

Evidence summary

Chinese medicine for vascular dementia

This summary of key findings from *Volume 9: Vascular dementia*¹ of the Evidence-based Clinical Chinese Medicine monograph series outlines:

- what vascular dementia is
- current treatments
- findings from research into classical Chinese medicine literature and modern Chinese medicine clinical studies.

What is vascular dementia?

Vascular dementia is a chronic disease that results from damaged blood vessels and/or poor blood flow in the brain. The most common cause is stroke, but other causes include nerve damage and brain tissue damage. The main symptoms of vascular dementia are a decline in memory and intellectual ability, and difficulty in performing daily activities.² Factors that increase the risk of developing heart disease (e.g. smoking, high blood pressure, smoking) also increase the risk of developing vascular dementia.³

Current treatments

As vascular dementia is associated with heart disease, conventional treatment usually combines heart disease medicines with guideline-recommended medicines for dementia, including donepezil, galantamine, rivastigmine and memantine.²

Chinese medicine treatment options for vascular dementia include Chinese herbal medicine, acupuncture, moxibustion, electroacupuncture, Jin's three needle therapy, *tai chi* and *qigong* exercise, and *tuina* (Chinese massage). Cognitive training through exercises like reading, singing and playing chess may also improve cognition. Chinese medicine practitioners base their treatments on the patient's symptoms, relevant clinical textbooks and guidelines, research and clinical experience.

Classical Chinese medicine literature

The *Encyclopedia of Traditional Chinese Medicine (Zhong Hua Yi Dian)* is a large and important collection of Chinese medicine books. It includes 126 references to treatments for cognitive impairment with stroke (the combination considered most likely to relate to vascular dementia). Of these, 92 related to Chinese herbal medicine and 34 to acupuncture therapies.

The most frequent Chinese herbal medicine formulas were *Qiang huo yu feng tang* (seven references), and *Pai feng tang*, *Song jie san*, *Da ba feng tang* and *Niu huang qing xin wan* (four references each). None of the formulas identified in the search were still recommended in clinical guidelines.

Acupuncture and moxibustion were mentioned in 34 references. Both treatments continue to be recommended in clinical textbooks and guidelines.

Modern Chinese medicine clinical studies

To write the *Vascular dementia*¹ monograph, five English-language and four Chinese-language biomedical databases were searched in May 2014. This search identified 314 relevant clinical studies of Chinese medicine for vascular dementia-like symptoms. Of these, 248 were randomised controlled trials, 12 non-randomised controlled clinical trials, and 54 non-controlled studies. An additional search of the International Clinical Trials Registry Platform conducted in April 2021 revealed three newly published randomised controlled trials of Chinese herbal medicine.

Chinese herbal medicine

All of the 180 randomised controlled trials of Chinese herbal medicine used oral

administration. Chinese herbal medicine improved Mini-Mental State Examination (MMSE) scores more than no treatment and placebo. Similar findings were observed when cognition was measured using the Hasegawa's Dementia Scale (HDS). Chinese herbal medicine alone produced similar changes in MMSE to donepezil. Combining Chinese herbal medicine with donepezil was more effective than donepezil alone in improving MMSE scores.

In two studies using the Alzheimer's Disease Assessment Scale-cognitive section, Chinese herbal medicine used alone was as effective as donepezil, but when it was combined with donepezil, there was no additional benefit.

Chinese herbal medicine appears to be well tolerated, but few studies fully reported its safety.

Results from three newly published trials supported those from previous research: Chinese herbal medicine improved cognition measured using the Vascular Dementia Assessment Scale-cognitive section more than placebo, but not more than donepezil. The Chinese herbal medicines were as safe as placebo.

Acupuncture therapies

Acupuncture therapies were tested in 47 small, short randomised controlled trials. Results suggested that acupuncture and/or electroacupuncture was as effective as donepezil in one study, and more effective than other medicines at improving cognition scores on the MMSE in other studies. Combining acupuncture and/or electroacupuncture with medicines also improved MMSE scores more than the medicines alone.

Compared to medicines alone, acupuncture and/or electroacupuncture improved cognition scores on the HDS

when used alone and when combined with medicines.

Key messages

- Chinese herbal medicine and acupuncture have been used for dementia-like symptoms for centuries.
- Chinese herbal medicine used alone or with conventional medicines improved cognition.
- Acupuncture may improve overall symptoms, but more research is needed.
- Chinese medicine practitioners should discuss the potential risks and benefits of Chinese medicine treatment with patients and their caregivers.

For more information

You can find out more about Chinese medicine for vascular dementia in the book *Evidence-based Clinical Chinese Medicine Volume 9: Vascular dementia*¹ from <https://doi.org/10.1142/11403>

To find out more about Chinese medicine research at the China–Australia International Centre for Chinese Medicine, visit www.rmit.edu.au/research/centres-collaborations/multi-partner-collaborations/cairccm

References

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3. Roman GC, et al. (2004) Vascular cognitive disorder: A new diagnostic category updating vascular cognitive impairment and vascular dementia. *J Neurol Sci* 226(1–2):81–87.

Disclaimer

This evidence summary is not intended as a guide for self-medication or medical advice – patients should seek professional advice from qualified Chinese medicine practitioners.