

Post-Stroke Depression Relief With Acupuncture

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Acupuncture is more effective than the antidepressant paroxetine for the treatment of depression following a stroke. Hunan University of Traditional Chinese Medicine researchers investigated the effects of acupuncture on patients with post-stroke depression in a randomized controlled

clinical trial. The control group received paroxetine, an SSRI (selective serotonin reuptake inhibitor). The acupuncture treatment group achieved a total effective rate of 86.7%. The drug control group achieved a 66.7% total effective rate.

Acupuncture outperformed paroxetine across two separate indices (HAMD, SERS). The HAMD (Hamilton Rating Scale for Depression) is a 24 item symptomatic examination that measures several important aspects of mental health for depression patients (e.g., mood, suicidal tendencies, insomnia, interest in work and activities, psychomotor impairment, agitation, anxiety). Higher HAMD scores indicate increased severity of depression. The SERS (Rating Scale for Side Effects) measures is a 15 item examination of post-stroke depression adverse effects, including somatic symptoms, headache, dizziness, etc. Higher SERS scores indicate increased severity of depression's adverse effects. At the 86.7% total effective rate, the acupuncture group demonstrated greater improvement than the drug control group across both tested indices.

Design

A total of 60 patients with post-stroke depression were treated and evaluated in this study. The patients were diagnosed with post-stroke depression between October 2014 and June 2016. They were randomly

divided into an acupuncture plus drug treatment group and a drug control group, with 30 patients in each group. For the control group patients, one 20 mg paroxetine tablet was given to the patients daily, for 8 continuous weeks. The treatment group received acupuncture in addition to the identical drug therapy administered to the control group.

The statistical breakdown for each randomized group was as follows. The treatment group was comprised of 13 males and 17 females. The average age in the treatment group was 59 (± 9) years. The average course of disease in the treatment group was 15 (± 4) months. The control group was comprised of 14 males and 16 females. The average age in the control group was 58 (± 8) years. The average course of disease was 14 (± 3) days. There were no significant statistical differences in age, gender, and course of disease relevant to patient outcome measures for patients initially admitted to the study.

Acupuncture Points

The treatment group received body style acupuncture and auricular acupuncture. The acupoints for body style acupuncture therapy were as follows:

- GV20 (Baihui)
- Sishencong (Extra)
- GV24 (Shenting)
- GV29 (Yintang)
- HT7 (Shenmen)
- PC6 (Neiguan)
- LV3 (Taichong)
- LI4 (Hegu)
- ST36 (Zusanli)
- SP6 (Sanyinjiao)
- ST40 (Fenglong)

Treatment commenced with patients in a supine position. After disinfection of the acupoint sites, a 0.35 mm x 40 mm disposable filiform needle was inserted into each acupoint with a high needle entry speed. Manual acupuncture stimulation techniques for obtaining deqi including lifting, thrusting, and rotating were applied. For Baihui, Sishencong, Shenting, and Yintang, the needle was inserted transversely to a depth of 5 – 15 mm. The Ping Bu Ping Xie (attenuating and tonifying) manipulation technique was applied for 1 – 3 minutes. For the rest of the acupoints, the needle was inserted perpendicularly to a depth

of 10 – 15 mm. The Ping Bu Ping Xie (attenuating and tonifying) manipulation technique was applied for 1 – 3 minutes. A needle retention time of 30 minutes was observed. One treatment session was conducted every other day, 3 times per week, for 8 consecutive weeks.

The acupuncture group also received auricular Wangbuliuxing tapes at the following auricular acupoints, alternating between left and right sides for each acupoint:

- TF4 (Shenmen)
- AT4 (Pizhixia, Subcortex)
- CO15 (Xin, Heart)
- CO12 (Gan, Liver)

Treatment commenced with patients in a seated position. After disinfection of the acupoint sites, a metal probe tip was used to apply pressure to the local skin for the purpose of identifying sensitive acupoints. Next, seeds of Wangbuliuxing were taped onto the prescribed acupoints. Wangbuliuxing tapes were stimulated (with kneading massage motions) three times per day, with 3 minutes of stimulation each time, for a total of 8 weeks.

Results

After completion of treatment, the efficacy rates for each patient were categorized into 1 of 4 tiers based on the HAMD rating, and categorized as follows:

- *Recovery: Rating reduction of at least 75%.*
- *Significantly effective: Rating reduction of at least 50%.*
- *Effective: Rating reduction of at least 25%.*
- *Ineffective: Rating reduction of less than 25%.*

Paroxetine achieved a 66.7% total effective rate. While effective, the downside is that the medication has more adverse effects than acupuncture. Acupuncture achieved an 86.7% total effective rate, causing less adverse effects and no drug dependence. The researchers cited the ancient historical roots behind the protocol used in the study. In Traditional Chinese Medicine, post-stroke depression (PSD) falls under the Yu Zheng (translated as depression syndrome) class of disorders. TCM principles specify that PSD is often due to liver-qi stagnation, and disharmony of the spirit and orifices. On the other hand, PSD is also associated with phlegm-stasis obstructing the meridians and disharmony of qi and blood. PSD in TCM

treatment focuses on coursing the liver and resolving depression, tranquilizing the spirit and opening the orifices, and activating qi and blood circulation.

Baihui is on the Governing meridian, which runs to the top of the head. This acupoint is indicated for mental diseases. Needling this acupoint opens the orifices, regulates the Governing meridian, and refreshes the brain. Other acupoints on the head, including Sishencong, Shenting, and Yintang, supplement Baihui's role to open the orifices and regulate meridians on the head. Neiguan is a Luo-connecting point on the pericardium meridian. Shenmen is a Yuan-source point on the heart meridian. Needling these two acupoints calms the mind and tranquilizes the spirit. Needling Zusanli dredges the meridians, fortifies the spleen and stomach, and calms the heart and spirit. Needling Sanyinjiao regulates qi and blood circulation in the corresponding zang organs (including the spleen, liver, and kidney). Needling Taichong soothes liver-qi. Needling Fenglong transforms phlegm and dredges the meridians.

The researchers (Zhang et al.) cited independent scientific research finding auricular acupuncture effective for the treatment of PSD. They note that a previous study documents that auricular acupuncture activates networks of neurons in the brain, regulates excitation and inhibition functions of the cerebral cortex, and thus relieves stress and depression. Another study notes that "While acupuncture regulates meridian networks, auricular acupuncture normalizes the brain-gut axis associated with PSD." Needling Xin and Gan regulates the corresponding organs (including the heart and liver), and therefore calms the heart, soothes the liver, and quiets the spirit. Needling Shenmen quiets the spirit and dredges the meridians. Needling Pizhixia regulates the nervous system and the brain.

Patient Care

This research invites many questions. For example, is acupuncture more effective than the SSRI medication because of its mental health benefits or is it because acupuncture provides physical benefits to patients that offer hope and encouragement? Given the success of both medications and acupuncture, is a combination of these therapies additive or synergistic? Additional research is warranted based on the important findings of Zhang et al. in their research. Given that the potential benefits to patients is enormous, widespread accessibility and feasibility also require investigation.

The accessibility issue for post-stroke patients cannot be underestimated. Granted, there are acupuncturists that provide home visits; however, this level of service is often more expensive than acupuncture provided centrally at medical clinics. Stroke patients are often non-ambulant, and the barrier to care involves transportation issues as well.

Perhaps one of the most important times to provide acupuncture to post-stroke patients is immediately following the stroke. The majority of in-patient facilities in the USA have no system in place to allow acupuncturists to provide necessary care. Precious time is wasted and the impact of acupuncture's clinical efficacy is not available to patients at a critical juncture. This is in stark contrast to many facilities in China and Japan wherein acupuncture is integrated into standard stroke patient protocols.

Reference

Zhang L, Zhong Y, Quan SL, Liu YH, Shi XH, Li ZG, Wang JJ. Acupuncture Combined with Auricular Point Sticking Therapy for Post Stroke Depression: A Randomized Controlled Trial [J]. *Chinese Acupuncture and Moxibustion*, 2017, 37 (6): 581-585.