

Study on the Effect of Auricular Point Pressing with Vaccaria Seeds Combined with Traditional Chinese Medicine Emotional Intervention on Patients with Migraine

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Abstract: *Objective:* To analyze the clinical efficacy of auricular point pressing with vaccaria seeds combined with traditional Chinese medicine emotional intervention applied to migraine patients, and observe the influence of this combined intervention program on patients' headache symptoms, psychological status, sleep quality, and quality of life, so as to provide a reliable basis for clinical integrated traditional Chinese and Western medicine nursing intervention of migraine. *Methods:* A total of 86 migraine patients admitted to our hospital from January 2025 to December 2025 were selected as research objects, and the patients were divided into two groups by random number table method, with 43 cases in each group. *Results:* Before intervention, there were no statistically significant differences in VAS score, headache attack frequency, SAS, SDS, PSQI, and MSQ scores between the two groups ($p > 0.05$). After 8 weeks of intervention, all indicators of the two groups were significantly improved compared with those before intervention; the VAS score, headache attack frequency, SAS, SDS and PSQI scores of the observation group were significantly lower than those of the control group, while the MSQ score was significantly higher than that of the control group, and all differences were statistically significant ($p < 0.05$). The total clinical effective rate of the observation group was 95.35%, which was obviously higher than 81.40% of the control group, with statistical significance ($p < 0.05$). *Conclusion:* Auricular point pressing with vaccaria seeds combined with traditional Chinese medicine emotional intervention can effectively relieve headache symptoms of migraine patients and reduce the frequency of headache attacks, improve patients' negative emotions such as anxiety and depression, as well as enhance their sleep quality and quality of life. It has an obvious clinical intervention effect and good safety, and can be popularized and applied in clinical nursing of migraine.

Keywords: Migraine; Auricular point pressing with vaccaria seeds; Traditional Chinese medicine emotional intervention; Headache symptoms; Psychological status; Sleep quality

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1. Introduction

Migraine is a common chronic neurological disorder that significantly affects patients' quality of life. Current pharmacological treatments often have limited efficacy and high recurrence rates, and psychological factors such as anxiety and depression are known to play an important role in its onset and exacerbation. In traditional Chinese medicine, migraine is attributed to liver Qi stagnation and meridian obstruction, and external therapies like auricular point pressing have been widely used to relieve pain. However, studies on the combined use of auricular point pressing and TCM emotional intervention remain limited. This study aims to evaluate the clinical efficacy of this combined approach on headache symptoms, psychological status, sleep quality, and quality of life in migraine patients.

2. Materials and methods

2.1. General data

A total of 86 migraine patients admitted to the Department of Neurology of our hospital from January 2025 to December 2025 were selected as research objects. The patients were divided into a control group and an observation group by random number table method, with 43 cases in each group. Among the control group, there were 19 males and 24 females; aged 22 to 58 years old, with an average age of (39.65 ± 7.28) years; the disease course ranged from 1 to 12 years, with an average of (6.32 ± 2.15) years; in terms of headache severity, 15 cases were mild, 22 cases moderate, and 6 cases severe. In the observation group, there were 18 males and 25 females; aged 21 to 59 years old, with an average age of (40.12 ± 7.35) years; the disease course ranged from 1 to 13 years, with an average of (6.58 ± 2.23) years; in terms of headache severity, 14 cases were mild, 23 cases moderate, and 6 cases severe. The comparison of general baseline data such as gender, age, disease course, and headache severity between the two groups showed no statistically significant difference ($p > 0.05$), indicating comparability between groups. This study was carried out with the approval of the hospital Medical Ethics Committee, and all patients signed informed consent forms after being informed ^[1].

2.2. Intervention methods

2.2.1. Control group

(1) Routine drug treatment and basic nursing intervention were provided.

(2) Drug treatment

Oral Ibuprofen Sustained-Release Capsules during acute headache attacks, 0.3 g each time, twice a day, 3 consecutive days as a course of treatment; no regular medication was required during the intermittent period.

(3) Basic nursing

Carry out regular health education, inform patients of the inducing factors of migraine, daily protection measures, work and rest rules and dietary taboos, guide patients to keep regular schedules and avoid staying up late and overwork, and prohibit strong tea, coffee and spicy irritating food; conduct regular disease monitoring, record the time and frequency of patients' headache attacks as well as their severity, and provide basic psychological comfort to relieve patients' discomfort emotions. The whole intervention lasted for 8 consecutive weeks ^[2].

2.2.2. Observation group

On the basis of routine treatment and nursing, auricular point pressing with vaccaria seeds and traditional Chinese medicine emotional intervention were carried out for 8 weeks, and the specific scheme was as follows:

Auricular Point Pressing Intervention: Medical staff selected acupoints based on the TCM pathogenesis of migraine and clinical diagnosis and treatment experience. The main acupoints included Shenmen, Subcortex, Occiput and Temple, and Liver; matching acupoints were added according to patients' symptoms: Heart acupoint for patients accompanied by insomnia, Stomach acupoint for patients accompanied by nausea and vomiting, Gallbladder acupoint for patients accompanied by irritability. Before formal operation, medical staff cleaned the skin of patients' bilateral auricles and carried out routine disinfection, then pasted adhesive tapes attached with Vaccaria seeds accurately on the corresponding acupoints. After that, medical staff guided patients to conduct acupoint pressing intervention. Each acupoint was pressed for 60 seconds, with the pressing strength reaching a tolerable level of soreness, numbness, and slight pain at the acupoints. The operation was carried out three times a day (morning, noon, and evening), and the auricular plasters were replaced every 3 days, with bilateral auricles used alternately. During the intervention, patients were instructed not to wash or rub the auricles violently, and to stop the operation immediately and receive symptomatic treatment once skin itching, redness, and other allergic reactions occurred ^[3].

Traditional Chinese Medicine Emotional Intervention: Based on the TCM theory of "seven emotions causing diseases", medical staff carried out personalized intervention according to patients' emotional status. Migraine is mostly related to liver Qi stagnation and emotional disorder; excessive emotion, depression, and anxiety can all trigger or aggravate pain. The specific intervention measures are as follows:

(1) Emotional counseling

Medical staff communicated with patients for 15 to 20 minutes every day, patiently listened to patients' complaints, figured out the causes of patients' emotional fluctuations, provided targeted counseling for different emotions, explained the relationship between emotion and headache, and encouraged patients to actively adjust their emotions and maintain a pleasant mood to soothe liver Qi.

(2) Musical emotional therapy

In accordance with the TCM theory of five tones corresponding to five Zang-organs, medical staff played soothing traditional Chinese music of Yu mode and Jue mode every morning for 30 minutes to soothe liver Qi, calm the heart, and relieve patients' tension and anxiety.

(3) Relaxation intervention

Medical staff guided patients to complete 15-minute mindfulness breathing training and progressive muscle relaxation training to help patients relax their whole body, relieve physical and mental tension, reduce vasospasm caused by emotional fluctuations, and lower the incidence of headache attacks.

(4) Life emotional regulation

Medical staff guided patients to maintain a peaceful mind and avoid drastic emotional fluctuations; patients could adjust their emotions through walking, meditation, mild Tai Chi, and other soothing exercises to prevent violent mood swings ^[4].

3. Results

3.1. Comparison of headache-related indicators between the two groups

Before intervention, there were no statistically significant differences in VAS score and weekly headache attack frequency between the two groups ($p > 0.05$). After intervention, the VAS score and weekly headache attack frequency of both groups were significantly lower than those before intervention, and the indicators of the observation group were obviously lower than those of the control group, with statistically significant differences ($p < 0.05$). See the table below. See **Table 1**.

Table 1. Comparison of headache-related indicators between the two groups

Group	Number of cases	VAS score (Points)		Weekly attack frequency (Times)	
		Pre-intervention	Post-intervention	Pre-intervention	Post-intervention
Control group	43	6.85 ± 1.24	4.12 ± 0.96	4.26 ± 1.13	2.35 ± 0.82
Observation group	43	6.92 ± 1.18	2.05 ± 0.73	4.31 ± 1.09	1.12 ± 0.56

3.2. Comparison of psychological status scores between the two groups

Before intervention, there was no obvious difference in SAS and SDS scores between the two groups ($p > 0.05$). After intervention, the anxiety and depression scores of both groups decreased, and the scores of the observation group were lower than those of the control group, with statistically significant differences ($p < 0.05$). See the table below. See **Table 2**.

Table 2. Comparison of psychological status scores between the two groups

Group	Number of cases	SAS score (Points)		SDS score (Points)	
		Pre-intervention	Post-intervention	Pre-intervention	Post-intervention
Control group	43	58.62 ± 6.35	51.24 ± 5.87	59.13 ± 6.28	52.36 ± 5.92
Observation group	43	58.94 ± 6.21	42.36 ± 4.52	59.47 ± 6.15	43.15 ± 4.38

3.3. Comparison of sleep quality and quality of life scores between the two groups

Before intervention, there were no statistically significant differences in PSQI and MSQ scores between the two groups ($p > 0.05$). After intervention, the PSQI scores of both groups decreased significantly while MSQ scores increased significantly, and the improvement degree of the observation group was better than that of the control group, with statistically significant differences ($p < 0.05$). See the table below. See **Table 3**.

Table 3. Comparison of sleep quality and quality of life scores between the two groups

Group	Number of cases	PSQI score (Points)		MSQ score (Points)	
		Pre-intervention	Post-intervention	Pre-intervention	Post-intervention
Control group	43	14.26 ± 2.35	10.15 ± 2.08	52.36 ± 8.65	63.58 ± 9.12
Observation group	43	14.31 ± 2.29	6.82 ± 1.53	51.98 ± 8.72	78.65 ± 10.24

3.4. Comparison of clinical efficacy between the two groups

The total effective rate of intervention in the observation group was 95.35%, which was significantly higher than 81.40% of the control group, with statistical significance ($p < 0.05$). See the table below. See **Table 4**.

Table 4. Comparison of clinical efficacy between the two groups

Group	Number of cases	Cured	Markedly effective	Effective	Ineffective	Total effective rate
Control group	43	8 (18.60)	15 (34.88)	12 (27.91)	8 (18.60)	35 (81.40)
Observation group	43	14 (32.56)	18 (41.86)	9 (20.93)	2 (4.65)	41 (95.35)

4. Discussion

Migraine is a common chronic vascular neurological disease in the Department of Neurology. It is mainly manifested as unilateral pulsatile headache with recurrent attacks and difficult recovery, often accompanied by nausea, insomnia, irritability, and other symptoms, which seriously interfere with patients' daily life, work, as well as physical and mental health. Modern medical studies have proved that the occurrence of migraine is related to vasomotor dysfunction, abnormal neurotransmitters, and psychological factors. Long-term anxiety, depression, and mood fluctuations are all risk factors inducing and aggravating migraine. At present, clinical routine methods include symptomatic pain relief by drugs and basic nursing intervention, which can relieve patients' pain symptoms in the short term, but fail to solve fundamental problems such as emotional imbalance and neurological disorder, leading to a high long-term recurrence rate and poor overall intervention effect^[5].

In traditional Chinese medicine, migraine falls into the categories of head wind and unilateral head wind, whose main pathogenesis includes emotional disorder, liver Qi stagnation, Qi and blood stasis as well as meridian obstruction; pain occurs when meridians are unobstructed. The liver governs free flow of Qi and regulates emotion and the circulation of Qi and blood all over the body. Excessive thinking and persistent unhappiness of patients can lead to inhibited liver Qi, stagnated Qi movement, unsmooth blood circulation, and blocked meridians, which disturb the upper clear orifices and cause headache. Therefore, the core principle of traditional Chinese medicine in treating migraine is to soothe liver Qi, unblock collaterals to relieve pain and regulate emotion, so as to treat both symptoms and root causes. Auricular point pressing with vaccaria seeds is a characteristic external therapy of TCM. The auricle is densely covered with meridians, which are closely connected with Zang-fu organs, meridians, as well as Qi and blood of the whole body. Stimulating auricular acupoints can regulate the functions of corresponding Zang-fu organs, unblock meridians, harmonize Qi and blood, and calm the nerves. The main acupoints selected include Shenmen, Subcortex, Occiput, Temple and Liver. The Liver acupoint can soothe liver Qi and relieve stagnation to dredge collaterals, regulating the pathogenesis of liver Qi stagnation from the source; Temple and Occiput are special acupoints for headache, which can directly dredge head meridians and relieve local Qi and blood stasis to improve headache symptoms rapidly; Shenmen and Subcortex can calm the mind and regulate nerve functions, alleviating patients' irritability and insomnia and reducing headache induced by nerve disorder. The sticking and pressing of Vaccaria seeds is easy to operate with mild stimulation, which can achieve continuous acupoint stimulation and exert good effects on reducing recurrent headache attacks^[6].

Traditional Chinese medicine emotional intervention is based on the holistic concept of TCM and conforms to the basic pathogenesis of "emotions causing migraine". Combined with the external therapy of auricular point pressing, it forms a treatment system integrating internal and external therapies to treat both symptoms and root causes. Medical staff adopt personalized emotional counseling for soothing liver Qi, five-tone music therapy, and relaxation training to regulate patients' conditions, soothe liver stagnation, unblock

Qi movement, tonify the spleen, and nourish the liver to consolidate the root. Emotional counseling can well relieve patients' negative emotions such as anxiety and depression and correct unhealthy psychological states. TCM five-tone therapy adopts Jue mode and Yu mode music to soothe liver stagnation and calm the heart, regulating Qi movement of Zang-fu organs. Mindfulness breathing and muscle relaxation training can relieve physical and mental tension, improve the excited state of sympathetic nerves of the body, and correct vasomotor dysfunction to reduce inducing factors of headache. The combined use of the two intervention methods can unblock meridians and relieve pain externally to treat symptoms, as well as regulate emotions and unblock Qi internally to treat root causes, effectively overcoming the defect that simple drug therapy only relieves symptoms instead of curing root causes ^[7].

It can be seen from the research results that after intervention, the VAS score and attack frequency of headache in the observation group were lower than those in the control group, indicating that auricular point pressing combined with TCM emotional intervention can effectively improve headache symptoms of migraine patients and reduce attack frequency with better long-term control effect. Meanwhile, the SAS and SDS scores of the observation group were significantly lower than those of the control group, which proved that the combined intervention can improve patients' negative emotions and correct emotional imbalance, breaking the vicious cycle of abnormal emotion → headache attack → aggravated emotion. Recurrent migraine easily causes sleep disturbance and poor sleep quality, while insufficient sleep will in turn aggravate headache, forming a vicious cycle. In this study, the PSQI score of the observation group decreased significantly, and sleep quality was improved, superior to the control group. This is attributed to the sedative effect of auricular point pressing and the soothing effect of emotional intervention; dual intervention can regulate patients' nerve functions and improve sleep status to cut off the vicious cycle. The MSQ score results show that the combined intervention can significantly improve patients' daily life quality as well as physical and mental conditions and daily living ability ^[8,9].

In terms of clinical efficacy, the total effective rate of the observation group was significantly higher than that of the control group, which demonstrated the obvious advantages of the integrated Chinese and Western intervention scheme. Conventional drugs can only relieve pain in the short term and fail to regulate patients' Zang-fu functions and emotional states, with a high recurrence rate. Auricular point pressing combined with TCM emotional intervention is a non-invasive, safe, and sustainable scheme without adverse drug reactions, which can be used for long-term intervention to realize simultaneous treatment of symptoms and root causes, improve clinical efficacy, and reduce recurrence risks ^[10]. In addition, this intervention scheme is easy to operate, low in cost, and highly accepted by patients, suitable for long-term clinical application. This study has deficiencies such as small sample size, short intervention cycle, and lack of follow-up on long-term recurrence rate. Subsequent research can expand the sample size and extend the intervention and follow-up time to verify the long-term clinical effect of the combined intervention scheme.

5. Conclusion

The application of auricular point pressing with vaccaria seeds combined with TCM emotional intervention in clinical nursing of migraine patients can effectively relieve patients' headache symptoms, reduce the frequency of headache attacks, significantly alleviate patients' anxiety and depression, improve sleep quality, and promote patients' quality of daily life. It has a remarkable clinical intervention effect and high safety

without adverse reactions. This scheme conforms to the TCM concept of holistic treatment and simultaneous regulation of symptoms and root causes, which can effectively make up for the deficiencies of conventional drugs and basic nursing with good long-term prognosis. It is simple and feasible to operate, worthy of popularization and application in the Department of Neurology and Department of Traditional Chinese Medicine, and provides a high-quality scheme for integrated Chinese and Western intervention of migraine.

Disclosure statement

The authors declare no conflict of interest.

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