

- [4] Yu Zhishun, the scalp basic and clinical [M]. Beijing: Chinese Medical Science and Technology Press, 1992
- [5] Sun Zhongren, Zhu Luwen, Yu Zhishun, etc.'s head at point cluster needling features introduced and clinical analysis [S] 2011 Chinese Acupuncture Association Annual Meeting :567-570.

Clinical Study on the Intervention Effect of Scalp Clustery Acupuncture on Cognitive Function of Subcortical Arteriosclerotic Encephalopathy

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[Abstract] ObjectiveTo explore the effectiveness of the intervention of scalp clustery acupuncture in treating cognitive function of subcortical arteriosclerotic encephalopathy. **Method** Sixty patients with SAE who met inclusion and exclusion criteria were randomized into atreatment group and a control group, 30 in each group. The treatment group was intervened by scalp clustery acupuncture, and the control group was by Donepezil Hydrochloride Tables. Mini-Mental State Examination (MMSE), Montreal Cognitive Assessment (MoCA), and determination of P₃₀₀ latency period and amplitude were adopted for evaluation. **Result** The total effective rate was 83.3% in the treatment group versus 53.3% in the control group, and the difference was statistically significant ($P<0.01$). After treatment, inner-group comparison of MMSE and MoCA scores and P₃₀₀ latency period and amplitude showed significant improvements (all $P<0.01$); after treatment, the differences between the treatment group and control group were statistically significant in comparing MMSE and MoCA scores, and P₃₀₀ latency period and amplitude ($P<0.05$). **Conclusion**Fontal and Parietal congthornis an effective and feasible approach, which can significantly improve MMSE and MoCA scores, shorten P₃₀₀ latency periodand increase P₃₀₀ amplitude. And it is conducive to the improvement of cognitive function.

[Key words] Acupuncture therapy, Scalp acupuncture, Cognitive function, Cluster needling, Dementia, Vascular

Subcortical arterioscleroticencephalopathy(SAE) ,as a type of vascular dementia, belongs to leukoaraiosis. The disease is mainly due tohypertension, which leads tosmall intracranial atherosclerosis, vascular wall thickening,fatty hyaline degeneration andischemic white matter demyelination. The most characteristicclinicalmanifestation ischronic progressivecognitive impairment. In addition,Pyramidal tract damage is often accompanied^[1]. Modernmedicine indiagnosis of the diseasehas madegreat progress, but in approach mainly adoptssymptomatic treatment, lack of effective approach to improve cognitive function and prevent disease progression. Many studies have reported that Yushi scalp clustery acupuncturehas a unique advantage in treatment of the disease. The author adoptedscalp clustery acupuncture to treat the disease 30 cases and 30 caseswith the drugcompared in the clinical.Reported as follows:

1 Clinical data

1.1 General Information

Sixty patients with SAE who met inclusion and exclusion criteria were randomized into atreatment group and a control group,30 in each group. All cases were from the Second Affiliated Hospital of Heilongjiang University of Traditional Chinese Medicine.Compared two groups ofpatients with general information, the difference was not statistically significant($P>0.05$).

Table 1 Comparison of two groups of patients in general information

Category	n	Gender (n)		Average age ($\bar{x} \pm s$, Years)	MMSE score ($\bar{x} \pm s$, point)
		Male	Female		
Treatment group	30	18	12	61.87±4.40	16.50±3.80
Control group	30	16	14	61.77±4.58	15.73±3.26

1.2 Diagnostic criteria

Reference to the diagnostic criteria proposed by Guo Hongzhi^[2]: ①The elderly with a history of hypertension (Or unstable blood pressure). ②Cognitive impairment (dementia) is a necessary condition. ③Most are latent onset and slow progress. Typical clinical manifestations are hypertension, stroke and chronic progressive dementia. ④Must have a cumulative neurological signs, such as movement or sensory disturbances or only tendon hyperreflexia. There may or may not be parkinsonism, pseudobulbar palsy, individual patients with incontinence or seizures in the middle and later periods. ⑤Accord with imaging standards.

1.3 Inclusion criteria

①Accord with diagnostic standard. ② Male or female which between the age of 50 to 70 years old. ③Accord with MMSE score which is classified by level of education, illiteracy MMSE for 9-17 points, primary school MMSE for 9-17 points, and secondary school or above for 10-20 points. ④Meet Hachinski Ischemic Score ≥ 7 points. ⑤Signed the informed consent form.

1.4 Exclusion criteria

①Those with mental disorder (e.g., depression), agnosia or aphasia. ②Low thyroid function, serum vitamin B12 and folic acid deficiency. ③Acupuncture points have scar, infection, or lack of skull. ④Those who are in active peptic ulcer, active epilepsy and asthma. ⑤Take drug to improve cognitive function in two weeks. ⑥Those who have known are allergic to cholinergic drugs. ⑦Those with movement disturbances, parkinsonism or pseudobulbar palsy. ⑧Those with serious organ disease of heart, liver or kidney, which affect efficacy evaluation.

1.5 Weed out criteria

①Going against the doctor's advice for treatment. ②Existing illness deteriorates in the process of treatment.

1.6 Fall off criteria

①Those who think efficacy is poor refuse to continue treatment. ②Can't continue the treatment because of serious adverse events or complications occurred in the process. ③Quit without any reasons.

2 Treatment method

All sixty patients with underlying diseases (such as hypertension, diabetes, abnormal lipid metabolism, etc.) were given the conventional treatment.

2.1 The treatment group

Frontal and parietal areas of Yu's scalp acupuncture were adopted for treatment. Patients took sitting or supine position. Healer used long retaining needle discontinuous line stitch, namely using 0.35 mm x 40 mm acupuncture needle. After routine disinfection, frontal area was pinpricked five needles [from Shenting (DU 24) to Xinghui (DU 22) and to the left and right's 1 and 2 inch parallel lines], parietal area was five needles [from Qingding (DU 21) to Baihui (DU 20) and to the left and right's 1 and 2 inch parallel lines]. According to the above points, healer pinpricked from front to back. The needle bodies were 15° with the skin, and then along Subgaleal with 0.8 ~ 1.0 inch.

Twisting after acupuncture, the twirling frequency was 200 times/min, 1 minutes one time, and retaining needle for 6 hours , during the retaining process, twisting the needles for three times. Treatment for 1 times per day, 6 times per week and 6 weeks for a duration.

2.2 The control group

The oral drug Donepezil Hydrochloride Tablets[Approved by Eisai (China) Pharmaceutical Co., Ltd.], 5 mg each time, after 4 weeks increased to 10mg, 1 time per night,6 weeks for a duration.

3 Treatment effect

3.1 Observation index

Mini-mental state examination(MMSE),Montreal Cognitive Assessment (MoCA), and determination of P₃₀₀ latency period and amplitude were adopted for evaluation.

3.2 Therapeutic effect criterion

According to MMSE score, efficacy index= $[(\text{Score after treatment} - \text{Score before treatment}) \div \text{Score after treatment}] \times 100\%$.

Excellent: Efficacy index $\geq 20\%$

Effective: $12\% < \text{Efficacy index} < 19\%$

Invalid: Efficacy index $< 12\%$

3.3 Statistical method

The statistics were analyzed by SPSS17.0 software. Categorical data used chi-square test. Measurement data was expressed by (mean \pm standard deviation). Comparison between groups used independent sample t test. Inner-group comparison used paired sample t test. $P < 0.05$ showed statistically significant difference.

3.4 Treatment outcome

3.4.1 Comparison of two groups of patients in clinical efficacy

Seen from Table 2. The total effective rate was 83.3% in the treatment group versus 53.3% in the control group, and the difference was statistically significant ($P < 0.01$). Description of the treatment group is better than the control group in clinical efficacy.

Table 2 Comparison of two groups of patients in clinical efficacy (n)

Category	n	Excellent	Effective	Invalid	Total effective rate /%
Treatment group	30	6	19	5	83.3 ¹⁾
Control group	30	2	14	14	53.3

Note: Compared with control group ¹⁾ $P < 0.01$

3.4.2 Comparison of two groups of patients in MMSE and MoCA scores

Seen from Table 3. Compared two groups of patients with MMSE and MoCA scores before treatment, the difference were not statistically significant (both $P > 0.05$). After treatment, inner-group comparison of MMSE and MoCA scores showed significant improvements (all $P < 0.01$). After treatment, the differences between the treatment group and control group were statistically significant in comparing MMSE and MoCA scores, description of the treatment group is better than the control group in the improvement of MMSE and MoCA scores.

Table 3 Comparison of two groups of patients in MMSE and MoCA scores ($\bar{x} \pm s$, point)

Category	n	Time	MMSE	MoCA
Treatment group	30	Before treatment	16.50 \pm 3.80	15.37 \pm 3.18
		After treatment	19.63 \pm 4.91 ¹⁾²⁾	18.23 \pm 4.31 ¹⁾²⁾
Control group	30	Before treatment	15.73 \pm 3.26	14.90 \pm 2.72
		After treatment	17.37 \pm 3.72 ¹⁾	16.30 \pm 2.96 ¹⁾

Note: Compared with the same group before treatment ¹⁾ $P < 0.01$. Compared with control group ²⁾ $P < 0.05$

3.4.3 Comparison of two groups of patients in P₃₀₀ latency period and amplitude

Seen from Table 4. Compared two groups of patients with P₃₀₀ latency period and amplitude scores before treatment, the difference were not statistically significant (both $P > 0.05$). After treatment, inner-group comparison of P₃₀₀ latency period and amplitude showed significant

improvements (all $P < 0.01$). After treatment, the differences between the treatment group and control group were statistically significant in comparing P_{300} latency period and amplitude, description of the treatment group is better than the control group in the shortening of P_{300} latency period and the increase of P_{300} amplitude.

Table 4 Comparison of two groups of patients in P_{300} latency period and amplitude ($\bar{x} \pm s$)

Category	<i>n</i>	Time	Latency period (ms)	Amplitude (μV)
Treatment group	30	Before treatment	456.67 \pm 20.40	1.44 \pm 0.26
		After treatment	437.67 \pm 28.97 ¹⁾²⁾	1.75 \pm 0.51 ¹⁾²⁾
Control group	30	Before treatment	460.67 \pm 18.18	1.38 \pm 0.20
		After treatment	451.00 \pm 19.36 ¹⁾	1.50 \pm 0.23 ¹⁾

Note: Compared with the same group before treatment ¹⁾ $P < 0.01$. Compared with control group

²⁾ $P < 0.05$

3.5 Adverse reactions and cases of loss

One case appeared nausea and mild epigastric pain in the control group during the treatment, the symptom disappeared after taking gastric mucosa protectant. One case suffered from insomnia in the control group, the symptoms disappeared after taking morning medication instead. The treatment group had no adverse effect in the whole course of the treatment.

No one fall off due to poor compliance during the treatment.

4 Discussion

The clinical presentations of subcortical arteriosclerotic encephalopathy (SAE) could be mainly manifested by dementia, it belongs to "dementia" or "forgetfulness" in Traditional Chinese Medicine. Disease located in the brain. The basic pathogenesis is lack of the brain. The brain is clear yang organ, the center of yang, full of blood and qi, so the focus of treatment should be the brain, using the scalp needling. Acupuncture has been frequently used in treating this disease^[3-4].

According to the acupoint property of nearby-action. Plus the view 'acupuncture field' of Dr. Yu. The research chose the frontal and parietal areas^[5]. The frontal area, as one of intelligence representative district, which is on the anterior part of the frontal lobe is related to the mental activity. While the parietal area which is on the precentral gyrus, postcentral gyrus, paracentral lobule, inferior parietal lobule, and part of superior parietal lobule is to space location. Besides, Baihui (DU20) and Sishencong (EX-HN1) are located in parietal area, and they are all conducive to the improvement of cognitive function^[6-8].

The results show that scalp clustery acupuncture and the oral drug 'Donepezil Hydrochloride Tablets' are both effective treatments for the cognitive impairment from SAE, and the former is better than the latter in clinical efficacy. However, the further study about the onset time, the optimal efficacy, and the duration will be needed in the future.

Reference

- [1] Li Jianzhang. Neurologist Manual [M]. BeiJing: People's Health Publishing House, 2010: 213.
- [2] Guo Hongzhi, Qu Chuanqiang. Binswanger's disease identification and diagnostic criteria [J]. Chinese Journal of Clinical Rehabilitation, 2004, 8(4): 778-779.
- [3] Zhu CF, Yang J, Fei AH, *et al.* Influence of acupuncture-moxibustion treatment on cognition disorder [J]. J Acupunct Tuina Sci, 2012, 10(4): 218-222.
- [4] Lai XS, Huang Y. Comparative study on the effect of Baihui (GV 20) Shuigou (GV 26) and Shenmen (HT 7) on cognition of patients with vascular dementia [J]. J Acupunct Tuina Sci, 2005, 3(5): 20-23.
- [5] Wang Wei, Zhou Guobin, Yu Zhishun. Yu Zhishun chief physician at the scalp treatment experience [J]. Chinese Medicine Modern Distance Education, 2003, 1(6): 28-31.
- [6] Qu Shanshan, Lu Yangjia, Huang Yong, *et al.* The mechanism about acupuncture treatment to vascular dementia [J]. Shanghai Journal of Acupuncture, 2010, 29(12):

805-808.

- [7]Rong Jun. Scalp acupuncture combined with functional training on the influence of cognitive impairment from vascular dementia [J]. Shanghai Journal of Acupuncture,2013,32(3):173-174.
- [8]Sun Yuanzheng,Jia Shuya. Clinical observation on Yushi scalp clustery acupuncture for treatment of post stroke depression[J]. Shanghai Journal of Acupuncture,2012,31(8):564-565.

The clinical study of post-stroke depression of heart and spleen deficiency treated with music electro-acupuncture

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Abstract. Objective: To observe the therapeutic effects of post stroke depression of heart-spleen deficiency with the method of music electro-acupuncture in order to find a safe and effective treatment. **Methods:** 90 patients randomly divided into acupuncture group treated with twist reinforcing method, electro-acupuncture group (EA group) treated with electro-acupuncture method, music electro-acupuncture group (music EA group) treated with electro-acupuncture method and listen to antidepressant music. Using HAMDMESSSWHOQOL-BREF to estimate the effect of three methods before and after treatment. **Results:** 1.Compared with acupuncture group and EA group, music EA group is better in improving depressive symptoms ($P<0.01$). 2. Compared with acupuncture group and EA group, music EA group is better in improving nerve function ($P<0.01$). 3.Compared with acupuncture group and EA group, music EA group is better in G1G4physical fieldpsychological field ($P<0.01$). 4. Total efficiency of HAMD and MESSS of music EA group is better than the other two groups ($P<0.05$). **Conclusions:** 1.The music EA therapy is superior to the other two groups in the fields of improving the depressive symptoms, restoring from the deficit neural function and improving the quality of the patients' lives.2.The music EA therapy can comprehensively ameliorate the Depressive symptoms of the stroke depressive patients by improving the patient's physical and psychological condition.

Key words: Post stroke depression (PSD), Music electro-acupuncture, Heart-spleen deficiency,Quality of life

Introduction:

Depression after stroke (PSD) often appears cardinal syndroms such as low spirite, flagging interestsleep disorder, which not only influence mood of patients, but also obstruct to rehabilitation of neurological function impairment. Because of side reactions, no quick results in early treatment and palindromia after drug withdrawing, the application of Western medicine is currently restricted. In this study, we observe the effect of 90 patients of PSD through three intervene therapies such as the acupuncture, electro-acupuncture, music electro-acupuncture to explore a safe and effective new approach .

Materials and methods:

1. General information

90 observed cases all came from the Second Affiliated Hospital of Heilongjiang University of Chinese Medicine from Jan, 2012 to Jun, 2012. These observed cases were randomly divided into acupuncture group, EA group and music EA group by PEMS3.1 software (n=30), including 51 male