

PUBLICATIONS

PROPOLIS AS A THERAPEUTIC OPTION FOR NEURODEGENERATIVE DISEASES SPECIFICALLY ALZHEIMER'S DISEASE

Noureddine Djebli

*Pharmacognosy Api Phytotherapy laboratory-Abdelhamid Ibn Badis Mostaganem
University, Algeria*

Alzheimer's disease is a progressive neurodegenerative disorder that affects the brain. Some studies have shown that propolis, thanks to its beneficial natural components, may help support brain health and prevent the cognitive decline associated with Alzheimer's disease. This research aims to study the neuroprotective effect of propolis against Alzheimer's disease through an experiment conducted on Wistar Rats. The Rats were divided into five groups: a control group, an Alzheimer's model group, two groups treated with propolis at two different doses (100 and 200 mg/kg), and a reference group treated with rivastigmine at a dose of 1.5 mg/kg. The experimental protocol was carried on the induction of Alzheimer's disease through oral administration of aluminum chloride combined with D-galactose via intraperitoneal injection and the Rats received daily doses of propolis (100 and 200 mg/kg) as well as rivastigmine (1.5 mg/kg) via intragastric gavage over 35 days. Subsequently, neurological tests were performed, including memory and behavioral assessments, as well as histological examinations of the brain, particularly in the hippocampus and cortex. The neurological tests showed positive results in terms of reduced anxiety and improved behavioral activity in Alzheimer's model Rats treated with propolis at doses of 100 and 200 mg/kg, compared to the untreated Alzheimer's model group. Memory test results also indicated that Rats treated with propolis at these doses showed significant recovery, with improvements in memory and learning ability. As for the histological study, both doses demonstrated positive effects; examination of brain tissues (hippocampus and cortex) revealed that propolis helped reduce neuronal damage and improve tissue structure.

These results suggest that propolis has promising neuroprotective properties against the cognitive decline associated with Alzheimer's disease.