عنوان مقاله:

Genus Boswellia as a new candidate for neurodegenerative disorders

محل انتشار:

مجله علوم پایه پزشکی ایران, دوره 23, شماره 3 (سال: 1398)

تعداد صفحات اصل مقاله: 10

نویسندگان:

Arezoo Rajabian - *Pharmacological Research Center of Medicinal Plants, Mashhad University of Medical Sciences, Mashhad, Iran*

Hamid Reza Sadeghnia - *Department of Pharmacology, Faculty of Medicine, Mashhad University of Medical Sciences, Mashhad, Iran|Division of Neurocognitive Sciences, Psychiatry and Behavioral Sciences Research Center, Mashhad University of Medical Sciences, Mashhad*

Sahar Fanoudi - *Department of Pharmacology, Faculty of Medicine, Mashhad University of Medical Sciences, Mashhad, Iran*

Azar Hosseini - *Pharmacological Research Center of Medicinal Plants, Mashhad University of Medical Sciences, Mashhad, Iran*

خلاصه مقاله:

Neurodegenerative diseases, characterized by progressive loss of neurons, share common mechanisms such as apoptotic cell death, mitochondrial dysfunction, inflammation, and oxidative stress. Genus Boswellia is a genus in the Burseraceae family. It comprises several species traditionally used for treatment of chronic inflammatory diseases, cerebral edema, chronic pain syndrome, gastrointestinal diseases, tumors, as well as enhancing intelligence. Many studies have been carried out to discover therapeutic approaches for neurodegenerative diseases such as Alzheimer's diseases, Parkinson's disease, Huntington's disease, multiple sclerosis and amyotrophic lateral sclerosis, stroke, and concomitant cognitive deficits. However, no curative treatment has been developed. This paper provides an overview of evidence about the potential of the Boswellia species and their main constituents, boswellic acids, as modulators of several mechanisms involved in the pathology of the neurodegenerative diseases. In vitro, animal, and clinical studies have confirmed that Boswellia species contain bioactive components that may enhance cognitive activity and protect against neurodegeneration. They exert the beneficial effects via targeting multiple pathological causes by antioxidative, anti-inflammatory, antiamyloidogenic, and anti-apoptotic properties. The Boswellia species, having neuroprotective potential, makes them a promising candidate to cure or prevent the neurodegenerative disorders.

کلمات کلیدی:

Alzheimer's diseases, Boswellia, Cognitive, Neurodegenerative diseases, Neuroprotection