

## **Efficacy of edible bird's nest on cognitive functions in experimental animal models: a systematic review**

### **ABSTRACT**

Edible bird's nest (EBN) is constructed from saliva of swiftlets birds and consumed largely by Southeast and East Asians for its nutritional value and anti-aging properties. Although the neuroprotection of EBN in animals has been reported, there has not been yet systemically summarized. Thus, this review systemically outlined the evidence of the neuroprotective activity of EBN in modulating the cognitive functions of either healthy or with induced-cognitive dysfunction animals as compared to placebos. The related records from 2010 to 2020 were retrieved from PubMed, Scopus, Web of Science and ScienceDirect using pre-specified keywords. The relevant records to the effect of EBN on cognition were selected according to the eligibility criteria and these studies underwent appraisal for the risk of bias. EBN improved the cognitive functions of induced-cognitive dysfunction and enhanced the cognitive performance of healthy animals as well as attenuated the neuroinflammations and neuro-oxidative stress in the hippocampus of these animals. Malaysian EBN could improve the cognitive functions of experimental animals as a treatment in induced cognitive dysfunction, a nutritional cognitive-enhancing agent in offspring and a prophylactic conservative effect on cognition against exposure to subsequent noxious cerebral accidents in a dose-dependent manner through attenuating neuroinflammation and neuro-oxidative stress. This systemic review did not proceed meta-analysis.

**Keyword:** Cognition; Neurodegeneration; Neuroprotection; Edible birds' nest; Systematic review