# Clinical Report

# Excitement transfer therapy for 32 cases of insomnia

# 兴奋点转移疗法治疗失眠32例

1. School of Acupuncture-moxibustion, Fujian University of Traditional Chinese Medicine, Fuzhou 350122, Fujian Province, China; 2. Shenzhen Research Institute of Xiamen University, Shenzhen 518000, Guangdong Province, China; 3. Department of Traditional Chinese Medicine, Medical College of Xiamen University, Xiamen 361005, Fujian Province, China; 4. School of Acupuncture-moxibustion and Tuina, Hunan University of Chinese Medicine, Changsha 410208, Hunan Province, China (1. 福建中医药大学针灸学院,福建福州 350122,中国; 2. 厦门大学深圳研究院,广东深圳 518000,中国; 3. 厦门大学医学院中医系,福建厦门 361005,中国; 4. 湖南中医药大学针灸推拿学院,湖南长沙 410208,中国)

#### ARTICLE INFO

First author: Chen Jiao-long (1991-), female, postgraduate. Research field: clinical treatment and

mechanism research of acupuncture. E-mail: 18359199424@163.com.

Co-First author: Liu Caichun (1988-), female, Assistant Technician. Research field: clinical treatment and mechanism research of traditional Chinese medicine.

E-mail: liucaichun714@163.com

Corresponding author: Yang Zongbao (1973-), male, associate professor.

Research field: research on the action mechanism of acupuncture in the treatment of disease.

E-mail: yzbldq@163.com

Accepted on March 3, 2017.

#### ABSTRACT

**Objective** To observe the clinical efficacy of excitement transfer therapy for insomnia. Methods According to the inclusion criteria, 32 patients, selected from Guoyitang, affiliated Zhongshan Hospital Yanwu Branch of Xiamen University from May to October, 2016, were diagnosed with insomnia and included in this study. All the patients were treated by adopting the excitement transfer therapy, i.e. cluster needling was carried out at the acupoints of wrist and ankle in the manner of penetration needling, and combined with slidingcupping at governor vessel and bladder meridian on the back. All the subjects were treated for 3 times per week, and treatment for 6 times was considered as 1 course of treatment. The curative effect was observed after treatment for 2 courses, and follow-up visit was performed for two months after treatment. Efficacy evaluation criteria were established by reference to Guidelines of Clinical Research on Chinese New Herbal Medicine (Trial) Results Cured: 11 cases (34%), markedly effective: 16 cases (50%), effective: 4 cases (13%), ineffective: 1 case. The total effective rate was up to 97%. There was no relapse during two months after the treatment. Conclusion The efficacy of excitement transfer therapy for insomnia was significant, which was worthy of clinical promotion and application.

KEY WORDS: Excitement transfer therapy; insomnia; efficacy

Insomnia is a very common disease which has a great negative impact on the health and quality of life of patients<sup>[1-2]</sup>. Most of the clinical manifestations include difficulty falling asleep, profuse dreaming, festless sleep and difficulty falling asleep after awakening<sup>[3]</sup>. At present, western medicines are mostly adopted to treat insomnia in modern medicine, mainly including chloral hydrate, barbiturates, benzodiazepines, sedatives and other hypnotic drugs<sup>[3]</sup>. Although they are effective, and the hypnotic effect is remarkable, some side effects may generate due

to long-term use, such as residual effects of drugs, cognitive impairment and potential addiction, etc<sup>[5]</sup>. While Chinese herb medicines have attracted the attention of people all over the world because of the little side effect<sup>[6-7]</sup>. Acupuncture therapy is an important part of traditional Chinese medicine. It is called "green therapy" because of its safety, cost-effectiveness and without side effect<sup>[8]</sup>. It has been proved that acupuncture therapy has a good curative effect for insomnia<sup>[8-10]</sup>. Excitement transfer therapy is a kind of special acupuncture therapy with the

manipulations of cluster needling at the acupoints of wrist and ankle in the manner of penetration needling, and sliding-cupping at governor vessel and bladder meridian on the back. In this study, 32 insomnia patients from *Guoyitang*, affiliated Zhongshan Hospital Yanwu Branch of Xiamen University were treated by adopting excitement transfer therapy from May to October, 2016, and the curative effect was observed.

### CLINICAL DATA

#### General data

Thirty-two insomnia patients who visited our hospital from May to October, 2016 were selected. Among them, there were 15 males, and 17 females. The youngest was 30 years old, the oldest was 60, and the average age was 41.7 years old. The shortest course of disease was 2 months, the longest was 24 months, and the average course of disease was 6 months.

## Diagnostic criteria

All the patients with primary insomnia were selected based on the diagnostic criteria of insomnia in the Classification and Diagnostic Criteria of Mental Disorders in China (3<sup>rd</sup> Edition) (CCMD-3)<sup>[11]</sup>:

① with insomnia as the only symptom, and other symptoms were secondary to insomnia, including difficulty falling asleep, profuse dreaming, festless sleep, early awakening, difficulty falling asleep after awakening or sleepiness and fatigue, feeble in the daytime, ② with the above-mentioned abnormal sleep for at least 3 times per week and continuing for longer than one month, ③ residual insomnia effect in the daytime: mental efficiency was reduced or social and professional functions were hindered, ④ excessive fear about the consequence of insomnia.

## **Inclusion criteria**

① all the subjects were willing to participate in the study and have signed the informed consent form, ② with the age of 18–75 years old.

## **Exclusion criteria**

① Secondary insomnia caused by medication, gestation, lactation, mental factors or organic diseases; ② patients with severe liver and kidney deficiency or with other systemic diseases.

#### **METHODS**

# Cluster needling therapy

(1) Acupoint selection: ① on the head and face: Shàngyìntáng (印堂) (1 cun above EX-HN3),

Bǎihuì (百会 GV 20); ② around the wrist joints: Hégǔ (合谷 LI 4), Láogōng (劳宫 PC 8), Shénmén (神门 HT 7) and Nèiguān (内关 PC 6); ③ around the ankle joints: Tàichōng (太冲 LR 3), Yǒngquán (涌泉 KI 1), Zhàohǎi (照海 KI 6), Dàzhōng (大钟 KI 4), Tàixī (太溪 KI 3), Sānyīnjiāo (三阴交 SP 6) and Shuǐquán (水泉 KI 5).

(2) Manipulation: 75% alcohol cotton balls were used for routine disinfection on the skin of selected points, and 0.45 mm × 40 mm filiform needles (Huangiu brand, batch number: 130419) were adopted for needling the skin rapidly via vibrating needle method. Upper EX-HN3: transverse insertion was conducted from 1 cun above EX-HN3 to the nasion with a depth of 1 cun, GV 20: insertion with a depth of 1 cun at 30° from the skin along the governor vessel from the front to the back. Penetration needling from LI 4 to PC 8: the needle was inserted at the midpoint in the radial side of the 2nd phalanx with a depth of 1 cun along the direction of PC 8, the patients might have a strong sense of soreness which radiated to the five fingers. Penetration needling from HT 7 to PC 6: the needle was inserted from HT 7 to PC 6 with a depth of 1 cun, and the patients might have a sense of soreness which radiated to the periphery. Penetration needling from LR 3 to KI 1: the needle was inserted at the anterior margins of the base junctions of 1st and 2 nd metatarsal bones to KI 1 with a depth of 1.5 cun. Penetration needling from KI 6 to KI 4: the needle was inserted at the depression under the prominence of the lateral malleolus to KI 4 with a depth of 1 cun. Perpendicular insertion was carried out at KI 3, SP 6 and KI 5 with a depth of 0.8 cun, respectively. Lifting and thrusting and twirling method was adopted at the above-mentioned acupoints for 10 seconds to the extent that the patients have a strong needling sensation.

(3) Electroacupuncture: the positive and negative electrodes of *Hwato* brand G6805 electroacupuncture device was connected to the ipsilateral LI 4 and HT 7, LR 3 and SP 6, and discontinuous and rarefaction wave with a frequency of 20 Hz was adopted to the extent that the patients can tolerate, the needles were retained for 30 min, the acupoints without electroacupuncture therapy were needled by applying lifting and thrusting and twirling method for 10 seconds every 10 min, and irradiation with conventional infrared lamp was performed on the feet. The treatment was conducted for 3 times a week, and treatment for 6 times was 1 course of treatment, 3 days were free of treatment before next course, and the efficacy was evaluated after 2 courses.

## Sliding-cupping on the back

After acupuncture treatment, the patient was asked in prone position. Scraping oil was smeared on the acupoints of governor vessel (under the spinous process of the first to the twelfth thoracic vertebrae) and bladder meridian (the first to the twelfth thoracic vertebrae), and sliding-cupping was carried out on the above-mentioned acupoints for 3 min (sliding-cupping was not suitable for the place with skin damage, neoplasm, and etc.) to the extent that the skin was flushing. The treatment was conducted for 2 times a week, and treatment for 4 times was 1 course of treatment, 3 days were free of treatment before next course, and the efficacy was evaluated after 2 courses.

All the patients were asked to stop taking hypnotics and anti-anxiety and depression medications during the treatment. The patients were asked to keep regular schedule and light diet, and avoid staying up late, drinking and overwork.

# **EFFICACY OBSERVATION**

# **Efficacy evaluation**

Efficacy evaluation criteria were established by reference to *Guidelines of Clinical Research on Chinese New Herbal Medicine (Trial)*<sup>[12]</sup>. Cured: sleep time returned to normal or the sleep time at night was above 6 h, with deep sleep, and sufficient vigor after awakening. Markedly effective: the sleep quality was improved obviously with increasing sleep time of more than 3 h, and increased depth of sleep. Effective: the insomnia symptom was alleviated, but with the increasing sleep time of not more than 3 h. Ineffective: the insomnia symptom was not alleviated obviously, or even aggravated.

## RESULTS

Among the 32 patients, cured: 11 cases (34%), markedly effective: 16 cases (50%), effective: 4 cases (13%), ineffective: 1 case. The total effective rate was up to 97%. There was no relapse during two months after the treatment.

### TYPICAL CASE

The patient WU, female, 56 years old, Chinese-American, visited our hospital on July 17, 2016. Chief complaint: difficulty falling asleep for 3 years and exacerbation for 1 month. Medical history: the patient suffered from difficulty falling asleep 3 years ago without clear reason, and she slept for 3 hours or so a day. The local family doctor had advised her to take diazepam, but the symptoms relapsed. She accepted

acupuncture therapy in the local acupuncture clinic one year ago, but the effect was not obvious. The patient's symptoms aggravated 1 months ago, and she slept only for 1 hour a day. According to introduction by friends, the patient returned home to our hospital for treatment. Current symptoms: difficulty falling asleep, profuse dreaming, slept only for about 1 hour a day, asthenia, poor mental status, irascibility, normal defecation, red tongue, slightly yellow coating, wiry and rapid pulse. Western medicine diagnosis: insomnia. TCM diagnosis: insomnia in the type of liver fire invading the heart, and soothing the liver and draining fire, tranquilizing the heart and calming the mind should be focused. Treatment method: excitement transfer therapy. ① Acupoint selection: LI 4, PC 8, HT 7, PC 6, LR 3, KI 1, SP 6, KI 3, KI 6 and KI 4. 2 Needling method: needling the acupoints rapidly via vibrating needle method. The needles were inserted at LI 4 to PC 8 with a depth of 1 cun, at HT 7 to PC 6 with a depth of 1 cun, at LR 3 to KI 1 with a depth of 1.5 cun, and at KI 6 to KI 4 with a depth of 1 cun. Perpendicular insertion was carried out at SP 6 and KI 3 with a depth of 1 cun, respectively. Lifting and thrusting and twirling method was adopted at the acupoints for 10 seconds to the extent that the patients have a strong sore and swollen sensation. Electroacupuncture device, with the discontinuous and rarefaction wave (with a frequency of 20 Hz), was adopted, positive and negative electrodes were connected to the ipsilateral LI 4 and PC 6, LR 3 and KI 3, and the needles were retained for 30 min, irradiation with conventional infrared lamp was performed on the feet, and the treatment was conducted for 2 times a week. After the acupuncture treatment, sliding-cupping was conducted on the first lateral lines of governor vessel and bladder meridian on the back for 3 min to the extent that the skin was flushing. The treatment was conducted for 2 times a week. The patients were asked to stop taking hypnotics and anti-anxiety and depression medications during the treatment, keep regular schedule and light diet, and avoid staying up late, drinking and overwork. Therapeutic effect: the patient's symptoms were not alleviated obviously after acupuncture and cupping for the first time, after the second time acupuncture, she felt soreness and weakness, the symptoms were improved markedly, and the sleep time extended to 3 hours. When the patient visited our hospital for the 3rd time, she was in good spirit, after acupuncture and cupping, her sleep time extended to 5 hours. Acupuncture was continuously carried out for 4 weeks, and insomnia was not found during follow-up visit for 3 months.

## **DISCUSSION**

Insomnia is one of the common diseases clinically. Although it is not a critical disease, it can aggravate or induce vertigo, headache, stroke and other diseases. Many doctors have different emphases and points of view on the pathogenesis of insomnia, but most of them believe that the pathological change is *yin-yang* disharmony<sup>[13]</sup>. It was said in *Lingshū* (《灵林》, *The Miraculous Pivot*) that "wei qi cannot enter into yin, so people cannot close their eyes to sleep." Therefore, when pathogenic factors force wei qi to remain in yang at night, people may be still in a state of excitement with exuberance of yang with decline of yin, so they suffer from insomnia.

Mental workers have more mental work with less limb activity during the daytime, and the excitement may stay in the mind until the night, so insomnia is easily induced. Manual workers have more limb activities with the excitement dispersing in the limbs, so they can sleep naturally at night. In this study, acupoints were selected around the wrist and ankle, and sliding-cupping was carried out on the back, which can transfer the excitement from the brain to the limbs, chest and back, thus alleviating the symptoms of insomnia.

HT 7 is a yuan-source point of heart meridian, and PC 6 is a luo-connecting point of pericardium meridian, penetration needling from HT 7 to PC 6 can drain the heart fire, and tranquilize the heart and calm the mind. LI 4 and LR 3 are the representatives of *yuan*-source point of *yin* meridian and *yang* meridian, respectively, and the combination use of the two points can better regulate yin-yang balance. PC 8 and KI 1 belong to pericardium meridian and kidney meridian, respectively, penetration needling from LI 4 to PC 8, and from LR 3 to KI 1 can strengthen stimulus on the basis of regulating *yin-yang* balance. Furthermore, penetration needling from LR 3 to KI 1 can also supplement kidney water, activate and harmonize qi movement, and enrich yin and supplement body fluid. Penetration needling from HT 7 to PC 6 combined with penetration needling from LR 3 to KI 1 is the method of draining the south and supplementing the north which can drain the heart fire and supplement kidney water. KI 6 is an eight confluence point connecting to yin heel vessel, yin heel vessel governs the opening and closing of the eyes, and can be used for treating insomnia<sup>[14]</sup>. SP 6 is an intersecting point of three yin meridians of the foot, which can enrich *yin* and subdue *yang* in order to consolidate *yin*<sup>[15]</sup>. KI 5 and KI 3 are the cleft point and yuan-source point

of kidney meridian, respectively, which can be used for enriching kidney and supplementing vin, thus cluster needling therapy was adopted for penetration needling from KI 6 to KI 4, SP 6, KI 5 and KI 3, which can strengthen stimulus and concentrate the excitement in the ankle. Brain is the house of original spirit, governor vessel enters into the brain collaterals, so GV 20 and upper EX-HN3 can be selected for regulating the emotion [16]. Foot-taiyang bladder meridian is the great yang of the whole body, and is the meridian with the most connections with zangfu organs in the twelve meridians. Qi of all the meridians can infuse into the foot-taivang bladder meridian which is the core of meridians and collaterals system<sup>[14]</sup>. Governor vessel is the sea of *yang* vessel, so sliding-cupping is conducted at governor vessel and bladder meridian on the back which can fully regulate *yin-yang* of *zang-fu* organs, and transfer the excitement to the back through strong stimulus on the skin.

To sum up, excitement transfer therapy can transfer the abnormal excitement to the limbs and back, effectively alleviate the symptoms of insomnia. With no side effect and definite curative effect, this method is worthy of clinical promotion.

# REFERENCES

- [1] Zhai Y. Drug therapy of insomnia. J Huaihai Med (Chin) 2016; 33(01): 126–128.
- [2] Lu YH, Wu CZ. Observation of clinical efficacy of acupuncture at "five spirits acupoint" for treatment of insomnia. World J Acup-Mox 2016;25(3): 14–16+30.
- [3] Gao XY, Xu CX, Chen XW, Wang PY, Gao L, Ren S. Clinical study of acupuncture at back-shu point for treatment of insomnia. World J Acup-Mox 2014; 23(2): 36-41.
- [4] Wu X, Hu H, Xing J, Zhou M, Xie ZY. Effect of picking therapy at Shēnmài (申脉 BL 62) and Zhàohǎi (照海 KI 6) on the awakening function in the daytime of patients with chronic insomnia: Randomized controlled trial. World J Acup-Mox 2014; 23(4): 1-5+23.
- [5] Zhao K. Acupuncture for the treatment of insomnia. Int Rev Neurobiol 2013; 111(111): 217–34.
- [6] Wang YH. Practical TCM Psychiatry. Beijing: People's Medical Publishing House; 2000: 89.
- [7] State Administration of Traditional Chinese Medicine of the People's Republic of China. Criteria of Diagnosis and Therapeutic Effect of Diseases and Syndromes in Traditional Chinese Medicine. Nanjing: Nanjing University Press; 1994: 234–235.
- [8] Chen DY, He SC, Zhou DY. Meta analysis of acupuncture treatment of insomnia. J New Chin Med (Chin) 2015; 47 (6): 290–293.

(Turn to page 72)

on the premise of close observation.

### REFERENCES

[1] Xing T. Efficacy observation of Chinese herbs combined with acupuncture-moxibustion for treatment of 80 cases of acute simple appendicitis. J Zhejiang Chin Med Univ

- (Chin) 2012; 36(3): 315-316.
- [2] Wang B. General Practice of Diagnosis and Treatment of Surgery and general surgery. Beijing: China Medical Science Press; 2013: 154.
- [3] Bao SY. Preliminary discussion on the mechanism of acupuncture-moxibustion for treatment of appendicitis. J Tradit Chin Med (Chin) 1960; 76(04): 61.

#### ABSTRACT IN CHINESE

[摘 要] 目的:探讨急性单纯性阑尾炎采用经络痛点注射法的疗效及机理。方法:多年来对68例急性单纯性阑尾炎在足三里穴旁痛点注射(0.9氯化纳2-4 mL即刻注射,隔4-6 h再注射一次,以后视病情轻重,每天2-3次,两天后每天注射一次,直至腹部痛消)。结果:穴位注射5-7次后,治愈56例(82%),8例病情缓解(12%,包括4例慢性阑尾炎急性发作),无效4例(6%),总有效率96%。平均1/2-1 h腹痛减轻,8-12 h腹痛明显缓解;24-48 h压痛、反跳痛明显减轻并逐渐消失,平均住院4-5天出院。结论:经络痛点注射法治疗急性单纯性阑尾炎,通过局部强烈持续酸胀感刺激替代针刺治疗,能迅速减轻腹痛症状,并逐渐缓解腹部体征,达到治愈目的。

[关键词] 急性单纯性阑尾炎 穴位注射 经络痛点

## (Continue from page 68)

- [9] Wang YD, Yang Q, Yang ZB, Peng Y, Ma FQ, Chen JL, et al. Depressive disorder cases. Zhongguo Zhenjiu (Chin) 2015; 35(7): 656.
- [10] Wu CH. Cases of clinical application of Sānyīnjiāo (三阴 交 SP 6). Chin Naturop (Chin) 2011; 19(2): 21.
- [11] Tian MR, Wang X, Zhang HY, Liu GF. Ear point application combined with sliding-cupping on the back for treatment of 34 cases of chronic fatigue syndrome. Chin J Tradit Med Sci Technol (Chin) 2015; 22(4): 459.

### ABSTRACT IN CHINESE

[摘 要] 目的:观察兴奋点转移疗法治疗失眠的临床疗效。方法:根据纳入标准,于2016年5月至10月在厦大医院中山附属演武分院国医堂确诊并纳入32例失眠患者。所有患者采用兴奋转移法进行治疗,即丛针疗法透刺腕、踝部穴位并结合背部督脉、膀胱经走罐。所有受试者均接受治疗3次/周,6次为1疗程。治疗2个疗程后观察疗效,并在治疗后对患者进行为期两个月的随访。结果:治愈11例(34%),显效16例(50%),有效4例(13%),无效1例,总有效率达97%。两个月内无复发病情。结论:兴奋点转移疗法治疗失眠疗效显著,值得临床推广。

[关键词] 兴奋点转移疗法 失眠 疗效