

عنوان مقاله:

Downregulates the expression of Toll-Like Receptors in Experimental Autoimmune Encephalitis mice by Picrocrocin

محل انتشار:

بیست و یکمین کنگره ملی و نهمین کنگره بین المللی زیست شناسی ایران (سال: 1399)

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خلاصه مقاله:

Multiple sclerosis is a neurodegenerative disease of CNS in which, inflammation causes the myelin to disappear, ensuing disturbances in vision, speech, walking and memory. This overwhelming inflammatory pattern is accompanied by a progressive increase in free-radicals generation resulting to oxidative stress. Toll-like receptors (TLRs) are a class of proteins that play a key role in the innate immune system. TLR-mediated activation of innate immunity is involved not only in host defense against pathogens but also in immune disorders such as MS. The aim of this study was potential therapeutic effects of Picrocrocin in different models of oxidative stress-induced neurodegenerative disorders. Following the induction of Experimental Autoimmune, the potential effects of Picrocrocin (۲۰۰mg/kg/day i.p.), as an herbal antioxidant on the mRNA expression different members of TLR family using real-time RT-PCR was evaluated. Encephalitis (EAE) is an animal model of Multiple Sclerosis. Although the expression of TLR-۲, TLR-۳ and TLR-۴ were increased in EAE animals spinal cords, injecting Picrocrocin could significantly downregulate the TLR-۲ and TLR-۴ expression at day ۵ after induction of EAE, resulting in alleviation of overall inflammatory responses. These observations reveal that saffron extract may be valuable in the treatment of MS on several fronts as well as the disturbances in oxidative stress parameters in the hippocampus of experimental models of MS.

کلمات کلیدی:

Multiple sclerosis, TLR-۲, PCRRT

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