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Acupuncture treatment for insomnia

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Abstract: Through reading insomnia literature recent five years about acupuncture treatment such as body acupuncture,scalp acupuncture,electro-acupuncture, ear acupuncture, etc. I consider acupuncture treatment of insomnia have a definite clinical efficacy. Acupuncture and summarize recent years developments I can provide ideas and ways to further exploration.

Keywords: insomnia; acupuncture treatment; Review

Introduction: Insomnia also known as "Insomnia", "not sleeping", "not lying". Insomniacs are often unable to obtain normal sleep, difficult to fall asleep, lack of sleeping, and sleeping is not deep. Seriously, patient cannot fall asleep all night. The disease is also called In Western medicine neurasthenia. Insomnia is the most common type of sleep disorders. With the pace of modern life quickening, insomnia has an impact on modern life and become a major disease. At present, the number of insomnia has reached 1.2 million. Experts estimate that by 2020, there are about more than 700 million insomniacs all over the world. Due to quality problem caused by sleep health costs increase and decline in work efficiency, has become a public health problem widely concerned by many countries, a substantial proportion of western medicine is used to treat insomnia but western medicine is easy to produce drug dependence and abuse. Chinese medicine treat insomnia has a good effect, especially acupuncture treatment is remarkable, has a considerable advantage, has been widely used. Therefore, this paper about the clinical report of the acupuncture treatment of insomnia is a brief review. I refer more than 20 related articles the past five years, they are summarized as follows:

Materials and methods:

1 on the clinical treatment of insomnia:

1.1 acupuncture

Zheng Ping, et al^[1] in order to explore the effective method of acupuncture treatment of insomnia, insomnia patients 92 cases were randomly divided into the treatment group of 46 cases and 46 cases of control group, treatment group were treated with acupuncture at Baihui, Shenmen, Neiguan, Sanyinjiao therapy; Acupuncture with uniform reinforcing-reducing method. And electroacupuncture at Neiguan point, God door, G6805-1 electroacupuncture instrument of positive and negative electrodes are respectively connected double Shenmen, Neiguan, energized with both hands and wrists slightly beating muscle radiation feeling. Every other day for 1 times, treatment 10 times, a total of 20 D. The control group with oral administration of Western medicine estazolam treatment, every time 1 mg, once a day, before the 1 h. A total of 20 D, comparative efficacy of 20d. The results showed that the total effective rate of treatment group was 89.1%, total effective rate of the control group was 69.6%, there was significant difference between two groups ($P < 0.01$), it is suggested that acupuncture treatment of insomnia, the total efficiency is better than pure western medicine treatment. Zhang Rui^[2] in order to observe the clinical effect of acupuncture in the treatment of depression, insomnia, 55 depressive patients with insomnia treated with acupuncture, Neiguan, Zusanli, Sanyinjiao Gongsun, Sishencong, liver depression of the fire and liver Yu, Taichong; phlegm heat and Fenglong; Yin deficiency Hot and Shenshu, Taixi; heart lienal two empty adds heart Yu, spleen Yu; timid timid adds heart Yu, danshu. Thorn Law: Gongsun, Neiguan: vertically into the needle, needle puncture 0.5 ~ 1 inch inwards, Zusanli, Sanyinjiao: vertically into the needle, needle. Thorn 1.5 ~ 2.5 inches, Sishencong: back flat thorn 0.5 ~ 1 inches, underwent reinforcing-reducing method, treatment for 30 min, 1D1 10, D1 treatment. The results showed that after 1 courses of treatment, the total effective rate was 96.36%. Before and after treatment were significant differences, after acupuncture treatment, patients with PQSI scores and the components of the score were decreased than before treatment, the t test, $P < 0.05$, significant difference. It is suggested that acupuncture has obvious curative effect on improving the clinical symptoms of patients with insomnia. Hu Yuhua et al^[3] in order to observe the curative effect of acupuncture regulating Du two veins with conventional acupuncture in the treatment of insomnia. Single blind method was used in 120 patients were randomly divided into routine acupuncture group of 40 cases, treated with routine acupoints differentiation. Ren group 40 cases (yin deficiency syndrome), Du group 40 cases (Yang Group), group the main point to Ren Ren main acupoints (danzhong Zhongwan, Qihai, Guanyuan,). Du group the main point to Du Meridian Acupoints (mainly Baihui, shenting, Yintang, people, Dazhui), Ren group with acupuncture point: Shenmen, Neiguan, sleeping, Taixi, Taichong, smoking point. The conventional group of treatment based on syndrome differentiation acupoints, daily 1, 1 period of treatment 10, treatment breaks 3D. The effect was evaluated after 2 courses. Results showed that acupuncture conditioning Ren and Du two

veins and routine acupuncture can improve the sleep condition, Ren and Du two Mai group is significantly superior to that of routine group ($P < 0.01$), the recurrence rate is lower than the normal group. It is suggested that acupuncture regulating Du two veins in treatment of insomnia, the balance of yin and Yang from whole to regulate the body, Yang into Yin, and since the night, curative effect, high cure rate, low recurrence rate. Zhu Pengzhou^[4] observed diarrhea south up north acupuncture treatment of insomnia curative effect, 38 cases of insomnia patients, the main point of the acupuncture Shenmen, wrist, Taixi, clock, springs, complex slide, according to the sea. Operating with the reinforcing-reducing method, the needle for 20 min, 1 week 3, 2 weeks for 1 courses. Results: 10 cases were cured 38 cases, effective 25 cases, invalid 3 cases; the total effective rate was 92.11%. Conclusion: diarrhea south up north to acupuncture treatment of insomnia has good curative effect. Which God door for the original point of fiery heart, can clear heart, can be nourishing heart Yin, too River as the original point kidney, can be nourishing kidney yin; the clock for the kidney meridian acupoint, springs for kidney Xi-Cleft points, Fu Liu as kidney meridian, kidney meridian points for the mother, but also Nourishing Kidney Yin as the sea eight confluence points, Tong Yin heel vessel, can adjust the function of the kidney. Embodies the purging fire and water, which also reflects the original point method and the original network points, regulating yin and Yang, dredge main and collateral channels, effect of the treatment of insomnia remarkable.

1.2 scalp acupuncture therapy

Zhou Zhangling et al^[5] in order to observe the effect of scalp penetration acupuncture clinical method in the treatment of insomnia. 70 patients met the inclusion criteria of insomnia patients were randomly divided into scalp acupuncture group and routine acupuncture group, which fall off in 4 cases, and ultimately the scalp penetration acupuncture group included 32 patients, routine acupuncture group included 34 patients. Scalp acupuncture group received scalp penetration acupuncture, scalp penetration acupuncture needling group: after hearing before God through God astute, fontanelle will through the court of God, but through the network, or about Chengguang bending difference. But the routine acupuncture group were given ordinary acupuncture therapy. Two groups of patients were treated for 4 weeks. Main outcome measures: changes before and after treatment of clinical efficacy of two groups were compared, the Pittsburgh sleep quality index of each component integration and sleep structure. The results showed that scalp acupuncture group, the total effective rate was 90.6%, better than the routine acupuncture group of 73.5% ($P < 0.05$). The scalp penetration acupuncture method to improve sleep quality, sleep time and sleep efficiency is better than that of routine acupuncture method ($P < 0.05$, $P < 0.01$). Head Point-Though-Point method can significantly increase the total sleep time and sleep time, compared with the conventional acupuncture group, the difference was statistically significant ($P < 0.01$). Conclusion the scalp penetration acupuncture clinical curative effect is better than that of routine acupuncture treatment of insomnia, especially for improving sleep quality, sleep time and sleep efficiency. Li Xiaoyan^[6] 70 cases were from Department of acupuncture and moxibustion in outpatients of our hospital were randomly divided into scalp acupuncture group and body acupuncture group and 35 cases in 35 cases. Scalp acupuncture group acupuncture shenting, Sishencong, head falling tears. Acupuncture group received acupuncture treatment, generally, lifting and thrusting reinforcing-reducing or twirling reinforcing-reducing method, treatment for 30 days, scalp acupuncture group of 35 cases, 14 cases were cured, 12 cases markedly effective, 8 cases, 1 cases ineffective, the total efficiency of 94.129%; control group 35 cases, 7 cases were cured, 9 cases markedly effective, in 9 cases, invalid 10 cases, the total efficiency of 71.143%. Comparison between the two groups (V_2 test) showed significant differences ($P < 0.05$). Prompt acupuncture, the lesion vein patency, balance of yin and Yang, Qi and blood to achieve peace, Shugan Qi, qi stagnation, Ning Anshen purposes, so as to achieve the purpose of treating insomnia. And the curative effect is better than that in the control group.

1.3 electroacupuncture therapy

Xing Yanli, Liu Bo, ect.^[7] observed clinical curative effect of electrical arrowhead needle in the treatment of insomnia, 50 cases of insomnia were randomly divided into treatment group (25

cases) and control group (25 cases). The treatment group adopts electric spoon needle treatment, control group treated with estazolam tablets, treatment of 30 days. Results: the total score of PSQI in patients with insomnia, sleep, sleep structure process after treatment than before treatment improved, the difference was significant between groups 3 indexes after treatment. Conclusion: the electric spoon needle can effectively treat and improve insomnia. Wang Yingming^[8] demonstrated efficacy four acupuncture, with randomized controlled trial method, 60 eligible subjects allocated to the ratio of 1:1 to two groups of 30 cases in treatment group, with four Guan point electroacupuncture therapy; the control group 30 cases, oral Chinese patent medicine Dan mast Xiaoyao Pill treatment, treatment group every day for a, 10 to 1 course of treatment; the control group for 20 consecutive days to 1 course of treatment, the treatment groups before sleep rate is $P > 0.05$, comparable between groups; the two groups after treatment compared with before treatment were $P < 0.01$, $P < 0.05$, the difference was statistically significant, electroacupuncture group and Xiaoyao Pill group can improve sleep rate, improve sleep quality, and the acupuncture group is better than the mast Xiaoyao Pill group ($P < 0.05$), electroacupuncture with dredge main and collateral channels, balance yin and Yang effect, effect is better than the simple medication. Zhang Mei,ect.^[9] to observe the clinical effect of moving cupping plus acupuncture, 126 cases of insomnia were randomly divided into observation group and 63 cases in the control group. Observation group application of electric acupuncture combined with cupping plus Tongren Anshen pill treatment; the control group oral Tongren Anshen pills and estazolam treatment, a course of treatment, after treatment of the two groups before and after treatment of clinical efficacy and Pittsburgh sleep quality index (PSQI) score, followed up for 1 years to observe the long-term curative effect. Results the total effective rate in the observation group compared with the control group, $P < 0.05$, the difference was statistically significant. Long-term effect of observation group compared with the control group, $P < 0.01$, there were significant differences. The two groups after treatment PSQI score were significantly lower than that before treatment, there were significant differences ($P < 0.01$); in addition to sleep disorders, difference scores after treatment in two groups are highly statistically significant ($P < 0.01$). Conclusion: Cupping plus acupuncture can significantly improve the quality of sleep in patients with insomnia, long-term efficacy.

1.4 ear acupressure and acupuncture therapy

Gao Yuanwen^[10] to study the effect of the treatment group of auricular acupuncture for treatment of insomnia method primarily, auxiliary by pressing the acupuncture with auricular point; the control group only received conventional acupuncture treatment. The treatment group main point selection: vertical before insomnia (earlobe area 4), vertical (insomnia after opposite ear and ear point 4) and preauricular area (insomnia antitragus 2, District 3), insomnia (hard of hearing and ear zone 2, zone 3 antitragus opposite). For the king to leave no seed pressing 2 courses of treatment, the treatment group 20 cases were cured, 18 cases markedly effective, effective in 2 cases, the total efficiency of 100%; control group 15 cases were cured, 7 cases markedly effective, effective 12 cases, invalid 6 cases, the total efficiency of 85%. There were significant differences in efficacy between the two groups ($P < 0.05$). Prompt ear acupressure and acupuncture treatment of insomnia is better than that of routine acupuncture therapy. As Ya Dong^[11] of acupuncture, according to the sea with auricular clinical curative effect of pressure in the treatment of insomnia. Will be included in the 136 cases of insomnia were randomly divided into experimental group and control group, each group of 68 cases. The test group were treated with acupuncture and Shen Mai compensation according to the sea, pressing the heart, kidney, God door combined with auricular point, after syndrome with symptomatolofec; the control group conventional selection Sishencong, God door, sleeping acupoint point, with the card to add and subtract points. The two groups before and after treatment with sleep disorders to improve efficiency and Pittsburgh sleep quality index (PSQI) score, evaluation of efficacy. Results in the trial group, sleep to improve the total efficiency is 86.76%, control group with sleep improving the total efficiency of 72.06%, there was significant difference between two groups ($P < 0.05$), PSQI score evaluation test group before treatment was 16.13 ± 3.32 , after treatment was 7.76 ± 2.45 , control group before treatment was 15.97 ± 3.05 ,

after treatment 10.28 ± 3.01 , there was significant difference of PSQI score between the two groups after treatment ($P < 0.05$). Conclusion: acupuncture, auricular plaster therapy according to the sea with the loss of eye disease curative effect is better than the normal acupuncture, can effectively improve the life quality of the patients. Late Chunyan^[12] in 103 cases of patients with insomnia in acupuncture treatment of 2 lines, investigate the effect of acupuncture combined with auricular point therapy clinical curative effect for insomnia. Results of 103 cases of insomnia patients receiving acupuncture combined with auricular point therapy, 3 cases were invalid, effective in 43 cases, effective in 31 cases, 26 cases were clinically cured, 97.1% markedly effective. Conclusion: acupuncture is one of the characteristics of the treatment of traditional Chinese medicine, which is characterized by simple operation, safety, good efficacy, no dependence, no side effects, clinical advantages, have clinical significance for the treatment of insomnia, is worth the clinical promotion.

1.5 other therapy

1.5.1 intradermal needle therapy

Hou Yuru^[13] on the treatment of deficiency of two cases of insomnia effect of intradermal needle, and a total of 64 cases, according to the random number table method according to 1: ratio of 1, divided into the treatment group (conventional acupuncture combined with intradermal needle group) and control group (normal group). The control group only received basic treatment: the simple acupuncture treatment group: first, on the basis of treatment of acupuncture, conventional disinfection after intradermal needle buried bilateral heart Yu, spleen Yu Xue, the slightly acid bilges feeling, each time the needle for 2-3 days, daily press the needle embedding 4-5 times, each time 1-2 minutes. The two groups were 3 times a week, 12 times as a course of 1. Comparison of the PSQI scores of the two groups, the treatment group compared with the control group had no difference in half a course of treatment ($P > 0.05$), and at the end of the treatment period and in January after the end of treatment was better than the control group, $p < 0.05$. The treatment group and the control group can improve sleep quality, shorten sleep time, duration of sleep, improve sleep efficiency, sleep disturbances, reduce the frequency of hypnotic drug use, improve daytime dysfunction ($P < 0.05$), treatment group at the end of the treatment period and after the end of January than in the patients with daytime dysfunction (control group $P < 0.05$). Prompt intradermal for deficiency of two cases of insomnia have synergistic effect, and can be a long time to improve daytime dysfunction patient

1.5.2 warm acupuncture therapy

Wang Qian^[14] to discuss the therapeutic effect of acupuncture and moxibustion in treating insomnia, randomized clinical trials, would be consistent with the standard method of patients with randomly divided into treatment group and control group, 30 cases in each group, a total of 60 cases. The treatment group was treated by warm acupuncture Baihui plus Electroacupuncture Therapy, the control group was treated by Electroacupuncture therapy. Two groups of acupuncture dialectical acupoints Baihui, the point after the gas, in addition to the Baihui Point is connected to the G6805-II type electric acupuncture therapeutic instrument, with dense wave, size to patients can tolerate and comfortable, 30 minutes for. Treatment group at the same time in the Baihui with adhesive tape fixed needle body, the interception of Qing AI, 2cm treaty, lit is inserted in the needle handle, the natural burnout, three times a week, for three weeks. Results the total effective rate of treatment group was 97.67%, control group, the total efficiency of 90%. The clinical efficacy of the two groups were compared with Ridit analysis, $Z = -2.01$, $P = 0.04$, there was significant difference between the two groups ($P < 0.05$), warm acupuncture Baihui plus Electroacupuncture Treatment group clinical curative effect of electroacupuncture group.

1.5.3 Acupuncture therapy combined with

Fang Caiping^[15] to observe the curative effect of combined acupuncture and medicine in treating climacteric heart kidney disharmony type insomnia. Methods: 90 cases were randomly divided into treatment group and control group, treatment group 45 cases treated with acupuncture combined with medicine, 45 cases in the control group received only traditional Chinese medicine

decoction, 4 Zhou Wei 1 courses, 2 courses. To observe the clinical efficacy of two groups; and the clinical efficacy of the treatment group were analyzed. Results the curative effect of the treatment group was superior to the control group, the total efficiency of two groups showed a very significant difference ($P < 0.05$). Conclusion: the climacteric heart kidney incoordination of insomnia by acupuncture combined with better effect of treatment.

Results and discussion:

Insomnia belongs to mind disease, not only to pay attention to methods of treatment, and should pay more attention to the cultivation of the mind and pay attention to quality of sleep, it has practical significance for prevention. "Yunfeng, infuriating from, observe the spirit, lesions had." Positive psychological emotional adjustment, overcome excessive tension, excitement, depression, fear, anger and other negative emotions, do and have a day, keep the spirit, try to relax, let it be attitude in the face of sleep, it can better sleep.

Acupuncture is certain clinical efficacy in the treatment of insomnia, key acupuncture in treating insomnia is dredge main and collateral channels, regulating yin and Yang piansheng partial failure, so that the body to "Yin Pingyang secret" and restore the normal physiological function, it is for western medicine side effect is small, but there are also some problems. First, the long course of treatment, the treatment process should be further research on how to improve the efficacy, shorten the course of treatment. Secondly, the treatment of a variety of body acupuncture, scalp acupuncture, electroacupuncture, ear, other therapy, acupoint selection method is not the same as, the use of comprehensive therapy, the lack of standard solution. The clinical efficacy remains to be further explored, evaluation index effect of acupuncture and moxibustion treatment to efficiency, rate of sleep, the Pittsburgh sleep quality index to see, are too subjective, objective sleep quality index evaluation needs to be further used in acupuncture treatment of insomnia. Furthermore, at present many clinical reports, it is necessary to evidence-based medicine, randomized controlled trial requirements, strictly carry out multicentre validation, study of technical specification, in order to clinical application, is accepted by more patients, alleviate pain in early patients with insomnia. But on the whole, non drug treatment of insomnia is more and more in the clinician's attention, whether acupuncture, scalp acupuncture, acupuncture, ear acupuncture, other therapy for insomnia remarkable curative effect, and provides a wide prospect to further promote the treatment of the disease for acupuncture and moxibustion.

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Benzoylaconine affects on the sodium channel of ventricular myocytes of Guinea pig

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Abstract: Objective: To investigate the effect of the benzoylaconine on the Na⁺ current in guinea-pig ventricular myocytes. Material and Methods: The whole cell patch-clamp technique was used to examine the effect of benzoylaconine on fast sodium channel in isolated guinea pig ventricular myocytes. Results: The benzoylaconine (100 μM) increases the magnitude of the peak inward sodium current and G_{max}, slow the time course of Na⁺ channel inactivation. Conclusions: Benzoylaconine modified the gating and kinetics of cardiac Na⁺ channels in isolated guinea-pig ventricular myocytes.

Benzoylaconine can increase the maximum upstroke velocity (V_{max}) and prolongs the action potential duration of the cardiac action potential in cultured myocardiocytes of mice^(1,2). Action potential prolongation is of particular interest in heart muscle since it represents an antiarrhythmic principle. It has been known that cardiac excitation is critically dependent on the density and availability of voltage-gated Na channels. Availability of voltage-gated Na channels has been assumed to be primarily controlled by voltage. We undertook to further study the effects of those modifying on gating and kinetic fundamental properties by the toxin on Na channels using whole-cell current recordings, which have been used to examine the effect of a growing number of Na channel toxins in a variety of excitable tissues. Our results show that both conductance and voltage-dependent availability curves are significantly modulated and shifted the activation curves of I_{Na} to hyperpolarized potentials by benzoylaconine in guinea-pig cardiac myocytes.

Material and methods

Cell isolation

Single ventricular cells were isolated from guinea pig heart according to Reference⁽³⁾. Briefly, a guinea pig weighing 250 to 350 g was anesthetized with pentobarbital sodium (approx. 30 mg/kg, IP); the heart was removed and cannulated through the aorta on a Langendorff apparatus warmed at