



Flavonoids for Neurological Disorders

Advances and Future Prospects

Rishabha Malviya | Kamla Pathak
Shraddha Dwivedi | Sonali Sundram
Editors



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Curcumin as Neuroprotective Agent

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ABSTRACT

The occurrence of specific pathological abnormalities in the brain, such as cellular inclusions, protein deposits outside cells, and changes in cell shape, is a defining characteristic of neurodegeneration. Besides acute neurodegenerative conditions like ischemic stroke and hemorrhagic stroke, OS might play a causal part in the development of progressive neurodegenerative disorders like PD and AD. Antioxidants that protect neurons are thought to be a promising strategy for reducing extent and speed of death of neurons in certain illnesses. Curcumin, polyphenolic substance discovered in the tuber of turmeric which is also called *Curcuma longa*, has been identified as an active agent when treating a variety of central nervous system diseases, exhibits multiple pharmacological impacts, making it a versatile component. It is well known for its potent antioxidant, and that is well documented to possess multifunctional therapeutic benefits for various chronic conditions. In ailments like AD, major depressive disorder, tardive dyskinesia, epilepsy, and other related neurodegenerative and neuropsychiatric conditions, curcumin exhibits neuroprotective qualities. It effectively suppresses the expression of reactive astrocytes, preventing cell death, and also regulates several neurotransmitter levels in the brain. In this review, we will focus on the current state of the art of curcumin as a potential remedy for various neurological conditions.

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