JBAS-D-24-00667

Liposome drug delivery in combating the widespread topical antibiotic resistance : a comprehensive review

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Beni-Suef University Journal of Basic and Applied Sciences

Dear Ms Dwi Rizkita,

Your manuscript 'Liposome drug delivery in combating the widespread topical antibiotic resistance: a comprehensive review' (JBAS-D-24-00667) has been assessed by our reviewers. Although it is of interest, we are unable to consider it for publication in its current form. The reviewers have raised a number of points which we believe would improve the manuscript and may allow a revised version to be published in Beni-Suef University Journal of Basic and Applied Sciences.

Their reports, together with any other comments, are below. Please also take a moment to check our website at https://www.editorialmanager.com/jbas/ for any additional comments that were saved as attachments.

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We look forward to receiving your revised manuscript soon.

Best wishes,

Osama M. Ahmed, Professor Beni-Suef University Journal of Basic and Applied Sciences bjbas.springeropen.com

Reviewer #1:

- 1. Abstract: The manuscript requires a thorough revision before it is accepted for publication. The abstract of the manuscript should be rewritten to capture the essence of the review. Mainly the antibacterial resistance to current treatment options and how liposomes can be used to overcome should be included in the abstract.
- 2. Body:
 - o The title of section 2.1.1., should be "anatomy and physiology of skin".
 - o The title of section 2.1.2., should be "Permeability of the skin".
 - Section 2.1.3 only talks about barrier properties of the skin and not about
 "Pharmacokinetics of topical drugs to cross the skin barrier" as mentioned in the title. The authors can talk about Dermatokinetics in this section.
 - o In section 2.1.4.2., the authors included delivery of drugs to the ear and eye, which does not align with the theme of the manuscript. This can be removed and sections pertaining to drug delivery across the skin should remain.
 - There are a lot of spelling mistakes in the manuscript such as nano couriers, nanovesicel etc.
 - o In section 2.1.6, a table summarizing the studies involving the use of liposomes for delivering antibiotics topically should be provided. Especially preclinical and clinical studies should be provided in the table. The figures provided in the manuscript do not add much value. Figures in support of the data provided in the manuscript could be added.
- 3. The manuscript should be revised thoroughly to minimize the grammatical and spelling errors.
- 4. The advantages of liposomes over nanocarriers should be included.

Reviewer #2:

- 1. The manuscript must be checked thoroughly before submission and by an English linguist expert. It is clearly visible that the manuscript was written by several people, and there is a HUGE GAP in writing style and grammatical errors. Some abbreviations are different from one section to another, missing punctuations, and incomplete sentences' structure.
- 2. Title

According to the title, the authors offer a comprehensive review of liposome drug delivery. However, the manuscript is more descriptive and subtly bias. It would rather more fit into a narrative review.

3. Background section

I suggest the authors to remove the paragraph mentioning fusidic acid in the background section (page 4, line 4-34). As the authors are covering other types of antibiotics, it is not in accordance with the rest of this manuscript.

4. Aim of the manuscript section

In page 5, line 16. What do the authors mean with "unloaded one". Please explain your point of view and rephrase.

5. Methodology section

Please specifically mention the range of year selected for this manuscript.

6. Main text; section 2.1.3; page 8-9.

It is a repetition from the section 2.1.1. Please rewrite focusing only pharmacokinetics of the skin barrier (as the title from the subsection).

Page 9, line 43 and 55. Suddenly there is SC as abbreviation, and not written/explain previously.

7. Main text; section 2.1.4; page 11-17

Enormous language error in this section. Please rewrite and reread.

A table (or two tables) will be easier to present the information that authors would like to cover. Table consisting following information can definitely help readers to find out their desired systems to explore: System | Main components | Characteristics | Results and applications | Reference.

8. Main text; section 2.1.4; page 15

It is understandable that the authors would like to cover every single type of topical antibiotics. However, since the previous sections are focusing on skin for topical application (even not mentioned in Table 1), it is suggested to remove the subsection of "infection of the respiratory tract".

9. Main text; section 2.1.6; page 25-29.

Another section with different writing style compared to the rest of this manuscript. It is wise to reread whole manuscript before submission.

10. Conclusion; page 29 line 57 - page 30 line 4.

The statement "To ensure full eradication of bacteria colonies that resides in human body, many parameters are needed to achieve." should be re-written. As we know, it is normal and healthy to have skin or gut microbiome. It should direct to pathogenic bacteria instead. Also add perspectives for guiding further investigations on the liposome technology for topical antibiotic.

11. List of abbreviations is incomplete!

If improvements to the English language within your manuscript have been requested, you should have your manuscript reviewed by someone who is fluent in English. If you would like professional help in revising this manuscript, you can use any reputable English language editing service. We can recommend our affiliates Nature Research Editing Service (http://bit.ly/NRES-****) and American Journal Experts (http://bit.ly/AJE_****) for help with English usage. Please note that use of an editing service is neither a requirement nor a guarantee of publication. Free assistance is available from our English language tutorial (https://www.springer.com/gb/authors-editors/authorandreviewertutorials/writinginenglish) and our Writing resources (http://www.biomedcentral.com/getpublished/writing-resources). These cover common mistakes that occur when writing in English.

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