

Treatment of Yang deficiency insomnia with depressive state by adding Gui Gan Long Mu Tang

Jinming Ji^{1,a}, Ling Zhang^{2,b,*}, Yalan Yu^{2,c}

¹Shaanxi University of Chinese Medicine, Xiayang, Shaanxi, 712000, China

²Xi'an Traditional Chinese Medicine Encephalopathy Hospital Affiliated to Shaanxi University of Chinese Medicine, Xi'an, 710000, China

^a742105126@qq.com, ^b229524305@qq.com, ^c393773346@qq.com

*Corresponding author

Keywords: Depression; sleeplessness; Yang deficiency; etiology

Abstract: [Objective]: To analyze the etiology, pathogenesis and clinical diagnosis and treatment thinking of insomnia and depressive state from the perspective of yang deficiency. [Methods] From the basic theory of TCM, ancient classics of TCM, and modern literature, combined with our knowledge and clinical experience, we discussed the theoretical and therapeutic aspects of Gui Gan Long Mu Tang in the treatment of Yang deficiency insomnia with depressive state, and cited a typical case to support.[Results]: Yang deficiency type depression and sleeplessness are both clinical manifestations of a school of yin, and both are external manifestations of Yang Qi deficiency or Yang Qi malfunction. Yang qi is more deficient and yang qi is more depressed, therefore the occurrence of yang deficiency depression and sleeplessness is closely related to yang qi malfunction, mostly due to yang qi deficiency, warming failure or yang qi depression and unfavorable cardinality. Gui Gan Long Mu Tang can warm Yang Qi and dispel Yang Qi, which has the characteristics of combining movement and static, balancing Yin and Yang, and being rigid and flexible. Thus, the body's yang qi can be raised, yin qi can be submerged, and qi can rise and fall normally, thus achieving a state of yin and yang secrecy. The clinical efficacy is precise. [Conclusion] Gui Gan Long Mu Tang has unique advantages in the treatment of Yang deficiency insomnia with depressive state, which can significantly improve the clinical efficacy and is worth studying and researching.

1. Introduction

Insomnia, also known as insomnia, sleep disorders, etc, refers to a subjective experience that is still unsatisfied with sleep time or quality under suitable sleep conditions and environment, and affects daytime social functioning. The main clinical manifestations are: difficulty falling asleep, sleep maintenance disorders (more than 2 awakenings throughout the night), early awakening, decreased sleep quality, decreased total sleep time (usually < 6.5 hours), accompanied by daytime dysfunction. Daytime dysfunction caused by insomnia mainly includes fatigue, irritability, and physical discomfort ^[1]. Yuzheng is the depression referred to by Western medicine, also known as depressive disorder. Belongs to the category of affective disorders in psychosis. The patient spends

most of the time in a negative state physically and mentally. The clinical manifestations are mainly depression, or sometimes irritable, sometimes depressed, or persistent low mood, or chest and hypochondrium pain, or insomnia, unresponsiveness, etc. Sometimes with cognitive dysfunction and somatic symptoms. In severe cases, self-harm and suicide may occur.

2. The relationship between insomnia and depression

Sleep disturbances are a common problem in the general population. About 1/3 of the world's population is reported to have symptoms of insomnia. In addition to the pain inherent in insomnia itself, patients with insomnia will also bring many related diseases due to insomnia, causing many other pains. A growing body of research suggests that insomnia is linked to a range of other negative physical and mental health problems, including cardiovascular system disorders, depression and suicide. In patients with insomnia, their depressive state will worsen as insomnia worsens. In the past, insomnia and depression were not two-way relationships and use insomnia as a symptom of depression. However, Zhang Jihui et al. found that the occurrence of depression and insomnia is independent of each other, and there is a two-way relationship between the two ^[2]. Depression can predict the occurrence of insomnia, which is a risk factor for depression. Patients with insomnia have a much higher incidence of depression than non-insomnia patients, and depression is one of the causes of insomnia, and insomnia is a risk factor for the onset, exacerbation and recurrence of depression ^[3]. This may be because depression and insomnia have the same pathological mechanism, such as monoamine transmitter changes, neuroplastic damage, neuroendocrine dysfunction, etc. The pathological mechanism of insomnia and depression is closely related to multiple systems such as nerves, immunity, and neuroendocrine, and the factors interact with each other.

3. The etiology of yang deficiency insomnia with depressive state

3.1 The etiology and pathogenesis of yang deficiency insomnia

Jing Yue once said: "Yang is not enough." That is to say, the human body yang is often insufficient. Zheng Qin'an pointed out in the "Medical Law Yuantong": "Those who do not lie down and cause internal injuries are deficient in Qi from Su Bingyang, and cannot enlighten the true water to rise to the heart due to kidney and yang failure..." ^[4] Zhongjing's typhoid fever theory also talks throughout the article that the human body is sick because of wind, cold and other evil damage to the healthy qi, and the lack of righteous qi leads to the disease, and if the righteous qi exists inside, the evil cannot be done. The main causes of yang deficiency: or old age and physical decline, or attacked by evil, now people in society have diversified lifestyles, and the causes of yang deficiency are becoming more and more diverse. Or irregular work and rest, day and night reversed, or long-term busy work, physical and mental exhaustion, long-term yang energy consumption, or craving raw and cold, eating and drinking, or paying attention to fashion, exposed clothing lists, and neglecting exercise. Or have indiscriminate intercourse, or be ill and weak for a long time. These will cause a lack of yang. Therefore, although there are many causes of yang deficiency, they are mainly classified into two categories, congenital insufficiency and acquired denourishment ^[5]. "Yin and Yang should be like the great treatise" said: "Yin is within, and Yang is also guarded." The yang is outside, and the yin is also. "Yang Qi is outside during the day, and Yin Qi is inside, then it is awake during the day, and the human body carries out normal work and life. At night, yang enters yin, yin and yang merge, and the human body sleeps peacefully. If the yang cannot enter the yin at night, the yin and yang are out of harmony, the yin qi remains inside alone, and the yang qi is alone outside, resulting in the human body not sleeping ^[6]. The true legend of medical theory is that "the

yang qi is too weak, the yin qi is prosperous, and it is bound to be violated." "Yang is insufficient, yang does not control yin, yang deficiency yin hyper, yin and yang imbalance, yin bias hyper, yang can not resist yin, yin and yang imbalance, grid yang outside, yin and yang cannot intersect, then do not sleep." Moreover, if the yang is deficient, the yin and yang do not intersect, and the yang cannot enter the yin, it will lead to the virtual yang going up, disturbing the mind, and the mind will be restless, and then insomnia^[7].

3.2 Analyze the etiology and pathogenesis of depression from the yang deficiency

Clinically, most of them treat depression from the internal organs. Liver depression often appears with symptoms such as flank swelling pain, stomach pain, and tinnitus due to liver loss; Depression often appears with symptoms such as upset, chest and back swelling, and abnormal consciousness; Spleen depression often appears abdominal distension, bowel sound, diarrhea, body heaviness and other symptoms; Pulmonary depression often appears cough, breath reversal, chest tightness, vomiting and other symptoms; Kidney depression often presents with symptoms such as kidney deficiency and cold abdomen, low back pain, cold limbs, and muscle and pulse spasm^[8]. Mu Yu Dazhi, from the liver and gallbladder to treat insomnia is to relieve the liver and relieve depression, fire is depressed, from the heart to treat is to diverge the heart fire, spleen depression is reached, from the spleen and yang cold. Most think that they are hurt by the seven emotions. It is divided into liver qi depression, qi depression and fire, phlegm and qi depression, mental denourishment, heart and spleen deficiency and other types^[9] However, Zhang Jiebin said in the "Treatise on the Great Treasure of the Analogous Scriptures": "The great treasure of heaven is only this pill of red sun, and the great treasure of man is only this breath of true yang."^[10] That is to say, the most precious thing in heaven is this red sun, and the most precious thing in man is this breath of true yang. Therefore, yang is the foundation of human beings, and yang is to the human body what the sun is to all things. Only when the sun shines on all things, can all things be vibrant, the yang is sufficient, the whole body is warm, and the human body can be healthy. And the "Yellow Emperor's Inner Canon" cloud "Yin and Yang, the way of heaven and earth, the rule of all things, the parent of change, the origin of life and death, the house of the gods, the cure must seek the root."^[11] The Suwen says: "Where yin and yang are essential, yang is secret, spirit is the cure, yin and yang are separated, and the spirit is absolute." "It shows that the treatment of diseases is divided into yin and yang, the balance of yin and yang is healthy, and the imbalance of yin and yang is full of diseases. Among the two, yin and yang, yang is honored and yin is humble^[12]. The weakness of the yang qi appears a gloomy and cold image. Such as fatigue, chills, fatigue, lethargy, unresponsiveness, etc. And Yu Zheng is mainly based on continuous low mood, Yang is active, and Yin is quiet. The depressed evidence is negative. Therefore, the treatment of Yu Zheng should be Fuyang^[13]. Yu is also stagnant, and Yu Zheng will also be because the body's qi is stagnant, Yang Qi is sluggish, and it cannot be crossed, making the body cardinal. Yang is active, once Yang Qi is depressed, Yang Qi cannot be Buda. If the body does not get warmth, there will also be negative, inhibited, and obscure signs^[14]. Therefore, Yu Zheng should be based on Yang Void, and the seven emotions and depressions should be the target. Impotence deficiency is a common related pathological basis for depression accompanied by common symptoms such as anxiety, irritability, fatigue, insomnia, etc. Therefore, when treating, on the basis of protecting Yang Qi, it should invigorate Yang Qi. Clinically, insomnia and depression often occur at the same time or with the disease, or due to severe insomnia, the body and mind cannot be recuperated, the body and mind are disturbed, and gradually lead to depression. Or first appear depressed and anxious, gradually begin insomnia, the heavier the insomnia, the heavier the depression, and vice versa. With the passage of disease, the loss of yang qi cannot be restored, and the yang deficiency becomes more and more serious,

resulting in a vicious circle ^[15].

Therefore, for such patients, it is very symptomatic to add and subtract the combination of laurel licorice keel oyster soup with warm yang depressant or xuanyang kaiyu. Good clinical results.

4. Efficacy of Gui Gan Long Mu Tang

Guizhi licorice keel oyster soup comes from "Typhoid Fever, Identifying the Pulse of Sun Disease and Treating the Sixth": "If the fire is reversed, those who are irritable because of the burning needle, the guizhi licorice keel oyster soup is the master." It means that after smoking with fire and burning needles, the body's fluid is consumed, the heart yang is damaged, and symptoms such as irritability appear. Raw keel, raw oysters focus on calming the gods, diving into the yang of hyper, guizhi xinwen, warm tong xin yang, and at the same time with licorice, to help the neutralization of the qi of the continent, so as to move and yin, quiet with the latent yang, movement and silence, and the gods are at ease, so that the body is peaceful and yang. This is the fundamental balance of yin and yang^[16].Clinically, it is commonly used to treat palpitations, insomnia, chest tightness, irritability and other symptoms caused by yang deficiency. Aconite is added to increase the power of warming the yang. Add ginseng to help replenish qi. Add Schisandra, sour jujube kernels, and Fushen to nourish the mind and calm the mind ^[17].Guiganlong oyster soup is mostly used clinically for the treatment of myocardial yang deficiency insomnia, and there is less literature on its treatment of depression in CNKI. However, Yu Zheng should take the defense of yin and yang first, and for the yang deficiency type Yu Zheng, Gui Gan Long Oyster Soup can supplement Yang and Xuan Yang, and has the characteristics of combining dynamic and static, yin and yang balance, and rigidity and softness. So that the human body's yang qi rises, the yin qi dives down, and the qi machine rises and falls normally, so as to achieve a state of yin and yang peace ^[18]. Clinical addition and subtraction dialectical treatment of insomnia and depression often has unexpected good results.

5. Classic case

Li, male, 18 years old, freshman, came to the clinic in November 2021, complained of severe insomnia for nearly 2 years due to excessive pressure in the college entrance examination, and his symptoms were relieved after going to school. But it is still very serious, during the college entrance examination, often study until about 11:30 at night, difficulty falling asleep, about 1:30 to fall asleep, dreamy easy to wake up, wake up with a slight sound, wake up and then fall asleep difficult, sleep every night for about 4 hours, increasingly extremely tired, dizzy, poor memory, cold limbs, waist pain, good breath, palpitations, dizziness, feeling depressed, low mood, slow response, sticky stool, light tongue, white moss, fine pulse. Traditional Chinese medicine diagnosis: sleepless disease and depression, dialectical type is spleen and kidney yang deficiency. Treat the spleen and kidneys with warmth, and calm the spirit. Fang Ji Gui Ganlong Oyster Soup with flavor. Prescription: 15 g of cinnamon, 30 g of raw keel, 30 g of raw oysters, 30 g of seared licorice, 15 g of fried jujube kernels, 15 g of poria, 10 g of aconite, 6 g of cinnamon, 30 g of kudzu, 15 g of salt dodder seed, 10 g of tangerine peel. Fried in water, 1 dose per day, a total of 10 payments.

Second diagnosis: difficulty in falling asleep improved, easy to wake up at night reduced, wake up 1~2 times a night, sleep for 5 h a night, emotional irritability, depression relief, the number of palpitation attacks decreased, waist soreness improved, stool did not form, dark red tongue moss white moist, fine pulse. The remaining symptoms are the same as before. Following the above kadanshen 10 g, white art 10 g, magnet 20g, enhance the effect of submersible calming and calming, strengthen the spleen and regulate luck, activate blood circulation and remove stasis, and then prescribe 10 payments.

Three diagnosis: sleep condition is better than before, dreams are better at night, sleep can sleep for more than 6 hours a night, head grogginess disappears, mood is more stable than before, fear of cold, cold hands and feet are significantly better than before, abdominal distension improves after eating, and two bowel movements are adjusted. Check: The tongue is light red and moss is thin and white, the pulse is fine, the symptoms are greatly reduced, and the following 10 payments consolidate the curative effect.

Note: The human body depends on the excitation of yang qi to exert normal functions, and the function of the internal organs depends on the warmth of yang qi to make the qi machine unimpeded; If the yang qi is insufficient, it cannot be warmed and qi can be dissolved, and the function of the internal organs is lost, the patient will be tired and fatigued, cold limbs, and sore waist ^[19]. This shows that the yang is insufficient and the kidney yang is deficient. Sufficient Yang Qi can operate normally Qi and blood, warm Yin essence and muscles, meridians, tendons, etc., so that the actions of the human body can be coordinated and unified. If the yang qi is insufficient, the qi, blood, jinjin and liquid yin essence cannot be operated, and the human body function is inhibited, which is reflected in the outside of the body, then it will be weak and lazy, and the ability will be reduced. If the yang does not enter the yin, the false yang will go up, disturbing the mind, so that the heart will be palpitating, awake from time to time, impatient, panic and fear. At the same time, insufficient yang, can not be excited, can easily lead to stagnation of qi, neglect of the division, will cause depression, sadness and crying, loss or loss of interest, chest tightness and swelling pain and other symptoms ^[20]; In addition, yang deficiency can not regulate the qi machine, the upper can not help the heart and lungs to flow qi and blood, the middle can not help the spleen and stomach to carry essence, and the lower can not loosen the three jiao, bladder waterway, which will lead to forgetfulness, insomnia, palpitations, indigestion, and foreign body sensation in the throat ^[21]. Kidney yang deficiency leads to spleen and yang deficiency, which makes the function of transporting water valley and water fluid, abnormal water metabolism, internal arrest of qi machine, sticky stool, white tongue is the manifestation of spleen deficiency and wet resistance. Yang deficiency for a long time, blood veins lost to warmth, coupled with moisture resistance, can cause poor blood flow, so the tongue is dark red. Fangzhong guizhi dose is small, will not help yang heat, open yin qi and yang, raw oysters, raw keel to calm the spirit, dive hyper yang to yin, so as to balance yin and yang, this is the cure of the root cause, licorice licorice eases the middle, invigorates qi and nourishes the blood, so that the upper and lower yin and yang qi is handed over to the medium focus. And reconcile medicines. Aconite, cinnamon, salt dodder seed tonify the kidney and help yang; A little Kudzu root to enhance the yang qi, so that it spreads the limbs to perform the work of warming, and at the same time matches the poria to play the function of strengthening the spleen, promoting moisture and stopping diarrhea; Fried sour jujube kernels can eliminate irritability, stop palpitations, and calm the mind; Tangerine peel can also regulate emotions. The combination of various medicines, warming the void and yang, and subtly calming the floating yang, so that the yin and yang intersect, insomnia is cured, and the depressive state is also relieved.

6. Conclusion

With the acceleration of society and the pace of life, people's stress is increasing, insomnia, anxiety, depression are becoming more and more common in our lives, causing serious troubles to people's lives and work, not only causing judgment loss, thinking ability degradation, memory loss, anxiety, depression and other emotional disorders, but also inducing many related diseases such as hypertension, heart disease ^[22], severe cases will also lead to disability, death, and damage to the prosperity and stable development of society and economy. Unspeakable grief and unbearable burden on patients and loved ones ^[23]. Clinically, Western medicine is mainly used to treat insomnia

and depression, and the clinical efficacy is indeed accurate, but the toxic side effects are also obvious. This can also be daunting for some patients. As a great traditional medicine in China, traditional Chinese medicine has relatively few adverse reactions, which has attracted more and more researchers and brought hope to many patients with insomnia and depression in the clinic ^[24]. Most of the diseases have a long course of disease, in addition to dialectical treatment, it is also necessary to pay attention to psychological counseling to help patients build confidence in overcoming the disease, so as to relax their mood, strengthen their beliefs, and adjust their body and mind in order to achieve more satisfactory efficacy ^[25].

Acknowledgements

Fund: Qin Chuangyuan Traditional Chinese Medicine Innovation Research and Development Project, project number: 2202-QCYZH-009.

References

- [1] Lv Hong, Zhao Lingxiao, Yan Yongmei. Research progress in the diagnosis and treatment of insomnia with anxiety and depression disorder in traditional Chinese medicine [J]. *Journal of Liaoning University of Chinese Medicine*, 2022, 24(06): 101-105.
- [2] Zhang Jihui, Liu Yaping, Pan Jiyang. Research progress and existing problems in the relationship between insomnia and depression, 2008-2013 [J]. *Chinese Journal of Mental Health*, 2015, 29(02): 81-86.
- [3] Diao Yajing, Zhong Hua, Xiang Hongjie, et al. Treatment of insomnia from "yang does not enter yin" [J]. *Journal of Traditional Chinese Medicine*, 2021, 36(05): 948-951.
- [4] Li Y, Wu H, Zhang B, et al. Efficacy and safety of Linggui Zhugan decoction in the treatment of chronic heart failure with Yang deficiency: A protocol for systematic review and meta-analysis [J]. *Medicine*, 2021, 100(20):e26012.
- [5] Ji Ke, Liu Ling, Liu Ru, et al. Discussion on the relationship between sleep quality and depression of college students with yang deficiency constitution based on structural equation model [J]. *World Science and Technology-Modernization of Traditional Chinese Medicine*, 2021, 23(05): 1362-1367.
- [6] Wang Jianhua. Insomnia from the theory of yin and yang balance [J]. *Henan Journal of Traditional Chinese Medicine*, 2020, 40(05): 688-690.
- [7] Zhang Shaoting. Depression with insomnia, traditional Chinese medicine constitution, Eysenck personality and correlation study [D]. *Beijing University of Chinese Medicine*, 2020.
- [8] Yang Furong, Chen Jiayu, Zou Xiaojuan, et al. Analysis of the relationship between five internal organs and yang deficiency and depression based on Fuyang thought of "Typhoid Miscellaneous Diseases" [J]. *Chinese Journal of Traditional Chinese Medicine*, 2021, 36(02): 993-996.
- [9] Fu Shengkang, Li Dan, Ren Lu. Re-discussion on the relationship between "Yu Zheng" and Yang deficiency [J]. *Chinese Journal of Basic Medicine of Traditional Chinese Medicine*, 2013, 19(12): 1388-1389.
- [10] Wang Jincheng, YAO Xinying, GUO Xiaoxia, et al. Appreciation of the case of professor from yang deficiency on the treatment of anxiety disorder [J]. *Guangming Traditional Chinese Medicine*, 2014, 29(04): 700-701.
- [11] Yang F, Liu G, Na Z U, et al. Cause, Pathogenesis and Treatment of Insomnia of Yang Deficiency Pattern [J]. *Journal of Traditional Chinese Medicine*, 2018.
- [12] Xiang Junjun, LAI Jingjing, YE Donghua, GAN Yexian, HU Yueqiang. Professor Hu Yueqiang talks about the "secondary" treatment of insomnia from the ontological structure of yin and yang [J]. *New Chinese Medicine*, 2016, 48(02): 180-181. DOI: 10.13457/j.cnki.jncm.2016.02.069.
- [13] Zhang Lidan, GU Shisong. Theoretical discussion on the treatment of depression by Fuyang thought [J]. *Shanxi Journal of Traditional Chinese Medicine*, 2017, 33(10): 1-2+31.
- [14] Bai Jiulian, Ma Tianmu, Min Min, Wang Yongsheng, Fu Weimin. *Journal of Zhejiang University of Traditional Chinese Medicine*, 2018, 42(11): 934-936+956. DOI: 10.16466/j.issn1005-5509.2018.11.014.
- [15] Ren Jing, Jiang Min. Theoretical discussion on depression and yang deficiency constitution [J]. *Clinical Journal of Modern Traditional Chinese Medicine*, 2019, 26(05): 56-60.
- [16] Cai Qinghao. Study on the treatment law of insomnia with Gui Ganlong oyster formula [D]. *Guangzhou University of Chinese Medicine*, 2014.
- [17] Wu Linsheng, Su Simin. Efficacy of flavored cinnamon licorice keel oyster soup in the treatment of insomnia in the elderly [J]. *New Chinese Medicine*, 2016, 48(07): 45-46.
- [18] Zheng Pan. Clinical study on the treatment of yang deficiency insomnia in the elderly with flavor of guizhi licorice

- keel oyster soup [D]. Guangxi University of Chinese Medicine, 2018.
- [19] Yang Mingzhu. Exploring the distribution of factors in insomnia with depression and anxiety [D]. Beijing University of Chinese Medicine, 2019.
- [20] Wu Jizhou. Theoretical and clinical research on the treatment of depression and insomnia with chaihujia keel oyster soup [D]. Nanjing University of Chinese Medicine, 2021.
- [21] Liu Ruijia. Clinical observation of flavored cinnamon licorice keel oyster soup in the treatment of yang deficiency insomnia [D]. Beijing University of Chinese Medicine, 2021.
- [22] Yao Chunling. Study on the effect of anxiety and depression on cognitive function in insomnia patients [D]. Guangxi University of Chinese Medicine, 2020. DOI: 10.27879/d.cnki.ggxzy.2020.000156.
- [23] Zhang Congcong. Comparison of the effect of mirtazapine and duloxetine in the treatment of patients with depression and insomnia [J]. China Minkang Medical Journal, 2022, 34(02): 70-72.
- [24] Jiang Xiaojian, Yu Ying, GAO Ying. Analysis of insomnia and its related psychosocial influencing factors in young and middle-aged population [J]. Practical Preventive Medicine, 2022, 29(02): 242-245.
- [25] Wei Yanan, Liu Zhenhua, Wang Xiaoting. Mechanism of insomnia associated with mild to moderate depression and progress of traditional Chinese medicine intervention [J]. Journal of Southwest Medical University, 2021, 44(03): 292-296.