

Schisandra chinensis for dementia: a narrative overview of reviews

Michele Antonelli, MD; Davide Donelli, MD; Fabio Firenzuoli, MD

CERFIT, Careggi University Hospital, Florence (Italy)

INTRODUCTION

Schisandra chinensis is a plant of Chinese origin with characteristic red berries (“five flavor fruit”) used for various medicinal purposes.



AIM

To understand if *S. chinensis* and its active compounds can have beneficial effects for age- and disease-related cognitive decline.

METHODS

Scientific databases: PubMed, Cochrane Library, Google Scholar.

Keywords: “Schisandra chinensis”, “schisandrin”, “dementia”, “cognitive”, “ageing”, “brain”, “Alzheimer*”.

Search date: October 12th, 2020.

RESULTS

Active compounds (lignans):

schisandrin A, schisandrin B, schisandrin C, gomisin A, schisanthenol, schisantherin A.

Study populations:

mostly mice and rat models of neuro-degeneration and brain damage.

Pharmacological effects (based on laboratory experiments):

reduction of amyloid- β -induced and glutamate-induced neurotoxicity, decrease of neuro-inflammation (IL-1, IL-6, TNF-alpha, inducible NOS, PGE-2, COX-2), regulation of neuronal apoptosis (calcium signaling pathway), improvement of mood, cognitive performance and memory.

Clinical evidence (limited):

improvement of cognitive performance when *S. chinensis* is administered in combination with *Eleutherococcus senticosus* and *Rhodiola rosea*.

CONCLUSIONS

Schisandra chinensis might have **neuro-protective effects** against some brain degenerative pathomechanisms and can be a valid option to study with dedicated clinical investigations.

BIBLIOGRAPHY

Kun, C., Feiyi, S., Jian, D., Feng, C., Guihua, W., Jiangping, Z., ... & Xiaowei, H. (2020). **Network pharmacology-based study on the mechanism of Schisandra chinensis for treating Alzheimer's disease.** Indian Journal of Pharmacology, 52(2), 94.

Nowak, A., Zakłós-Szyda, M., Błasiak, J., Nowak, A., Zhang, Z., & Zhang, B. (2019). **Potential of Schisandra chinensis (Turcz.) Baill. in human health and nutrition: a review of current knowledge and therapeutic perspectives.** Nutrients, 11(2), 333.

Sowndhararajan, K., Deepa, P., Kim, M., Park, S. J., & Kim, S. (2018). **An overview of neuroprotective and cognitive enhancement properties of lignans from Schisandra chinensis.** Biomedicine & Pharmacotherapy, 97, 958-968.

