



RUJMS

Al-Razi University Journal of  
Medical Sciences

## Acupuncture for stroke

Osamah Ezzaddin, MBBS, MMed.

<sup>1</sup>Department of Physiotherapy, Faculty of Medicine and Health Sciences, Al-Razi University, Sana'a, Yemen, <sup>2,3</sup>Department of**Abstract:**

Stroke is one of the most common cause of death especially for elderly people. The main symptom of stroke is weakness in one side of the body. During rehabilitation, patient may suffer some complications such as shoulder pain, insomnia, dysphagia, or muscle spasm. Acupuncture is widely used in china and east Asian countries for stroke rehabilitation. Many researchers studied the effect of acupuncture on stroke rehabilitation and complications prevention and treatment. Acupuncture showed positive effect on stroke rehabilitation combined with exercise. Acupuncture also showed effects on brain blood flow, dysphagia, insomnia, muscle spasticity and shoulder pain. The effect of acupuncture may vary based on what technique is used and practitioner experience. On this paper, the author reviewed many systemic reviews on the effect of acupuncture for stroke rehabilitation. Keywords: weaning criteria; Knowledge and practice; ICUs; Nurses; Sana'a

**Article Info: Received:** 15 September 2023; **Revised:** 27 September; **Accepted:** 3 October; **Available online:** 24 December 2023;  
**Cite this article:-**

Ezzaddin O. Acupuncture for stroke. Al-Razi Univ J Med Sci. 2023;39-41.

**DOI:** DOI: <https://doi.org/10.51610/rujms7.2.2023.188>

**Address for Correspondence:**

Osamah Ezzaddin: Department of Physiotherapy, Faculty of Medicine and Health Sciences, Al-Razi University.

**Introduction**

Stroke is considered the second most common cause of death after ischemic heart disease according to WHO. In china and east Asia acupuncture has been a primary medical intervention for stroke rehabilitation. Worldwide acupuncture is being used as a complementary therapy for stroke rehabilitation. (Zhang, Wang and Liu 2014)

Traditional Chinese Medicine (TCM) is a comprehensive science that studies human health and disease, including disease prevention, diagnosis, treatment, prognosis, and health care. The earliest records of TCM can be tracked to the

oracle bone inscriptions period. The theoretical system of TCM was formed about 3000 years ago. TCM guides the diagnosis and treatment of diseases from holistic and dialectical points of view based on the theory of the balance of Yin and Yang, the interaction of five elements theories, the five Zang organs, six Fu organs, extraordinary Fu organs, meridians and Qi-blood-fluid flow. (Zhang and Li 2021)

According to TCM theories, Qi which is a vital energies flows through a network of channels called meridians. The disease occurs due to disturbance of Qi flow. Acupuncture stimulate acupoints in these meridians trying to restore Qi flow, and enhance recovery from the disease.

Traditional manual acupuncture use mechanical movement of the needle to restore the Qi flow, other methods as electro-acupuncture, scalp acupuncture, warm or fire acupuncture are being used as well to restore Qi flow. (Lundeberg 2013)

### Researches on acupuncture effect on stroke

A study on the effect of acupuncture on cerebral blood flow using Transcranial doppler ultrasonography TCD showed decrease in mean velocity, pulsatility index systolic velocity which was measured at injured middle cerebral artery, except diastolic velocity. The author concluded that acupuncture could have a specific effect on injured cerebral artery. (sunho, kyungho and jonguk 2004)

A meta analyses of 38 trials found that acupuncture to be associated with better outcome than sham or no acupuncture, which means that acupuncture is likely to be effective for improving post-stroke rehabilitation (Wu, et al. 2010) . The effect of acupuncture can vary based on the method used and practitioner experience. Acupuncture shows better effects if used based on Chinese medicine diagnosis and not western medicine diagnosis.

A review by Lee et al assessed the efficacy of scalp acupuncture and found that scalp acupuncture when used with conventional treatment was associated with higher rates of clinical efficacy. The authors concluded that the evidence of acupuncture as a useful part of post-stroke rehabilitation was weak but positive. (Lee, et al. 2013)

A systematic review on the effectiveness of acupuncture for dysphagia after stroke showed that acupuncture for dysphagia after stroke has therapeutic efficacy and safety. (Zhong, et al. 2021)

A systematic review and meta-analysis showed that fire acupuncture has several advantage

compared to conventional acupuncture in treatment of muscle spasm after stroke. (Qiu, et al. 2021)

Shoulder pain is a common complication after stroke. The prevalence of shoulder pain relative to the degree of paralysis ranges up to 84%. Shoulder pain after stroke has been connected with contractures of the shoulder glenohumeral subluxation, injury of the axillary nerve, rupture of the rotator cuff, and spasticity of shoulder muscles. Acupuncture can be used for pain, especially for shoulder pain after stroke, studies showed that acupuncture combined with exercise is effective for shoulder pain after stroke. (lee, et al. 2012)

Insomnia is the most common sleep complaint affecting approximately 40-60% of stroke patients (Leppacuouri, et al. 2002). Insomnia after stroke may be caused by anxiety resulting from hyperactivity of the sympathetic nervous system or affected by damaged brain lesions. A systematic review and meta-analysis showed that acupuncture appeared to be effective for treatment of insomnia after stroke. Intradermal acupuncture had significant effects compared with sham acupuncture. (lee and lim 2016)

A meta-analysis was conducted to evaluate the efficacy of acupuncture on cognitive impairment after stroke suggested that acupuncture had positive effects on cognitive function after stroke and supports the need for additional research on the potential benefits of this therapeutic approach. (Liu, et al. 2014)

### References

1. lee, Jung ah, Si-woon park, pil woo hwang, sung min lim, Sejeong Kook, Kyung in choi, and Kyoung sook kang. 2012. "acupunctre for shoulder pain after stroke: a systematic review." the jounale of alternative and complementary medicine 818-823. doi:10.1089/acm.2011.0457.
2. Lee, SJ, BC Shin, MS Lee, CH Han, and JI Kim. 2013. "scalp acupuncture for stroke recovery: a

- systematic review and meta-analysis of randomized controlled trials." *Eur J Int Med* 87-99.
3. lee, sook-hyun, and sung min lim. 2016. "acupuncture for insomnia after stroke: a systematic review and meta-analysis." *BMC complementary and alternative medicine* 228. doi:10.1186/s12906-016-1220-z.
  4. Leppacuouri, T Pohjasvaara, M kaste, and et al. 2002. "insomnia in ischemic stroke patients." *cerebrovasc dis* 1490.
  5. Liu, Fang, Zhuang-Miao Li, Yi-Jing Jiang, and Li-Dian Chen. 2014. "a meta-analysis of acupuncture use in the treatment of cognitive impairment after stroke." doi:10.1089/acm.2013.0364.
  6. Lundeberg, T. 2013. "to be or not to be: the deedling sensation (de qi) in acupuncture." *acupunct med* 129-131.
  7. Qiu, Xuan, Yicheng Gao, Zhaoxu Zhang, Sijia Cheng, and Shuangmei Zhang. 2021. "fire acupuncture versus conventional acupuncture to treat spasticity after stroke: a systematic review and meta-analysis." *Plos one* 1-23. doi:10.1371/journal.pone.0249313.
  8. sunho, Lee, Shin kyungho, and Kim jonguk. 2004. "effect of seven points of CVA acupuncture on cerebral blood flow." *the journal of korean acupuncture and moxibustion society* 83-97.
  9. Wu, P, E Mills, D Moher, and D Seely. 2010. "acupuncture in poststroke rehabilitation: a systematic review and meta-analysis of randomized trials." *stroke* 1723-1729.
  10. Zhang, JH, DR Wang, and M Liu. 2014. "overview of systematic reviews and meta-analyses of acupuncture for stroke." *neuroepidemiology* 50-58. doi:10.1159/000355435.
  11. Zhang, SQ, and JC Li. 2021. "an introduction to traditional chinese medicine, including acupuncture." *wiley online library* 2359-2364. doi:10.1002/ar.24782.
  12. Zhong, Lida, Jing wang, Fang Li, Xiao Bao, Huiyu Liu, and Pu Wang. 2021. "the effectiveness of acupuncture for dysphagia after stroke: a systematic review and meta analysis." *Hindawi* 1-18.