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Review Article

Ethnopharmacology, Phytochemistry and Pharmacological Properties of Cortex Phellodendri Chinensis: A Comprehensive Review

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ABSTRACT

Ethnopharmacological Relevance: Cortex Phellodendri Chinensis (CPC), a traditional Chinese medicine known as “HuangBai” in China, are being widely employed as its health benefits. CPC has the function of clearing heat and expelling dampness, purging fire and removing toxin, detumescencing and removing necrotic tissue, which have the treatment for a variety of diseases.

Aim of The Study: The present review is intended to summarize the current researches on the phytochemistry, pharmacological significances and medicinal uses of CPC, hoping to provide reference and scientific basis for the research of bioactive ingredients, quality markers of CPC, as well as further development and utilization in treatment of human diseases with CPC.

Materials and Methods: Extensive search of various documents and electronic databases such as Pubmed, Royal Society of Chemistry, Science Direct, Springer, Web of Science, and Wiley, etc., were done to obtain data. Other online academic libraries, e.g. Google Scholars, Scopus and national pharmacology literature were also been employed to learn more information about CPC. Additional information was derived from herbal classic books, Chinese pharmacopoeia, Postgraduate theses, China national knowledge internet, etc.

Results: The comprehensive analysis of the electronic database and literatures demonstrated that CPC is a valuable herbal medicine with multiple pharmacological effects. Phytochemical and pharmacological analysis indicated alkaloids are the major bioactive ingredients in CPC. However, there are no reports on the research of quality markers of CPC, which means in a short time, there will emerge many studies to fill this gap. Under the guidance of traditional Chinese medicines theory, CPC is usually combined with other traditional Chinese medicines into prescriptions for various clinical use.

Conclusions: This review summarized the results from current researches about the basic characteristics of CPC, such as bioactive constituents, pharmacological effect and mechanism of action, which are still being studied and explored in order to realize the optimal medical practice. Meanwhile, it points out the existed problems of the current researches of CPC and puts forward some suggestions for the future research of CPC.

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