

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

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Copper nanoparticles exhibit diverse sizes, shapes, surface ligands, and charges, all of which significantly impact their potential toxicity and constrain their application in biomedicine. Unfortunately, this review overlooks these critical factors. The authors fail to address various synthesis methods, their influence on surface properties, and potential product contamination. Furthermore, the presence of colloquial language and oversimplification detracts from the comprehensive nature of the text, compounded by the absence of graphical representations.

According to authors the study aims to enrich the understanding of copper nanoparticles' use in dermatology and provide guidance for future research and clinical practice. However, it falls short in offering practical guidance. For instance, the chapter on 'The Prevalence and Impact of Viral Skin Infections' requires expansion with extensive numerical data and specific examples detailing the influence of skin changes on various problems.

The description of copper nanoparticles as 'tiny particles' lacks professional precision, considering 'nano' as a well-defined prefix. The crucial aspect of skin penetration by nanoparticles, determined by their size and shape, warrants a more thorough discussion. Similarly, the 'Mechanisms of Action of Copper Nanoparticles against Viral Infections' chapter is disproportionately brief; it should be a focal point, elucidating how copper enhances the body's immune response. Please, use expanded citations.

The statement about copper nanoparticles' promise in treating skin conditions lacks specificity; citing examples would enhance its credibility. Moreover, in metaanalysis listing the keywords used for the search is needed. Next, methodology chapters' excessive segmentation is unnecessary and could benefit from consolidation for a more coherent structure.

The review should refrain from colloquial expressions such as, 'Let's be honest.' Instead, focus on integrating the discussion on safety aspects earlier in the motivation section without referencing unrelated proverbs. The repetition concerning safety assessments of copper nanoparticles could be streamlined into a single, concise sentence without repetitions.

The chapter comparing copper nanoparticles with standard antiviral therapies is redundant and should have been addressed earlier in the motivation section. Additionally, the summary fails to introduce novel ideas for the field's advancement.

Summarizing, the article's structure must be improved. The introduction should comprehensively outline the current understanding of nanoparticle antiviral effects, particularly in wound healing therapy, while articulating the motivation for researching this area. The methodology section requires a more intricate presentation, and visual aids such as graphs or tables would enhance the presentation of data. Finally, the authors should propose directions for advancing the field.