated cells are found in normal and pathological conditions.  The main molecular mechanisms that cause diseases such as viral infections, bacterial infections, or cancer.  The role of binucleated cells as a tool for detecting cancer or disease, including the tests used to confirm the presence of binucleated cells as a marker of disease.  The main role of binucleated cells in the development of disease. |  |

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| **Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form.** | Most of the references are from more than 10 years ago, some even date back to 1980 and 1996, which means the sources are from 45 and 29 years ago. Please replace the references, especially ref. nos. 11, 13, 20, 35, and several others.  Replace with the latest reff |  |
| **Is the language/English quality of the article suitable for scholarly communications?** | Yes |  |
| **Optional/General** comments |  |  |

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| **PART 2:** | | |
|  | **Reviewer’s comment** | **Author’s Feedback** (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)* |  |

**Reviewer details:**

**Liza Meutia Sari, Indonesia**