DOI: 10.53469/jcmp.2024.06(08).32

# On the Application of Zhenwu Decoction in Renal Edema

Xiaoxiao Liu, Ting Lei\*

Shaanxi University of Chinese Medicine, Xianyang 712046, Shaanxi, China \*Correspondence Author

Abstract: This paper aims to explore the application prospect of Zhenwu decoction in renal edema. Methods: Through the review of ancient and modern literature and modern research, the causes and clinical manifestations of renal edema, the composition and effect of adding and decreasing, and the modern research of Zhenwu soup in the treatment of renal edema are discussed. Results: It was found that Zhenwu soup had a better effect on the treatment of renal edema than western medicine, and had little adverse reactions, which could effectively improve the clinical symptoms of patients and the quality of life after recovery. Conclusion: Zhenwu decoction is a very effective method to treat renal edema, with wide application prospect and clinical value.

Keywords: Zhenwu decoction, Renal edema, Treatment effect, Clinical application, Reference prospect.

#### 1. Introduction

Renal edema is a pathophysiological process due to abnormal kidney function, which involves many aspects such as decreased glomerular filtration rate, tubular reabsorption dysfunction, and renal interstitial edema. Clinically, the main manifestations of renal edema are edema on the face, lower limbs, abdomen and other parts, and complications such as dyspnea and cardiac dysfunction can also occur when the condition is serious. Renal edema will not only reduce the quality of life of patients, but also aggravate the damage of renal function and further worsen the condition. At present, the conventional treatment of renal edema in western medicine is mainly the application of diuretics, angiotensin converting enzyme inhibitors, glucocorticoids and other drugs, these drugs can play a certain effect, but also will bring adverse reactions, such as hypokalemia, hypotension, liver and kidney function damage [1]. Therefore, in order to effectively treat renal edema, alleviate the disease, and reduce the occurrence of adverse drug reactions, TCM prescription has been widely used in clinical treatment. Zhenwu soup addition and subtraction is a kind of traditional Chinese medicine, including ginseng, red licorice, dried ginger, tyloand other Chinese herbal medicines, which has the function of promoting blood circulation and removing blood stasis, benefiting water and reducing swelling [2]. Several studies have shown that the addition and subtraction of Zhenwu decoction can effectively improve the symptoms of patients with renal edema, such as edema degree, blood pressure, urine volume, etc., and no obvious adverse reactions. Therefore, the addition and subtraction has a broad application prospect and clinical value in the treatment of renal edema. This paper discusses the curative effect of Zhenwu decoction and the future application prospect of renal edema by integrating and analyzing the data.

## 2. Understanding of Renal Oedema in Traditional Chinese Medicine and Western Medicine

2.1 Understanding of Renal Oedema in Traditional Chinese Medicine

The understanding of oedema was first seen in the Huangdi Neijing. According to Huangdi Neijing, renal edema is related to external evil and internal deficiency, which is caused by the invasion of external evil and kidney loss [3]. And put forward the "go to Wan Chen, open the ghost door, clean the house" treatment method." Nan Jing" that renal edema and three jiao, life door related." Three jiao for a body of gas, water in the body of the channel, is the place of gasification, and the gasification of the internal organs and the production of edema is closely related [4]. Zhang Zhongjing in "Synopsis of the Golden Chamber" [5] Water and gas disease is divided into four types, namely feng shui, skin water, positive water, stone water, and for this four types of water and gas disease treatment proposed a general treatment principle, edema site in the waist and below, should be open urine, edema site should be sweating above the waist treatment. "A-B Classic of Acupuncture "[6] believes that the reason for renal edema lies in the renal gas damage caused by overwork, coupled with the invasion of wind evil, and put forward the method of treating renal edema with acupuncture. In the Song Dynasty, we divided edema into Yang water and Yin water, and took the spleen and stomach deficiency and cold as the root cause of edema. On the basis of predecessors, later doctors summarized the causes of edema into two aspects, one is the internal cause of the body, the other is the external cause. The internal reasons are the lung, spleen, kidney three viscera and three jiao for the body regulation of water and fluid dysfunction, external reasons are the external evil invasion of the body, patients with body deficiency and fatigue, eating disorders and so on. The nature of the disease is based on deficiency and excess, this deficiency refers to the lung, spleen, kidney three viscera deficiency, resulting in the loss of body fluid distribution, standard is wind, wet, heat three evil. The basic principles of treatment are sweating, diuresis, and drip and chase water.

ISSN: 2006-2745

#### 2.2 Understanding of Renal Oedema in Western Medicine

In terms of pathophysiology and anatomy of western medicine, decreased glomerular filtration rate, decreased plasma colloidal osmoolality pressure, increased capillary permeability, increased renal tubular reabsorption, and kidney damage caused by other factors will make the body produce different degrees of edema. Patients with renal edema can be

seen in the eyelid and facial edema at the beginning of the disease, with the development of the disease, edema will develop to the ankle, lower limbs, and even affect the whole body, and most of them are bilateral symmetry, serious can be accompanied by the production of abdominal effusion, generally ascites appears first, and then pleural fluid. There are many reasons for the production of edema, edema caused by different reasons is also accompanied by different clinical manifestations, such as acute glomerular kidney inflammatory edema in addition to limb swelling can also have hematuria, mild to moderate proteinuria, transient hypertension and other accompanying symptoms; Acute glomerulonephric inflammatory edema can be accompanied by hematuria, proteinuria, hypertension, oliguria and even anuria; chronic glomerulonephritis can be accompanied by hematuria, proteinuria, hypertension and other manifestations; primary nephrotic syndrome with renal edema with proteinuria, hypoalbuminemia, hyperlipidemia and other conditions [7]. Through the study of renal edema that the mechanism of renal edema is closely related to blood volume, blood volume of low filling and high filling of the two most important aspects.

## 3. Treatment of Renal Edema in Modern Traditional Chinese and Western Medicine

#### 3.1 TCM Treatment

In the study of renal edema, Li Yuxiao et al [8] believed that "urine negative" was the main evidence. For the edema produced by exogenous wind evil in patients with primary nephrotic syndrome, the experimental group treated the control group with the combined solution surface drug. After taking seven doses, they found that the treatment effect of the experimental group was better than that of the control group. The conclusion that as long as it is edema and accompanied by urine adverse symptoms, can use Wuling scattered use treatment. Li Minji et al [9] After continuous observation of spleen and kidney Yang deficiency diabetic nephropathy for a period of time, the symptoms of edema and frequent nocturia in the treatment group were significantly reduced, and they were better than those in the control group. Lu Wen et al. [10] used anti-Astragalus soup to treat patients with intractable edema of nephrotic syndrome. The study found that anti-Astragalus soup has the function to expand the renal blood vessels, increase the glomerular filtration rate, increase urinary sodium excretion, promote water discharge, improve edema, and have high safety.

#### 3.2 Western Medicine Treatment

Modern medicine for renal edema, the current main treatment method is to choose reasonable drugs for treatment. At present, the therapeutic drugs commonly used clinically include diuretics, calcium channel blockers, angiotensin-converting enzyme inhibitors or angiotensin receptor blockers. Studies have shown that the pathogenesis of renal edema lies in the high and low filling state of blood volume, so according to its pathogenesis, Professor Chen proposed three aspects of treatment measures, the first is to judge the state of blood volume, followed by the expansion, and finally in diuretic treatment. Professor Chen stressed that the treatment of renal edema should first make clear the state of the patient's blood volume, low blood volume should first expand, blindly adding

diuretics will cause kidney damage, high blood volume blind expansion will lead to the occurrence of heart failure. Secondly, patients with low blood volume should be expanded, and attention should be paid to the principle when using expansion drugs. The third is to use diuretics reasonably. When using diuretics, we should pay attention to choose whether to use them after expansion according to the state of blood volume. High blood volume and equal blood volume can be used directly, and low blood volume needs to be expanded first. At the same time, we should also pay attention to the adverse reactions produced by the use of diuretics, such as thiazide, hypokalemic hyponatremia, potassium retention, hyperkalemia, permeability can cause acute kidney injury and other [11].

ISSN: 2006-2745

## 4. The Source, Composition and Efficacy of Zhenwu Soup

Zhenwu soup is the basic prescription of Wenyang Lishui. It was first recorded in the reatise on " Febrile and Miscellaneous Disease" written by Zhang Zhongjing, a famous doctor in the Eastern Han Dynasty. The original recipe of Zhenwu soup is composed of five medicines, namely aconite, poria cocos, atractylodes, white peony root and ginger. Fang aconite is jun medicine, aconite medicine heat, can strengthen kidney Yang, fill the fire of the door, so that the water has the main atractylodes and poria cocos can fill qi and spleen, and can benefit water infiltration, with the minister medicine. The same as the medicine, can not only and aconite warm sun and cold, but also can achieve the effect of stomach nausea. Chen Zhiqiang et al. [12] It is believed that the peony is used in Zhenwu soup, which has four aspects: first, the peony acid can prevent the heat of the aconite from hurting Yin; the second, the efficacy of the peony itself can relieve pain; the third, the peony can collect the Yin and relieve tendons, and can help ginger and aconite to solve the "muscle movement" mentioned in the article; fourth, the peony can facilitate urine to use water and gas. In the five flavors of medicine together, diarrhea is tonic, specimens into account, warm does not hurt Yin, collect Yin does not help evil, and played the work of warm Yang and water.

#### 5. Modern Clinical Application of Zhenwu Decoction in the Treatment of Renal Edema

With continuous research, Zhenwu soup, as a representative prescription for the treatment of Yang deficiency and water flood syndrome, is clinically used in the treatment of a variety of kidney diseases. Dong Meiling et al. [13] used solid spleen and He Zhenwu decoction to treat patients with chronic nephritis edema and spleen kidney Yang deficiency. As a result, they found that the patients in the observation group' body edema and cold limbs were significantly improved, with no adverse reactions and high safety, which was far better than the conventional western medicine treatment in the control group. Ye Hang et al. [14] used Yupingfeng Sanhe Zhenwu Decoction to treat refractory nephrotic syndrome, the control group used conventional western medicine treatment, and the research group used Yupingfeng San and Zhenwu Decoction. The results showed that the patients in the study group had relieved clinical symptoms, renal function was improved, and there was no adverse reactions, and the effect was much higher than the conventional western medicine treatment in the control group.

## 6. The Safety and Adverse Reactions of Zhenwu Soup

Zhenwu soup, as a common prescription for the clinical treatment of Yang deficiency water syndrome, has been first recorded in the "theory on typhoid fever" and still used through the modification of successive doctors, and has been widely recognized by doctors. In modern medicine, Zhenwu soup has been widely used in the treatment of diseases such as circulatory system, nervous system, urinary system, endocrine system, respiratory system and other systems, and has achieved relatively satisfactory clinical effect [15]. In the clinical application research of Zhenwu soup by many doctors, it was found that the safety of Zhenwu soup in clinical application reached more than 90%, much higher than the 70% -80% of the conventional western medicine group. At the same time, it was found that taking Zhenwu soup was accompanied by certain adverse reactions, such as digestive tract discomfort, dizziness, nausea, etc., but these symptoms are mild, which can be solved by adjusting the dose or stopping the drug.

#### 7. Discussion

The pathological factors of renal edema are closely related to the internal stagnation of water dampness. The pathogenesis mainly lies in the deficiency of kidney Yang, the loss of gasification, and xuanfu depression. Due to the long duration of renal edema, the Yang qi of the kidney is damaged, so wenli diuretic method is used in clinical practice, and it is the most commonly used prescription [16].

Zhenwu decoction as a traditional Chinese medicine prescription, the study found in the treatment of renal edema has significant clinical curative effect, and diuretics, calcium channel blockers, angiotensin converting enzyme inhibitors compared to conventional western medicine, has less adverse reactions and side effects, and high safety, and can improve other symptoms related to the kidney, more can be used for the treatment of other system diseases, therapeutic effect is relatively stable [17]. However, the proportion of drugs should be carried out in detail when using, and the dosage should be adjusted according to the patient's condition, age and other factors.

In conclusion, Zhenwu decoction has been widely used in clinical practice, although it has some adverse effects and side effects. In the future, the clinical research and efficacy evaluation of Zhenwu soup can be further strengthened, in order to better guide the clinical practice and further improve its efficacy.

#### References

[1] Tian Huayan, Yan Hengyang. Clinical observation of Zhenwu Decoction combined with Benazepril for treating diabetic nephropathy[J]. Guangming Journal of Chinese Medicine, 2022, 37(04):677-679.

[2] Guo Jianhui, Zhou Ying. The application of Zhenwu Soup in diabetic nephropathy [J]. Diabetes New World, 2021, 24(19):194-198.

ISSN: 2006-2745

- [3] Wang Xianning, Zhang Xiaofeng, Cheng Xiaohong, et al.An Analysis of Renal Oedema Based on Literature Research [J].Shaanxi Journal of Traditional Chinese Medicine, 2023, 44(02):220-223.
- [4] Zhang Duo, Huang Kaiyan, Mei Jingyanet al. Clinical experience and applications WANXiaogang on regulating qi movement of Sanjiao in edema treatment [J]. Shaanxi Journal of Traditional Chinese Medicine, 2021, 42(10):1448-1451.
- [5] Fu Lin, Xiang Guangwei, Li Xiaohui. Treatment of Renal Edema based on Syndrome diff erentiation of Six Meridians in the ShanghanLun [J]. Jilin Journal of Chinese Medicine2020, 40(01):48-51+55.
- [6] Zhao Yaodong, Han Douying, Liu Qianget al. A study of the theory on the treatment of acupuncture and moxibustion [J]. Journal of Gansu University of Chinese Medicine, 2016, 33(05):19-21.
- [7] Ge Junbo, Xu Yongjian, and Wang Chen. Internal medicine [M]. Beijing: The People's Health Publishing House.
- [8] Li Yuxiao, Guo Dong. Wuling powder treatment of oedema test case two[J]. Asia-Pacific Traditional Medicine, 2019, 15(01):82-83.
- [9] Li Min-ji, Zhang Shaofen, Pan Zhuowen. Observation on efficacy of addition and subtraction of Jisheng Shenqi pill on diabetic nephropathy of spleen-kidney and yang deficiency type[J]. China Practical Medicine, 2018, 13(14):14-16.
- [10] Lu Wen, Tao Huiling, Sun Chenglin. Effects of Modified Fangji Huangqi Decoction in Patients with Refractory Edema of Nephrotic Syndrome[J]. World Chinese Medicine, 2020, 15(03):411-415.
- [11] Huang Xiaopei, Qiu Shi, Zhu Wenlianget al. Clinical Observation on Xuefu Zhuyu Decoction Combined with Zhenwu Decoction in Treating Chronic Heart Failure (Yang Deficiency and Blood Stasis Type) Complicated with Diuretic Resistance[J]. Guangming Journal of Chinese Medicine, 2021, 36(10):1560-1563.
- [12] Chen Zhiqiang, Zhang Yilin, Hong Jinget al.The efficacy of peony in the classic recipe Zhenwu soup is tested [J] Journal of Basic Chinese Medicine, 2023, 29(01):144-145+159.
- [13] Dong Meiling. Clinical Study on the Treatment of Chronic Nephritis Edema with Spleen-Kidney Yang Deficiency Syndrome with Decoction for Reinforcing the Spleen Combined with Modified True Warrior Decoction[J]. Henan Traditional Chinese Medicine, 2022, 42(10):1552-1556.
- [14] Ye Hang, Zhang Shuyuan. Curative effect of Yupingfeng powder combined with Zhenwu decoction on refractory nephrotic syndrome[J]. Anhui Medical and Pharmaceutical Journal, 2021, 25(08):1675-1679.
- [15] Cai Xiujiang, Li Hong, Huang Meiyan. Progress in clinical application of Zhenwu Soup[J]. Journal of Practical Traditional Chinese Medicine, 2021, 37(09):1629-1632.
- [16] Huang Ki, Wang Xiaoli, Gao Qianet al. Application of Classical Prescriptions "Diuretics" in Nephrotic Edema[J]. Acta Chinese Medicine, 2018, 33(04):608-610.

[17] Jian Xiaoke, Li Xinhua. Clinical observation of Linggui Zhugan Decoction and Zhenwu Decoction in the treatment of chronic glomerulonephritis[J]. World Journal of Integrated Traditional and Western Medicine 2020, 15(06):1130-1132.

ISSN: 2006-2745