

Review of: "The Efficacy of Copper Nanoparticles in Treating Viral Skin Infections: A Systematic Review and Meta-Analysis"

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Potential competing interests: No potential competing interests to declare.

Dear Gabri

Peer Review Team, Qeios

Thank you very much for this opportunity.

I went through the article. It has tried to explore the importance and medicinal value of the copper nanoparticles. This area is very new and potentially growing area which could have great contributions in future. Authors have made efforts to make article as simple as the laymen can easily understand. However, the following points are still lacking. I strongly suggest authors to consider the following comments for further improvement of article.

- i. Its simple and very superficial. Authors have reviewed miserable literatures.
- ii. Antimicrobial activity of nanoparticles is strongly size dependent. This article does not give the size variant antimicrobial activity.
- iii. Authors have tried to give mechanism but limited to a single sentence "These nanoparticles have been shown to inhibit viral replication by disrupting the viral envelope and interfering with the functions of viral proteins". Only this sentence cannot give complete mechanism. How nanoparticle can control replication mechanism? How it can rupture cell membrane? Detailed mechanism with appropriate sketch could be suitable.
- iv. The effectiveness of the medicine is also depends on dose. Effective dose of the nanoparticle to cure the skin problem has not been compared.
- v. This paper only gives the summary but not specific area. How copper nanoparticles can be used for all types of skin problems? These must be specific towards microorganism.
- vi. It has been mentioned that these nanoparticles are effective against various skin diseases but has not been mentioned the quantitative findings.
- vii. Properties of the copper nanoparticles not only depends on their size but also their synthetic routes. Are the nanoparticles compared in this article synthesized from same route?

vii. Correction on writing coherence and typos erros needed.