

Evaluation of the Biological Activities of Chrysin as an Important Perspective in the Treatment of Infectious and Cancer Diseases

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Abstract : Background and Aim: Chrysin, a flavonoid compound found in medicinal plants, honey, and propolis, has potential biological activities that make it an important perspective in the treatment of infectious and cancer diseases. The aim of this review study is to evaluate the biological activities of chrysin in the treatment of infectious and cancer diseases. Material and Methods: The present study is a review study that searched reputable scientific databases such as PubMed, Google Scholar, Scopus, and Web of Science from 2000 to 2023 using keywords such as antimicrobial, antifungal, chrysin, anticancer, antioxidants, and infectious diseases. The researchers examined 25 articles to determine the biological activities of chrysin. Results: Chrysin has high inhibitory or lethal activities on gram-positive and gram-negative bacteria, including *Staphylococcus aureus*, *Escherichia coli*, *Pseudomonas aeruginosa*, *Bacillus subtilis*, and *Enterococcus faecalis*. It also has anti-biofilm effects and antifungal effects on strains such as *Aspergillus niger* and *Candida albicans*. Chrysin also has anticancer effects on various cancers, including colorectal cancer, pancreatic cancer, breast cancer, and MCF-7 cancer, which have been confirmed in vitro and in vivo. Conclusion: Chrysin has the potential as an important therapeutic option in the treatment of infectious and cancer diseases. Its high antimicrobial and anticancer activities, combined with its low toxicity in nanoparticle form, make it a promising candidate for further clinical trials. The production of anti-microbial and anti-cancer drugs from natural substances, such as chrysin, is a valuable contribution to the field of medicine.

Keywords : chrysin, antimicrobial, anticancer, infectious diseases

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