

Peer Review

Review of: "New Insight into Erythema Reduction Induced by Quercetin–Metal Ion Chelates"

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The study presents new insights into the interactions between quercetin and biocompatible metal ions (copper and iron) and their potential applications in skin health and inflammation reduction. It employs a variety of spectroscopic techniques, including absorbance, thermal scan, and fluorescence measurements, to investigate the interactions between quercetin and metal ions. In addition, it uses statistical analysis to support its findings, demonstrating significant differences in the effects of quercetin–metal ion chelates on erythema reduction.

However, the study still has some weaknesses and needs some improvements:

1. Please improve the clarity and conciseness of the writing by simplifying sentence structures, using more precise language, and avoiding repetition.
2. Please add the METHODS section to clarify the experimental details. For example, was the 2-propanol solubilized in water to form the 50% and 80% solutions?
3. If possible, please explore the molecular mechanisms underlying the observed anti-inflammatory effects of quercetin–metal ion chelates using simple biological techniques such as gene expression analysis and protein assays. Delving into the underlying molecular mechanisms in detail could be beneficial to expand the scope of this study.
4. Discuss the potential implications of the findings for cosmetology and dermatology, and explore potential applications of quercetin–metal ion chelates in the development of new therapeutic agents or skin care formulations.

Declarations

Potential competing interests: No potential competing interests to declare.