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OPEN PEER REVIEW

MIC Determination of Silver Nanoparticles on Nystatin-Resistant *Candida albicans* in Patients with Denture Stomatitis: An In Vitro Study

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About this report

This open peer review (OPR) report shows the public comments made on this article during peer review, by the reviewers, the associate editor and the editor-in-chief, for every revision round, together with the authors' replies. Comments appear only with the consent of the people who wrote them. Reviewers who chose to sign their report are named; the others are shown as "Referee". Comments are edited for language only, and confidential remarks to the editors are not included.

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1 Original submission

4 comments · 20 Jun 2023 – 18 Jul 2023

Referee 1 Reviewer

MINOR REVISION 20 Jun 2023

Dear authors,
Thank you for your valuable work.
1- Please change your title to " MIC Determination of silver nanoparticles on nystatin-resistant Candida albicans in patients with denture stomatitis: An in vitro study"
2- Please mention Candida isolated from dentures in patients with or without denture stomatitis in the "material and methods section".
3- This article can be recommended for the discussion section:
"Effect of Propolis Mouthwash on the Treatment of Denture Stomatitis:
A Clinical Trial Study"

Referee 2 Reviewer

MAJOR REVISION 11 Jul 2023

Major revision
1. Please revise the abstract and use more precise sentences. For example, "In this study, 8 species showed MIC of more than 1". What do you mean by "1"? What is the unit?
2. Some of the sentences in the "introduction section" require references, for example, "In older studies, systemic disorders, especially immunodeficiency, were introduced as the main factors of DS" or "DS are characterized by a patch or generalized erythema in the oral mucosa covered by dentures, and it is more common in women maxillas."
3. Please explain more about silver nanoparticles and give examples of killing gram-positive and gram-negative bacteria and fungi.
4. The novelty of the research needs to be clarified as there are numerous studies on the effect of silver nanoparticles on microorganisms.
5. Please detail the concentrations used in mg or µg for nanoparticles and the drug in the "method" section.
6. Please replace " Landa" with "µl" and "cc" with "'ml".
7. Please include the names of different strains in the "method" section.
8. The "method" section requires substantial revision (include more details and improve the English).
9. Please revise the sentence "In this study, in the nystatin group, 8 species out of 20 showed a MIC of more than 1" again in the "result" section.

Associate Editor

MINOR REVISION 16 Jul 2023

Dear Author,
We are pleased to inform you that your manuscript entitled [Determination of MIC nanosilver on nystatin-resistant Candida albicans fungal biofilms in patients with denture stomatitis: An in vitro study] has been accepted for publication with minor revision. We encourage you to carefully review these comments and make any necessary revisions to your manuscript before submitting the final version.

Editor-in-Chief MAJOR REVISION 18 Jul 2023

Dear Authors
According to the reviewers' comments, your article requires major revision. When revising your manuscript, please consider all issues mentioned in the reviewers' comments carefully: please outline every change made in response to their comments and submit the required files.

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Revision 1

AUTHORS' RESPONSE TO REVIEWERS

Authors' reply to reviewers

The next pages contain the authors' point-by-point reply to the comments of this revision round, as submitted with the revised manuscript. It is published as the authors wrote it.

“Peer Review”

Manuscript ID: 138030
Title: Determination of MIC nanosilver on nystatin-resistant Candida albicans fungal biofilms in patients with denture stomatitis: An in vitro study

Dear Dr. Ehsani,

Thank you for giving me the opportunity to submit a revised draft of my manuscript. We appreciate the time and effort that you and the reviewers have dedicated to providing your valuable feedback on the manuscript, and we are grateful to the reviewers for their insightful comments on my paper. We have been able to incorporate changes to reflect the suggestions provided by the reviewers. We have highlighted the changes within the manuscript. Here is a point-by-point response to the reviewers’ comments and concerns:

Reviewer comments
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Reviewer 1:

Dear authors,

Thank you for your worth work.

1- Please change your topic to" MIC Determination of silver nanoparticles on nystatin-resistant Candida albicans in patients with denture stomatitis: An in vitro study"

Response: with many thanks, the manuscript’s title has changed based on your opinion (Line 1).

2- Please mention Candida isolated from dentures in patients with or without denture stomatitis in the "material and methods section"

Response: thank you for your comment, in the section “3.2. method” it is mentioned that the samples came from patients with denture stomatitis: “The specimens were isolated from the inner surface of the patient’s dentures with DS who had been studied in previous projects, and their samples were available in the Department of Medical Parasitology and Mycology repository” (Lines 84-86).

3- This article can be recommended for the discussion section:

"Effect of Propolis Mouthwash on the Treatment of Denture Stomatitis: A Clinical Trial Study"

Response: Thank you for your suggestion. The mentioned article was added to the discussion section (Lines 158-163, and 344).

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Reviewer 2:

Major revision

1- Please revise the abstract and introduce more precise sentences. For example, "In this study, 8 species showed MIC of more than 1". What do you mean by "1"? What is the unit?

Response: with many thanks, the abstract section was rewritten with more details (Lines 9-23).

2- Some of the sentences require references in the "introduction section", for example, "In older studies, systemic disorders, especially immunodeficiency, were introduced as the main factors of DS" or "DS are characterized by a patch or generalized erythema in the oral mucosa covered by dentures, and it is more common in women maxillas."

Response: many thanks for your attention to the details, the mentioned required references are cited at the end of each paragraph. However, the references have been updated and the reference numbers were placed at the end of sentences (Lines 26-46).

3- Please explain more about silver nanoparticles and give examples of killing gram-positive and gram-negative bacteria and fungi.

Response: with many thanks, more information about silver nanoparticles and bacteria examples was added to the manuscript (Lines 48-60).

4- The novelty of the research needs to be clarified as there are numerous studies on the effect of silver nanoparticles on microorganisms.

Response: with many thanks, various articles analyzed the effects of AgNPs on *Candida sp*. However, no study has been conducted to analyze the effects of these nanoparticles on the **nystatin-resistant species**. Only Falcão *et al.* (2022) evaluated AgNPs' impacts on the fluconazole-resistant *Candida albicans* strains. Considering the high frequency of candida infections and an increasing number of drug-resistant species, exploring new approaches for the control and treatment of such infections seems inevitable (Lines 61-66).

5- Please detail the concentrations used in mg or µg for nanoparticles and the drug in the "method" section.

Response: with many thanks, the concentration of AgNPs was 400 µg/ml which was mentioned in the “3.1. Materials” section (Line 78). Based on the reviewer's

opinion, all concentrations have also been mentioned in the “3.2. Method” section (Lines 88-89).

6- Please replace " Landa" with "µl" and "cc" with "'ml".

Response: with many thanks, the units have changed based on the comment (Lines 16, 19, 78, 88, 92, 106, 130-134, 141).

7- Please include the name of different strains in the "method" section.

Response: with many thanks, 20 specimens were oral candida albicans, and one was standard candida albicans (ATCC:10261) (Lines 83-84).

8- The "method" section requires substantial revision (include more details and improve English).

Response: with many thanks, the method section was rewritten (Lines 104 -121).

9- Please revise the sentence "In this study, in the nystatin group, 8 species out of 20 showed a MIC of more than 1" gain in the "result" section.

Response: with many thanks, the mentioned sentence has been changed to “In this study, 20 oral candida specimens were evaluated. The results revealed that 8 specimens (40%) represented a MIC of more than 1 when they were exposed to nystatin.” (Lines 144-145).

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Associate Editor's Comments:

Associate Editor 1:

Dear Author,

We are pleased to inform you that your manuscript entitled [Determination of MIC nanosilver on nystatin-resistant Candida albicans fungal biofilms in patients with denture stomatitis: An in vitro study] has been accepted for publication with minor revision. We encourage you to carefully review these comments and make any necessary revisions to your manuscript before submitting the final version.

Thank you for your time and efforts. We revised the manuscript based on the reviewers’ comments.

Please do not hesitate to contact us for any further revisions.

Best regards

2 Revision 1

1 comment · 13 Aug 2023

Editor-in-Chief

ACCEPT 13 Aug 2023

Dear Authors
We are pleased to inform you that your article is accepted for publication in the MEJRHS. We hope to receive other qualified articles from your group.