

### **Evidence summary**

### Chinese medicine for cervical radiculopathy

This summary of key findings from *Volume 29: Cervical radiculopathy*<sup>1</sup> of the Evidence-based Clinical Chinese Medicine monograph series outlines:

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

# What is cervical radiculopathy?

Cervical radiculopathy is a degenerative disease affecting the discs between cervical (neck) vertebra.<sup>2</sup> When these discs deteriorate, nerves in the spine may become compressed or impeded,<sup>3</sup> leading to symptoms including neck or arm pain, numbness, muscle weakness and impaired reflexes.<sup>2</sup> Risk factors for developing cervical radiculopathy include manual labour with heavy lifting, driving, operating vibrating equipment and smoking.<sup>3</sup>

#### **Current treatments**

The main conventional medical treatments for cervical radiculopathy are non-steroidal anti-inflammatory drugs (NSAIDs), surgery and manipulation therapy. However, not all medicines are effective at reducing pain and inflammation, and the risk of complications from surgery and manipulation are of concern.<sup>3,4</sup>

Chinese medicine treatment options include oral and topical Chinese herbal medicine, body acupuncture, ear acupuncture/acupressure, electroacupuncture, moxibustion, cupping and *tuina* (Chinese massage). 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 significant collection of historical Chinese medicine books. These books include 684 citations describing Chinese medicine treatment of pain, numbness or soreness of the upper limb or neck. Just over half of these citations (352) described Chinese herbal medicine treatments.

Two Chinese herbal medicine formulas— Qiang huo sheng shi tang and Juan bi tang—continue to be recommended in contemporary textbooks and guidelines.

Acupuncture and moxibustion were described in 323 citations, and both of these therapies continue to be used in contemporary clinical practice.

## Modern Chinese medicine clinical studies

To write the *Cervical radiculopathy*<sup>1</sup> monograph, nine biomedical databases (five English-language and four Chineselanguage) were searched in January 2019. The search found 218 relevant clinical studies, including 119 randomised controlled trials, one non-randomised controlled clinical trial and 98 non-controlled studies.

An additional search of the International Clinical Trials Registry Platform in November 2022 revealed no newly published studies.

#### Chinese herbal medicine

Twenty-nine randomised controlled trials tested Chinese herbal medicine. Oral and topical Chinese herbal medicine were more effective than routine care (medicines, traction or a combination of both) alone in improving overall symptoms. Oral Chinese herbal medicine combined with routine

care was also more effective than routine care alone in improving overall symptoms. Oral Chinese herbal medicine was no more effective than routine care in improving pain (VAS), but oral Chinese herbal medicine combined with routine care was more effective than routine care alone. There was no such data for topical Chinese herbal medicine.

Few of the 29 randomised controlled trials reported the safety of Chinese herbal medicine for cervical radiculopathy, so the safety of this treatment remains uncertain.

#### **Acupuncture and related therapies**

Acupuncture and related therapies, like electroacupuncture and moxibustion, were tested in 23 randomised controlled trials. Body acupuncture was more effective than sham acupuncture and routine care in improving symptoms generally and pain specifically. However, body acupuncture alone did not improve health-related quality of life more than routine care alone.

Electroacupuncture improved overall symptoms more effectively than routine care, but did not reduce pain. Moxibustion improved patients' quality of life, but did not improve overall symptoms.

Most of the adverse effects reported with acupuncture were mild bleeding after the needle was removed and bruising. These are expected side effects of acupuncture that are easily managed.

### Key messages

- Chinese herbal medicine, acupuncture and moxibustion have been used throughout history to treat upper limb and neck pain.
- Chinese herbal medicine may improve symptoms and reduce pain when used alone or combined with routine care, such as traction therapy and medicines.
- Acupuncture and electroacupuncture may improve overall symptoms, and body acupuncture may reduce pain.
- Clinicians should discuss the potential risks and benefits of Chinese medicine treatments with patients, so patients can make informed choices.

#### Other Chinese medicine therapies

Forty-nine randomised controlled trials tested *tuina*. *Tuina* improved overall symptoms and reduced pain more than traction therapy. *Tuina* combined with routine care (traction therapy and physiotherapy) also improved overall symptoms and reduced pain more than routine care alone.

The safety of *tuina* was reported in 12 randomised controlled trials, among which no adverse events occurred in eight trials. Adverse events that were reported included dizziness, nausea and skin irritation. These were mild and resolved without treatment.

#### For more information

Find out more about Chinese medicine for cervical radiculopathy in the book *Evidence-based Clinical Chinese Medicine Volume 29: Cervical Radiculopathy*<sup>1</sup> from <a href="https://doi.org/10.1142/12050">https://doi.org/10.1142/12050</a>

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

#### References

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- 4. Corey DL, Comeau D. (2014) Cervical radiculopathy. *Med Clin North Am* 98(4): 791–799, xii.

#### 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.