

Analysis of Traditional Chinese Medicine Acupuncture for Patients with Cognitive Disorder in Vascular Dementia

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Abstract: In this study, 66 patients with vascular dementia cognitive impairment who were admitted from January 2022 to January 2023 were randomly divided into the control group and the observation group. The observation group was treated with traditional Chinese medicine acupuncture and moxibustion (n=33), and the control group was treated with conventional treatment. The observation of the treatment effect shows that the treatment of traditional Chinese medicine acupuncture and moxibustion can improve the patient's FMA score, neurological deficit NIHSS score, mental state, and help patients recover. The specific research is as follows.

Keywords: Cognitive Disorder in Vascular Dementia; Acupuncture; Clinical Effects

1. Introduction

Vascular dementia (VD) mainly refers to the cognitive dysfunction syndrome caused by patients suffering from cerebrovascular disease. It is one of the common diseases leading to dementia. It has a high incidence rate in China, second only to Alzheimer's disease [1]. In recent years, patients with vascular dementia are common in middle-aged and elderly people, which are manifested as uncoordinated physical activities, non-standard pronunciation, aphasia, memory loss, and cognitive disorder. In traditional Chinese medicine, it is believed that the syndrome of vascular dementia is complex, and it is associated with multiple symptoms and is closely related to kidneys and other organs. In the differentiation of symptoms in traditional Chinese medicine, it is believed that the disease is a syndrome of deficiency and excess, and the main causes of cognitive disorder in patients are

related to kidney deficiency, qi deficiency, and blood stasis [2]. In clinical practice, the treatment of cognitive disorder in vascular dementia mainly adopts conventional Western medicine and traditional Chinese medicine. In order to better understand the treatment methods of traditional Chinese medicine, this paper mainly analyzes the clinical effect of traditional Chinese medicine acupuncture on patients with cognitive disorder in vascular dementia.

2. Information and Methods

2.1 General Information

66 patients who received vascular dementia cognitive disorder treatment in our hospital from January 2022 to January 2023 were randomly selected for comparative study by means of comparative retrospective analysis. They were randomly numbered from No. 1 to No. 66. The single number were recorded as the observation group treated with traditional Chinese medicine acupuncture (n=33). There were 17 male patients and 16 female patients in this group with an average age of (60.65 ± 8.56) years old. And the even number were recorded as the control group with conventional therapy, and there were 18 male patients and 15 female patients. The average age of the patients was (60.77 ± 8.28) years old. They are comparable (p>0.05) [3].

Inclusion criteria: (1) All patients were diagnosed with cognitive impairment in vascular dementia and received treatment at our hospital. (2) The patient's family members and their guardians were aware of the content of this study and signed an informed consent form. (3) The relevant ethics research committee approved the discussion of this study.

Exclusion criteria: (1) Patients suffering from other major diseases. (2) Patients with severe organ failure. (3) Incomplete information. (4) Individuals with mental disorders and lack of cooperation.

2.2 Methods

The control group adopted a conventional treatment mode with Western medicine as the main treatment. During the treatment process, the drug XinLuoShu (Alias: Ginkgo Leaf Dispersible Tablets; Manufacturer: Hunan Warner Pharmaceutical Co., Ltd.; Product number: 14002865614; Approval number / Production license number: Guoyao Zhunzi Z20050569; Specification: 30 mg/tablet) is orally administered once a day with a dosage of 30 mg each time.

The observation group adopted the acupuncture of traditional Chinese medicine. Before acupuncture and moxibustion, the drug was administered according to the medication method of the control group. And the patients were given the acupuncture and moxibustion treatment of traditional Chinese medicine. During the application of acupuncture, Baihui point, Neiguan point, Shenque point, Fengchi point, Sanyinjiao point, Zusanli point, and Shenmen point were selected. Different acupoint techniques are different when applying needles. When applying needles to Baihui acupoint, the technique of leveling, supplementing, and reducing is used. After obtaining the desired sensation, the needle is twisted at a speed of 200 times/min for 1 minute with a needle retention time of 30 minutes. Acupuncture is performed once every 10 minutes. When applying needles to Shenque acupoint, ginger separated moxibustion is used. Routine aseptic technique was conducted when applying acupuncture to other acupoints with 1.5~2 inch filiform needles, and the patient's skin were directly punctured at a distance of 1-1.5 inches. And then the twisting, rotating, lifting and interpolation method were applied for 1 minute, retaining the needle for 30 minutes after getting the desired sensation. Acupuncture was administered 6 times a week with once a day, and a new cycle began after a

day's rest. The treatment lasts for a total of 12 weeks.

2.3 Observation Indicators

The FMA score, NIHSS score, and improvement in mental state of patients in two groups were compared. (1) The total score of FMA was 100 points, and the higher the score, the better the score. It mainly evaluated the functional activities of the patient's limbs. (2) The NIHSS score for neurological deficits was evaluated by the NIHSS scale, with mild cases having a NIHSS score of ≤ 4 points and severe cases having a NIHSS score of ≥ 21 points [4]. (3) The improvement of mental state was evaluated by percentages, which were divided into significance, fine, and invalidity. Significance is mainly manifested in the patient's dementia symptoms being significantly alleviated and their cognitive ability being significantly improved. Fine is mainly manifested in the patient's dementia symptoms being alleviated and their cognitive ability being improved. Invalidity indicates that the patient's symptoms being not improved or even worsened. Effective rate=(significance+fine)/total number of cases * 100%.

2.4 Statistical methods

The data was included in the SPSS 19.0 statistical software for analysis. The improvement of mental state was compared by χ^2 expressed as a rate (%). The FMA score and NIHSS score were compared by t-test and expressed as ($x \pm s$). If $P < 0.05$, it indicated that there was significant and statistically difference between the two groups.

3. Results

3.1 Comparison of Fma Scores Between Two Groups of Patients

In this study, the FMA score of the observation group after treatment was (76.23 ± 3.43) points, which was higher than that of the control group (60.33 ± 2.18) points. It has statistical significance ($P < 0.05$). The specific data is shown in Table 1.

Table 1. Comparison of FMA Scores between Two Groups of Patients ($x \pm s$)

Group	Case	Before treatment	After treatment
Observation group	33	41.89 \pm 2.11	60.33 \pm 2.18
Control group	33	41.65 \pm 2.09	76.23 \pm 3.43
T	-	2.563	10.521
p	-	0.889	0.001

3.2 Comparison of Nihss Scores for Neurological Deficits Between Two Groups Of Patients

In this study, the NIHSS score of the observation group after treatment was (2.29 ± 0.67) points,

while that of the control group after treatment was (6.78 ± 0.67) points. The NIHSS score of the observation group was better than that of the control group ($P < 0.05$). The specific data is shown in Table 2.

Table 2. Comparison of NIHSS Scores for Neurological Deficits between Two Groups of Patients ($\pm s$)

Group	Case	Before treatment	After treatment
Observation group	33	12.34 \pm 2.76	2.29 \pm 0.67
Control group	33	12.98 \pm 2.48	6.78 \pm 0.67
t	-	2.545	10.774
p	-	0.824	0.001

3.3 Comparison of the Improvement of Mental State Between Two Groups of Patients

In this study, the effective rate of improving mental state in the observation group was

90.91% (30/33), while that in the control group was 66.67% (22/33). It can be seen that the improvement of mental state in the observation group was better than that in the control group ($P < 0.05$). The specific data is shown in Table 3.

Table 3. Comparison of Improvement of Mental State between Two Groups of Patients (%)

Group	Case	Significance	Fine	Invalidity	Total effective rate
Observation group	33	16	14	3	90.91% (30)
Control group	33	7	15	11	66.67% (22)
χ^2	-	10.293	2.341	10.345	10.452
p	-	0.001	0.829	0.001	0.001

4. Discussion

Vascular dementia is mainly caused by a series of factors affecting the patient's cerebral blood vessels, leading to a decrease in cerebral blood flow, ischemic changes in the brain parenchyma, and the loss of specific cortical nerve conduction function. According to the epidemiological report, when patients suffer from hypertension, hypotension, hyperlipidemia, diabetes and various metabolic syndromes, they may have the possibility to cause vascular dementia symptoms. Especially when patients suffer from atherosclerosis and hyperhomocysteinemia, they are more likely to cause vascular dementia symptoms, resulting in cognitive disorder [5]. In clinical treatment, it has been found that the ratio of cerebral blood flow to cerebral oxygen metabolism rate in patients with cognitive disorder in vascular dementia is directly proportional to the clinical symptoms of the patient. When the patient experiences ischemia, hypoxia, and other phenomena in the cerebral blood vessels, their thinking and emotions will be affected, causing cognitive disorder and ultimately evolving into dementia [6].

Through the treatment of vascular dementia patients with traditional Chinese medicine

acupuncture, the dementia symptoms of patients can be effectively controlled and the patients' condition can be significantly improved. In the process of traditional Chinese medicine acupuncture, there are many treatments for patients with vascular dementia, mainly including acupuncture, scalp acupuncture, electroacupuncture, etc. Acupuncture mainly involves Baihui point, Naohu point, Benshen point, Fengchi point, Zusanli point, etc. Scalp acupuncture mainly stimulates the stimulating area of the head to effectively treat brain derived diseases. Electroacupuncture mainly takes the patient's acupoints such as Four Shencong point, Baihui point, Fengchi point, Renzhong point, and Zusanli point to perform electrical stimulation on the patient. Acupuncture can effectively improve the cognitive disorder of patients with vascular dementia. Acupuncture at Fengchi point during the treatment process can improve the patient's blood flow velocity, alleviate the soft tissue state of the patient's neck, reduce tissue pressure on the patient's acupoints, improve the blood and oxygen supply to the brain, improve the patient's physical and life activity abilities, and enhance the patient's cognitive ability. In this study, the patients' FMA score, NIHSS score and mental state

improvement were significantly improved after acupuncture treatment ^[7].

5. Conclusion

It is more effective to treat vascular dementia patients with cognitive impairment by traditional Chinese medicine acupuncture and moxibustion on the basis of conventional treatment in the treatment process, which can effectively improve patients' cognitive situation, enhance patients' mental state and improve patients' quality of life. This treatment method is worth promoting and using in clinical medicine and traditional Chinese medicine.

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