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论文

雷公藤提取物在神经免疫性疾病中的药理效应和机制研究进展

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摘要：

雷公藤提取物具有显著的抗炎和免疫抑制活性，临床上被广泛用于类风湿性关节炎等自身免疫性疾病的治疗，在抗肿瘤和抗器官移植排斥方面也有很强的作用。随着免疫炎症机制在阿尔茨海默病、帕金森病、多发性硬化等神经变性疾病中的研究进展，抗炎和免疫调节也成为延缓这些疾病病程的重要策略。新近研究发现，雷公藤提取物能促进神经元的存活和轴突伸展，促使受损的脑功能恢复，从而延缓多种神经变性疾病的病理生理进展。药理研究表明，雷公藤提取物的药理效应与其抑制过度活化的胶质细胞产生的神经炎性毒性、抗氧化、调节神经钙通道、调节T细胞功能及其神经营养作用有关。分子水平的研究显示，对NF-κB信号的抑制是雷公藤提取物主要的靶点。因而，雷公藤提取物在神经免疫炎症性疾病中具有很好的开发价值和临床应用前景。

关键词： 雷公藤内酯醇 雷公藤氯内酯醇 (5*R*)-5-羟雷公藤内酯醇 神经免疫 神经炎症 神经变性

Advances in the study of immunopharmacological effects and mechanisms of extracts of *Tripterygium wilfordii* Hook.f. in neuroimmunologic disorders

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Abstract:

Extracts of Chinese herb *Tripterygium wilfordii* Hook.f. (TWHF) have been found to have potent anti-inflammatory and immunosuppressive functions and widely used in China for treatment of rheumatoid arthritis. Also they have been considered to be the potential drugs in the treatment of tumor and acute graft rejections. With the progress of neuroimmunological research on neurodegenerative diseases, such as Alzheimer's disease (AD), Parkinson disease (PD) and multiple sclerosis(MS), the neuroprotective strategies to rescue neurons from immunological injury are currently being explored. Recently, studies have indicated that extracts of TWHF such as triptolide, tripchlorolide and (5*R*)-5-hydroxytriptolide are able to attenuate progression of these neuroimmunologic disorders *in vitro* and *in vivo*. Accumulating evidence has shown that they can promote neuronal survival and neurite growth and facilitate functional recovery of brain injury by invoking distinct mechanisms that are related to their neuroprotective roles as inhibitor of neuroinflammatory toxicity of activated-microglia, antioxidants, calcium channel blockers, neurotrophic actions, modulating T cell functions, inhibitor of transcriptional activation of NF-κB on genes and signaling. Significant pharmaceutical strategies against neuroimmunologic disorders will hopefully be discovered by understanding the valuable components of TWHF.

Keywords: tripchlorolide (5*R*)-5-hydroxytriptolide neuroimmunology neuroinflammation triptolide

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