

Current Status of Research on the Treatment of Insomnia with Acupuncture

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Abstract: *Insomnia is a non-organic sleep disorder that currently affects the quality of life of people around the globe, and has received widespread attention at home and abroad. Current treatments such as psychotherapy, medication, and physical therapy can improve patients' sleep quality, but they have drawbacks such as high price, drug resistance, and easy to damage the skin, whereas acupuncture has significant efficacy, few side effects, low price, and ease of use in the treatment of insomnia. Acupuncture is widely recognised in the treatment of insomnia, and research on different acupuncture therapies is increasing year by year. By searching the Chinese Journal Full Text Database (CNKI), Wanfang Database and PubMed Database, relevant clinical randomised controlled trials of acupuncture for insomnia in the past 6 years were included for generalisation and summary, aiming to provide clinicians with new ideas and methods for the treatment of insomnia.*

Keywords: Acupuncture, Insomnia, Treatment, Clinical randomised controlled trial.

1. Introduction

Insomnia, known as "do not sleep" and "eyes do not close" in Chinese medicine, includes symptoms such as not easy to fall asleep, easy to wake up in the middle of sleep, difficult to go back to sleep after waking up, or waking up from sleep. In western medicine, it refers to the feeling of dissatisfaction with the subjective sleep time and/or quality of sleep, in spite of the appropriate sleep opportunities and sleep environment [1-2]. dissatisfaction, and even daytime dysfunction such as poor concentration and cognitive impairment [1-2]. Prolonged insomnia can induce or aggravate palpitations, chest paralysis, vertigo, headache, stroke and other conditions [3]. According to the World Health Organization, insomnia is the sleep disorder with the highest incidence rate, and the global rate of sleep disorders reaches 27% [4]. The 2023 China Sleep Study Report shows that the sleep index score of Chinese residents is 67.77, the incidence of insomnia in adults is 38.2%, and there are 300 million people with sleep disorders [5]. In recent years, the acceleration of the pace of life and the increase in mental stress have caused the prevalence of insomnia to increase year by year.

Currently, the main methods of treating insomnia include psychotherapy, medication, physical therapy, and traditional Chinese medicine [6], and the U.S. National Heart, Lung, and Blood Institute and the American College of Physicians recommend psychotherapy as the initial treatment option for insomnia patients [7-8]. A large number of clinical observations and experimental data have confirmed that psychotherapy has obvious therapeutic effects without adverse effects [8-12], but the disadvantages of psychotherapy, such as expensive price, high requirements for therapists and poor patient adherence, make it difficult to be carried out in the clinic [7]. Clinical trials have confirmed the significant efficacy of drugs in the treatment of insomnia, and the current therapeutic drugs include benzodiazepine receptor agonists, biphasic orexin antagonists, melatonin and its receptor agonists, histamine antagonists, antidepressants, and antipsychotics [13-14], but the short-acting nature of their

medications, dependence, drug-resistance, withdrawal reactions, and other adverse effects have become a concern for patients and their families, and even for society as a whole [15-16]. Physiotherapy has light therapy, transcranial magnetic stimulation, transcutaneous auricular vagus nerve stimulation, etc., which has also shown some clinical efficacy in the clinic [17], but its lack of rigorously designed clinical studies, and the long treatment time, improper operation easy to cause skin damage, etc. are not accepted by the public.

Acupuncture has been included in the Chinese treatment guidelines for insomnia disorders in 2019 [18], and as a traditional treatment method in Chinese medicine, it is popular among the general public because of its advantages such as low side effects, low price, ease of use and significant efficacy [19]. In order to have a comprehensive understanding of the treatment of insomnia by acupuncture, as well as to find safer and more effective treatments and to open up new perspectives, a total of 817 Chinese and English literature articles on the treatment of insomnia by acupuncture in the last 6 years were searched from the Chinese full-text periodicals database (CNKI), Wanfang database, and PubMed database, and from them, 260 clinical trials on the treatment of insomnia by acupuncture were screened out to provide new ideas for the treatment of insomnia for the clinical medical practitioners. To provide new ideas for clinical practitioners to treat insomnia.

2. Tempering

Tang Wang Bing, in his book, "Tempering, Fire Needle", also known as burnt needle, simmering needle, burning needle, refers to the use of fine fire needles to burn red on the fire and then quickly pierce the human body, and then immediately withdrawn in order to treat the disease. Hong Qiuyang et al [20] treated insomnia of the heart and spleen deficiency type, the treatment group was given fire needle treatment to the heart Yu and spleen Yu, and the control group was given conventional acupuncture, and the total effective rate of the treatment group was 94.3%, which was higher than that of the

control group ($P < 0.05$), and the PSQI and Chinese medicine symptom scores were significantly lower than those of the control group after the treatment and at the follow up, which indicated that the fire needle can effectively improve the quality of sleep and clinical symptoms. Based on the theory of fire depression and heat-induced heat, Lingnan fire acupuncture has the effect of warming, eliminating, clearing and replenishing [21]. Song Yuxuan [22] used Lingnan fire needling to puncture Baihui and Sishencong, 3 times per point, 3 strokes per puncture, and acupuncture points such as Sishencong, Anmian, and Zhaohai, and found that the total effective rate could be up to 93.3%, and that it was more advantageous than general acupuncture in terms of improving the quality of sleep and daytime function.

3. Electroacupuncture

Electroacupuncture is a therapy that uses a millimetre needle to prick acupoints to obtain qi, and then uses an electroacupuncture instrument to output impulse microcurrents close to the bioelectricity of the human body, and then acts on the parts of the human body through millimetre needles to prevent and treat diseases [23]. Yin et al. [24] needled acupuncture points of Baaihui, Shenting, Yindang, Anmian, Shenmen and Neiguan, connected to Baaihui and Yindang, and chose a continuous wave, and found that electroacupuncture could significantly reduce the Pittsburgh Sleep Quality Index (PSQI) score, significantly reduce the severity of insomnia, depression and anxiety of patients, and significantly improve the sleep quality of patients and continue to improve at 32 weeks. Electro-collar acupuncture is the treatment of head and neck disorders by combining cervical and neck acupoints with electro-acupuncture [25]. Wu Jianli et al [26] used electro-acupuncture to treat primary insomnia, needling Fengchi, Gongxue, Four Shencong, and Sun points, connecting the pulse therapy device to the same side of the Fengchi (positive pole) and Gongxue (negative pole), and selecting a sparse wave of 2Hz to the extent that the patient's head swings mildly, and found that the electro-acupuncture therapy was superior to traditional needling in improving the quality of sleep, prolonging the duration of sleep, and relieving the degree of anxiety and depression, with an overall effective rate of 91.4%, which was significantly higher than that of traditional acupuncture ($P < 0.05$).

4. Intradermal Needles

The LING Shu-SHI Zhong pointed out: "the long time sick people deep inside and stay for a long time". Intradermal needles, also known as buried needles, is an extension of the "quiet to stay long" method of stabbing, that is, special small needle into the subcutaneous tissues, fixed in the acupoints, leaving the needle for a long period of time to produce a sustained and gentle stimulation to stimulate the body's positive qi in order to treat the disease [27]. Zhang Yuanlin et al [28] treated insomnia in elderly diabetes mellitus, on the basis of glucose-lowering and other treatments, the control group was given eszopiclone tablets, and the treatment group was given intradermal needling in the Neiguan, Heart, Liver, Spleen, and Kidney four yu, and the total effective rate of the treatment group was 93.33%, which was significantly higher than that of the control group ($P < 0.05$), and the PSQI and

Chinese medicine symptom scores were better than that of the control group, which indicated that intradermal needling could significantly improve the quality of sleep and improve the mental state. Yang Ling et al [29] treatment of insomnia, the observation group was given five viscera Yu plus diaphragm Yu buried snap needles, to the absence of tingling sensation, patients were instructed to press 3-4 times a day, stayed in the needle for 1 day, the interval of 1-2 days, three times a week, and the control group was given eszopiclone tablets of 1mg per night, and the treatment found that the effect of the two groups to improve the patient's sleep condition was comparable, but the snap needles were more advantageous in terms of improvement of diurnal functioning.

5. Acupuncture Point Buried Thread

Acupuncture point buried thread is absorbable medical suture placed into the acupoints, the use of the line on the acupoints to produce a lasting soft benign stimulation to prevent and treat disease, is a long-lasting acupuncture [30]. Tianqian et al [31] treated female subhealth insomnia by selecting five viscera yu plus diaphragm yu, subcutaneous superficial fascia of the face, Wu Shen Xue, Ge Guan Xue and Du Qi Zhen to bury the threads in the acupoints, and found that the patients' PSQI scores still decreased with the passage of treatment time after 2 weeks of treatment, with a total effective rate of 67.5% at the end of the 8-week treatment, and an overall effective rate of 85.0% at the end of the 8-week treatment, and the study found that acupoint embedding had a good effect on the treatment of subhealth insomnia in women. The study found that acupuncture point embedding has good near- and long-term efficacy for the treatment of insomnia in women with subfertility. Fu et al [32] randomly divided 510 insomnia patients into buried thread group, acupuncture group and drug group, the main acupuncture points are Neiguan, Foot Sanli, Sanyinjiao, buried thread once in ten days, acupuncture once a day, drug every night orally Oudin tablets 1mg, after 30 days of treatment buried thread group is better than the drug group in terms of reducing the PSQI scores, and after 60 days in the International Unified Sleeping Efficiency Value scores are significantly higher than the acupuncture group, which indicates that buried thread near and long term clinical efficacy are better than the acupuncture and drug. and long-term clinical efficacy were better than acupuncture and drugs.

6. Moxibustion

Moxibustion is the use of moxa or moxa-based moxibustion materials to burn, warm and iron acupuncture points and lesions, and to achieve the purpose of disease prevention and treatment by the dual action of moxibustion fire and drugs [33]. Zhang Wanrong et al [34] treated perimenopausal insomnia with the main acupoints of the middle epigastric region, the lower epigastric region, the Qihai region, and the Guanyuan region, which were divided into moxibustion and acupuncture groups, and found that the moxibustion group had the same effect as the acupuncture group in improving the time to fall asleep, sleep disorders, and daytime dysfunctions, but it was superior to the acupuncture group in improving the total PSQI scores, sleep quality, sleep duration, and sleep efficiency, and the total effectiveness rate of moxibustion was 89.29%, which was significantly higher than that of

acupuncture ($P<0.05$). Wang Qiang [35] used wheat grain moxibustion of the five viscera yu as the main treatment for insomnia of the heart-spleen deficiency type, and the PSQI points and total scores, and Chinese medicine symptom scores were significantly improved, and the total effective rate was up to 93.33%, which led to the conclusion that moxibustion can significantly improve the overall quality of sleep.

7. Stabbing and Releasing Blood

Su Wen-Xue Qi Xing Zhi point out: "Wherever a disease is treated, the blood must be removed first". Bloodletting refers to the use of three-pronged needles (beryllium needles, sharp needles) or thick and sharp needles to rapidly puncture acupuncture points or superficial blood channels according to a certain technique to release the appropriate amount of blood to prevent and treat diseases [36]. Lai Huanjie [37] treated patients with yin deficiency and fire-excited type of insomnia, and the experimental group was given auricular nodal points and wheel 4 points to puncture the bloodletting, and 5-10 drops of blood were let out each time for 2 times/week, and the control group was given oral Huanglian Agaricus Tang granules for 2 times/day. The total effective rate of the test group was 90.63% higher than 80.65% of the control group ($P<0.05$), and it was more obvious than the control group in the improvement of sleep quality, sleep efficiency, and Chinese medicine evidence, and there was no adverse reaction; the results were the same as before after the follow-up investigation. Chen et al [38] treated college students with primary insomnia, and it was treated with bloodletting from the ear tip, ear vest, and shenmen acupoints, and the main treatment of subcortical and sympathetic acupoints compression. The total effective rate after 8 weeks of treatment was 86.1%, and the total effective rate after 1 month of follow-up at the end of treatment was 94.4%, and all the PSQI items and total scores were lower than before.

8. Acupuncture Point Dressing

Acupuncture point patch therapy is a method of treating diseases by applying medication to acupuncture points based on the theory of meridians and collaterals in traditional Chinese medicine [39]. Zhao Na et al [40] instructed patients to apply sleeping patches on Shenque, Qihai, and ZuSanLi half an hour before bedtime, once every other day, and found that acupoints patching can significantly improve sleep efficiency, reduce the index of micro-wakefulness, and improve the structure of sleep to treat chronic insomnia. Chen Ying et al. [41] treated patients with insomnia combined with stroke recovery by applying acupoint patch at Shenmen acupoint, and the results showed that acupoint patch could effectively relieve insomnia symptoms and improve sleep quality and sleep efficiency.

9. Microneedling

9.1 Wrist and Ankle Acupuncture

Wrist and ankle needle is Professor Zhang Xinshu in the combination of traditional acupuncture and modern neurological theories based on years of clinical verification [42], selected wrist, ankle specific point of entry, along the longitudinal axis of the limb with a millimetre needle

subcutaneous puncture in order to treat the disease of a characteristic therapy [43]. Li Ran et al [44] treated 150 cases of insomnia, the treatment group daily acupuncture bilateral upper 1 area, the control group daily take eszopiclone tablets before bedtime, the results show that wrist and ankle acupuncture is better than drugs in improving sleep efficiency, clinical symptoms, clinical efficacy, PSQI scores and so on, and it can effectively improve the quality of life. Shi Jinhua et al [45] used wrist and ankle acupuncture as the main treatment for intractable insomnia, selecting bilateral upper 1 area and upper 2 area, the total effective rate of 84.8%, higher than the conventional drug group ($P<0.05$). The results show that wrist and ankle acupuncture-based treatment can significantly improve the quality of sleep and fatigue.

9.2 Head Acupuncture/scalp Acupuncture

Head acupuncture is a therapeutic method that involves needling a specific part of the scalp with a millimetre needle or other needle tool, also known as scalp acupuncture [46]. It is generated on different theoretical bases such as the traditional theory of internal organs and meridians, the holographic theory or the projection of the functional positioning of the cerebral cortex on the scalp and the positioning of the cranial sutures [47], and different theoretical systems and many schools of thought have been formed in the continuous exploration [48].

9.2.1 International Standard Head Needle

The international standard head acupuncture was developed and adopted by the Chinese Acupuncture Society in accordance with the International Standard Naming of Acupuncture Points and the principles of zoning and defining meridians, selecting points on meridians, and penetrating and stabbing points, which divided the scalp into 4 zones of frontal-parietal-temporal-occipital and 14 lines [49]. Ding Dingming et al [50] treated 90 patients with primary insomnia, the head acupuncture group was given frontal midline, frontal parietal 1 line, frontal parietal 2 lines, the conventional acupuncture group was given Baihui, Shenmen, Anmian, Sanyinjiao, Shenwei, Zhaohai, and the drug group was given eszopiclone tablets 1mg, and the total effective rate of the head acupuncture group was 93.33%, which is superior to that of the conventional acupuncture group and the drug group ($P<0.05$), and the head acupuncture group was better than the other two groups in terms of improvement of the clinical symptoms, sleep disorders, and life quality, etc. The head acupuncture group was more effective than the other two groups. Dong Guojuan et al [51] included 60 students with sleep disorders due to test anxiety and performed head acupuncture in the supraoccipital midline, parietal midline, and frontal midline, which was found to be superior to the conventional acupuncture group in terms of immediate efficacy in improving sleep and anxiety status, as well as in terms of long-term efficacy.

9.2.2 Jin's Head Acupuncture

Jin's head acupuncture was proposed by Professor Jin Rui, the main point is three needles for one area, and the matching points are based on the principle of evidence-based treatment, with more emphasis on the sense of obtaining qi, rows of stabs,

twisting and flying method and appropriate complementary and diarrhoeal techniques [47]. Liu Hui [52] treated intractable insomnia, group A was given Jin's "sleep three needles", group B was given conventional acupuncture, and group C was given dexzopiclone tablets, the total effective rate of group A was 95.00%, which was higher than the rest of the two groups ($P<0.05$), and the reduction of PSQI and Chinese medicine symptom scale scores was more obvious than that of the rest of the two groups, which indicated that Jin's "sleep three needles" was more effective than the rest of the two groups, which indicated that Jin's "sleep three needles" was more effective than the rest of the two groups. Liao Pengqi et al [53] treated perimenopausal insomnia with Ding Shen acupuncture, Yin San acupuncture, Yang San acupuncture, Shou Zhi acupuncture, Zu Zhi acupuncture, divided into alprazolam drug control group and Jin San acupuncture observation group, the total effective of the observation group was 86.67%, which was significantly higher than that of the control group, 63.33%, and the effect of Jin three-needle acupuncture was more effective in the improvement of sleep disorders, sleep efficiency, and diurnal functioning.

9.2.3 Zhu's head acupuncture

Zhu's Head Acupuncture was proposed by Professor Zhu Mingqing, which combines the needle-delivery techniques of pumping and advancing qi with guiding and vomiting to prevent and treat diseases, dividing the head into nine treatment bands centred on Baihui and the Du Mai [47]. Chen Jiayao et al [54] used Zhu's head needles of the frontoparietal band, anterior temporal line, and posterior temporal line as the main treatment for insomnia of the heart-spleen deficiency type, twisting the needle at 15° - 30° to enter the needles, advancing the needles flatly by 0.2 mm after reaching the connective tissues, and performing the pumping method for 5 times, with an overall clinical effectiveness rate of 90.0% ($P<0.05$), which was better than the simple guiding and exhaling method to lower the scores of the PSQI, Chinese medicine certificates and other scores, and improve the quality of life compared to simple rejuvenating spleen soup. Zhang Yaling et al [55] treated 30 cases of insomnia patients with frontal-parietal band, Hegu, and Taichong as main acupoints, 12 cases were cured, 10 cases were effective, 6 cases were effective, and the total effective rate was 93.33%, which significantly improved the quality of sleep, daytime function, and the efficiency of sleep.

9.2.4 Yu's head acupuncture

Yu's head needling was proposed by Professor Yu Zhishun based on scientific research, clinical experience and innovation in understanding head needling, which is characterised by zoning, clumping, intermittent rows of needles and long retention of needles [56]. Liu Xudong et al [57] gave patients with cervicogenic insomnia cephalic acupoint clustering in the parietal, frontal, and collateral areas, with 3-5 simultaneous stabs in 1 treatment area, together with cervical spine arthrodesis, with an overall clinical effectiveness rate of 90.6% ($P<0.05$), and analysis of this type of method was found to be more advantageous in improving all aspects of sleep than simple nudging therapy by PSQI scores and polysomnographic evaluations. Zhang Ye [58]

treated patients with heart and spleen deficiency type of insomnia, the experimental group head point plexus stabbing together with the original point, and the control group conventional acupuncture, after 1 month of treatment, it was found that the total effective rate of the experimental group was higher than that of the control group ($P<0.05$), and it was better than that of the control group in terms of the improvement of the quality of sleep, the clinical evidence of traditional Chinese medicine, and the degree of PSQI.

9.2.5 Jiao's head acupuncture

Jiao's head acupuncture was first proposed by Director Jiao Shunfa, a head acupuncture therapy that divides the head into 19 stimulation zones such as motor zone, sensory zone, and vasodilatation zone for acupuncture [59]. Peng Liu et al [60] treated 60 cases of insomnia patients with subhealthy state in menopausal women, acupuncture group selected emotional zone, vasodilatation zone, Baihui, Si Shencong and other acupuncture points, once a day, the drug group daily half an hour before going to bed oral eszopiclone 1mg, the clinical effectiveness rate of 93.3% better than the drug group ($P<0.05$), the PSQI items and the total score reduction is obvious compared with the drug group, and it is more important to improve the quality of sleep, the function of daytime In terms of improving sleep quality and daytime functioning, it has more unique advantages. Xinhao Li et al [61] treated insomnia of the liver depression and fire type by selecting the vasodilatation zone, the mental-emotional zone, and the halo auditory zone, and found that Jiao's head acupuncture was not only able to improve the quality of sleep, but also its accompanying symptoms, and its clinical efficacy was better than that of the conventional acupuncture group.

9.2.6 Qin's head eight needles

Qin's "eight needles for the head" is a clinical formula proposed by Professor Qin Liangfu, which uses Baihui, Yintang, Fengchi, Shuaigu, and Tou Linqi as the main acupoints [62]. Yang Yue et al [63] treated intractable insomnia in the elderly, and the results showed that Qin Bazhou combined with eszopiclone could prolong the length of deep sleep of the patients, reduce the frequency of hypnotic drugs, alleviate cerebral fatigue as well as anxiety, etc., with a clinical cure rate of 37.14% and an overall effective rate of 82.86%, which was significantly higher than that of the eszopiclone group alone ($P<0.05$). Shen Zhiqin et al [64] treated 88 patients with insomnia of heart yin insufficiency type, the control group was given Tianwangxin Tonic Dan plus reduction, and the observation group added Qin's head eight needles on the basis of the control group, and the total clinical effective rate of the observation group after treatment was 70%, which was significantly higher than that of the control group of 41%, and it could significantly improve the patients' insomnia, anxiety, depression and other syndromes.

9.2.7 Fang's Head Acupuncture

Fang's Head Acupuncture, also known as Shaanxi Scalp Acupuncture, is a system of head acupuncture originated by Professor Fang Yunpeng that treats systemic ailments by needling specific stimulation points on the scalp, dividing the entire head into four main parts: the ambulatory image,

ambulatory viscera, inverted image, and inverted viscera [47]. Xu Xiaoying et al [65] treated patients with insomnia, the observation group was given flying needles to directly stimulate the head of Fuxiang, Fuxiao Shangjiao, Fuxiao Zhongjiao, and Civi, and performed tremor manoeuvres, and all PSQI scores and related parameters of polysomnography were better than those of the control group after the treatment, and the total clinical effectiveness rate was 93.8%, which was higher than that of the control group ($P < 0.05$), suggesting that the observation group was able to significantly improve the quality of sleep and regulate the structure of sleep. Qiao Yiqi [66] used Fang's head acupuncture combined with body acupuncture for the treatment of insomnia of heart-spleen deficiency type, head acupuncture for volvulus head, volvulus superior jiao, volvulus middle jiao, memory, signalling, and thinking, which could effectively improve the insomnia and anxiety situation, and it was especially superior to the simple acupuncture group in shortening the time of sleep, and the total clinical effectiveness rate of 90.0% was also significantly higher than that of the simple acupuncture group.

9.3 Eye Acupuncture

Eye acupuncture is a kind of therapy that was pioneered by Professor Peng Jingshan based on "looking at the eyes to detect diseases", the five chakras and the eight contours, combined with the intrinsic connection between the eyes and the meridians, and after a long period of clinical observation and research, a kind of acupoints around the eye orbits were needled to prevent and treat diseases [67]. Luo Yuanyuan et al [68] used eye acupuncture combined with body acupuncture for the treatment of post-stroke insomnia, with eye acupuncture in the cardiac and Shaojiao regions, and their clinical efficacy was significant, with a total effective rate of 93.3%, which was higher than that of body acupuncture alone ($P < 0.05$), and the reduction of PSQI scores was even more pronounced, which suggests that the combination of eye acupuncture with body acupuncture is superior to body acupuncture alone in improving the quality of sleep. Zhao Jianwei [69] used eye acupuncture with dexzopiclone tablets for the treatment of insomnia of heart-spleen deficiency type. Eye acupuncture was taken in the heart-small intestine area, spleen-stomach area, and the total effective rate of the treatment was 90.00%, which was significantly higher than that of the drug-only group ($P < 0.05$), and the decrease of the PSQI and the Chinese medicine evidence scores was more obvious than that of the drug-only group, which indicated that the overall therapeutic efficacy of the treatment of insomnia was better when the eye acupuncture was combined with the dexzopiclone tablets.

9.4 Abdominal Acupuncture

Professor Bo Zhiyun combined the projected distribution of internal organs in the abdomen and the eight contours method of taking acupuncture points to propose abdominal acupuncture therapy, referring to acupuncture in the umbilicus around the formation of a tortoise-shaped abdominal specific points to prevent and treat diseases of a kind of acupuncture therapy [70]. Yu Mei et al [71] treated perimenopausal insomnia patients with abdominal acupuncture as the main acupuncture point, together with Chai Hu Shu Gan San, using the middle epigastric region, the

lower epigastric region, Qi Hai and Guan Yuan as the main acupuncture points, and the yindu, Rou Huaman, and the Daheng as the auxiliary acupuncture points, and the results demonstrated that the abdominal acupuncture combined with the Chai Hu Shu Gan San could better improve the quality of sleep and the clinical symptoms, and enhance the clinical efficacy. Pan Shuxia [72] treated 66 cases of menopausal insomnia patients, randomly divided into abdominal acupuncture treatment group and ordinary millimetre needle control group, the treatment group take the middle epigastric region, the lower epigastric region, Guanyuan, Rou Huaman, Wailing as the main points, the control group take Anmian, Yintang, Zhaohai, etc. as the main points, the total effective rate of the treatment group is 96.87%, which is higher than that of the control group ($P < 0.05$) and the treatment group is more effective in improving the symptoms of insomnia more quickly and more significant effect. The total effective rate of the treatment group was 96.87% higher than the control group ($P < 0.05$).

9.5 Ear Acupuncture

"The ear is the gathering place of the zong chakra" in Ling Shu-Kou Wen. The human auricle as a foetus placed upside down in the mother's uterus, the distribution of countless ear acupuncture points, ear acupuncture refers to the use of millimetre needles and other methods of stimulation of the ear acupuncture points in order to prevent or diagnosis and treatment of disease [73], commonly used in the pressure of the bean method, burying needles, bloodletting and other more than 20 kinds of stimulation methods. Feng Xiaojian et al [74] treated 120 patients with stress insomnia, the auricular pressure seed group selected Shenmen, kidney, liver, brain point, occipital and endocrine, and the acupuncture group selected bilateral Zhaohai and Shenmai, the results showed that the total effective rate of the auricular pressure seed group was significantly higher than that of the acupuncture group ($P < 0.05$) at 98.33%, and the decrease in the PSQI scores of each factor and the total scores was more significant than that of the acupuncture group. Liu Juan et al [75] used auricular acupuncture as the main treatment for patients with perimenopausal insomnia, choosing auricular points of the hypothalamus, endocrine, subcortical, pituitary, and ovary, together with fenmotepine, and the results showed that auricular acupuncture combined with fenmotepine was more effective than fenmotepine alone in improving the quality of sleep, anxiety and depression, and clinical symptoms.

10. Summary

There are many different methods of acupuncture for the treatment of insomnia, all of which have the characteristics of safety and convenience, small side effects, low price, and significant therapeutic effects, and have been widely used in recent years. However, there are still some problems in the study of acupuncture treatment of insomnia from many clinical literature: in the research object, the insomnia population can be further specified, such as exploring whether there is a difference in the efficacy of acupuncture on different types of insomnia (idiopathic insomnia, secondary insomnia, sleep rhythm disorders, etc.) and different Chinese medicine certificates. In terms of research time, the follow-up period can be extended to further confirm the long-term efficacy and

recurrence. In terms of research methods, various treatments can be controlled to compare their clinical efficacy for clinicians to choose a better treatment plan for insomnia. In terms of research mechanism, there are many papers on theoretical discussions and clinical trials, but the research on the intrinsic mechanism of the treatment methods is not in-depth enough, and should be combined with modern medical science and technology basis and analysis means to explore the intrinsic mechanism of acupuncture for insomnia from the aspects of neurotransmitters, hormones, inflammatory factors and so on. It should be combined with modern medical science and technology base and analysis means to explore the intrinsic mechanism of acupuncture treatment of insomnia from the aspects of neurotransmitters, hormones, inflammatory factors.

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