

Application of Lifting Pot and Uncovering Method in the Treatment of Chronic Heart Failure

Luyao Ran^{1,a}, Jinli Liu^{2,b,*}

¹Chengdu University of Traditional Chinese Medicine, Chengdu, Sichuan, 610032, China

²Neijiang Hospital of Traditional Chinese Medicine Affiliated to Chengdu University of Traditional Chinese Medicine, Neijiang, Sichuan, 641099, China

^a770497589@qq.com, ^b42574987@qq.com

*Corresponding author

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Abstract: Lifting pot uncovering is one of the unique therapies of traditional medicine, and its characteristic therapy solves many medical miscellaneous diseases in clinical practice. This article discusses the etiopathogenesis and pathogenesis of chronic heart failure in traditional medicine and the clinical experience of physicians in past dynasties. It expounds on the feasibility of using the lifting pot and uncovering method to treat chronic heart failure. Especially for patients with heart failure whose lower coke water dampness stops gathering obviously, this method provides a new diagnosis and treatment plan for relieving symptoms and improving the quality of life. Also, it broadens the idea of combined treatment of traditional Chinese and Western medicine for chronic heart failure.

1. Introduction

Heart failure is a complex clinical syndrome characterized by various causes of abnormal cardiac structure and/or function, leading to dysfunction of ventricular systolic and/or diastolic function, as shown in Figure 1. With China entering the aging stage of the population, the incidence of cardiovascular and cerebrovascular diseases is also increasing yearly, as shown in Figure 2. Chronic heart failure, the terminal destination of most cardiovascular diseases, is also the leading cause of clinical death in patients with cardiovascular diseases. Patients with such diseases have a much higher rate of hospitalization than patients with other cardiovascular diseases during the same period [1]. Patients with this disease often suffer from aggravation of the primary disease due to infection, resulting in repeated hospitalization. Therefore, for patients with chronic heart failure, using a combined treatment of traditional Chinese and Western medicine from multiple angles of treatment of chronic heart failure can improve the clinical symptoms of patients, improve the quality of life of patients, and delay the disease process.

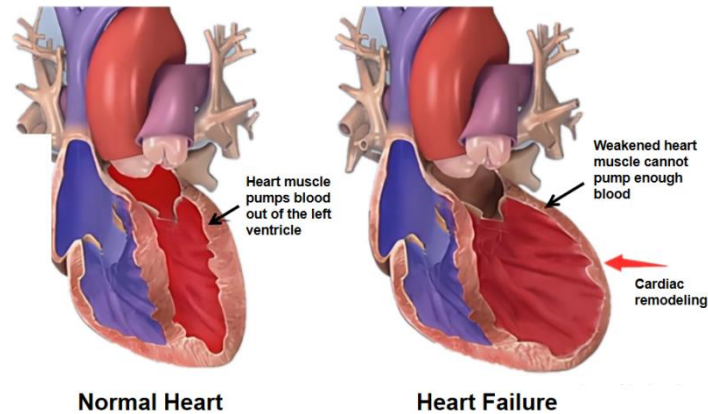


Figure 1: Cardiac remodeling

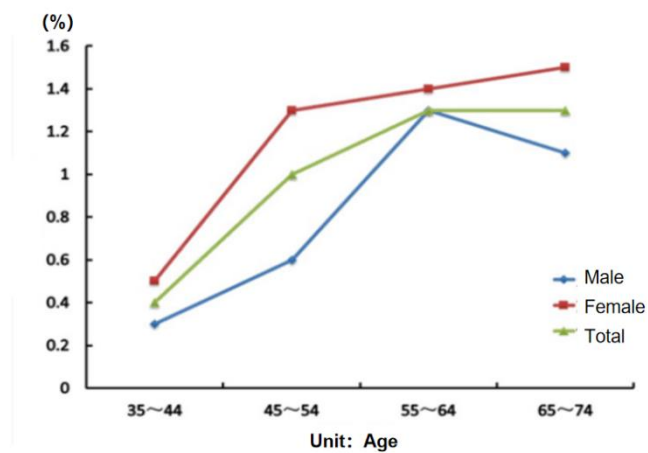


Figure 2: The incidence rate of heart failure increases with age

2. Etiology and pathogenesis of chronic heart failure

Chronic heart failure is also a severe clinical manifestation and terminal stage of various heart diseases (such as coronary heart disease, dilated cardiomyopathy, valvular heart disease, hypertension, pulmonary heart disease, etc.). Chronic heart failure is caused by various predisposing factors, including cardiac dysfunction, decreased cardiac output, and ventricular remodeling, leading to ventricular systolic and diastolic dysfunction. Most clinical manifestations were dyspnea, cough and expectoration, fatigue, fluid retention, and wheezing with movement, which worsened after exertion. Patients with chronic heart failure are in a state of circulatory volume overload for a long time, resulting in organ tissue hypoperfusion or blood stasis, quickly leading to multiple organ failure and protracted healing. Chronic heart failure, on the other hand, bears the brunt of the lung. Patients are prone to lung infection due to cold, abnormal pulmonary ventilation and ventilation function, decreased pulmonary circulation blood flow, tissue ischemia, and hypoxia, resulting in aggravated cardiac load, cardiac ischemia, and hypoxia, into aggravated pump failure. Therefore, the treatment of chronic heart failure is often based on removing inducement and anti-infection, improving ventricular remodeling diuresis, and reducing cardiac load.

Chronic heart failure belongs to Chinese medicine "heart water," "palpitations," "asthma syndrome," and "chest paralysis," and is closely related to heart, lung, spleen, and kidney. The heart

is the central organ of the internal organs, and the exuberant heart yang is the main blood vessel, instigating blood operation; otherwise, the blood supply is astringent. One cold gas, blood stasis, symptoms of fear of cold limbs, chest tightness, heartache. The second is difficulty generating blood under the heart's instigation; water rushes upwards to the heart and lungs, and palpitations, shortness of breath, and unfavorable expectoration are seen. Third, God is unknown, dim, challenging to say, dangerous. Zhang Jingyue proposed: "The five viscera of Yang Qi, non-kidney can not hair," kidney is the congenital basis, heart Yang root in kidney Yang, the two interact with each other. Heart failure, prolonged illness, and kidney yang deficiency are weak gasification, water stop, overflow rusty reason. Kidney yang deficiency is heart loss and heart obstruction. Therefore, some doctors [2] believe that careful kidney intersection, monarch phase each safe its position, to make heart yang kidney yang exuberant, play a normal physiological function. In clinical practice, patients with chronic heart failure often experience limb swelling, lip cyanosis, and asthma symptoms, and the above symptoms worsen after exertion, manifested as Shangsheng XiaXu characteristics. Some doctors [3] have studied and analyzed the TCM syndromes of patients with chronic heart failure and found that Qi deficiency, blood stasis, and water dampness cessation are the primary pathogenesis of the disease. In summary, the pathogenesis of heart failure is due to extended illness and weakness, heart loss of support, deficiency of qi and blood, kidney yang deficiency, and weakness of drinking, resulting in water dampness within the stop, wet evil stagnation easy to injure Yang Qi, cycle by cycle, due to deficiency to real, combined with the disease, belonging to this virtual standard empirical. Qi deficiency, blood stasis, and water stop is the key to the pathology of this disease, and treatment should be based on Qi and blood circulation, Wenyang Lishui.

3. Lifting pot uncovering

3.1. Origin, connotation and clinical application of lifting pot uncovering

The lifting pot and uncovering method is a characteristic treatment of traditional Chinese medicine based on the theory of "Via lung diversion channel, lower bladder" in Su Wen • Meridians Other Theory. This theory expounds that the triple energizer qi communicates the cause of the upper energizer, and the location of lower energizer disease can be treated from the upper energizer. Zhu Danxi summarizes this method as the "lifting pot uncovering" method, which is detrimental to the urination of lung qi, blocking depression waterway congestion by opening the lung qi to urinate. This method is named after the lifting cap of the lifting pot, and the water potential surges smoothly. In the Synopsis of the Golden Chamber, it has been documented that there is a syndrome of water drinking in the treatment of exogenous cold pathogens by promoting lung sweating and benefiting water. "Qianjin Yaofang" also records that patients with oliguria can be dialectical almond, Suzi, Platycodon grandiflorum, aster, and the like, through the opening of lung qi to achieve the purpose of urination. Wang Ang, a physician in the Qing Dynasty, proposed the theory that "the lung is the source above the water" in his book "Yi Fang Ji Jie"[4]. "Class political tailoring" uses this method based on the original formula to add light taste, transparent and floating drugs, lung uncovering, and eliminate the lower coke stagnation method to treat postpartum edema case records. With the further development of clinical research, some scholars have extended the connotation of "lifting pot and uncovering method" to clear lung qi, regulate qi, replenish qi, and smooth triple energizer qi. Later generations of physicians used the traditional therapy of "lifting the pot and uncovering" to treat ascites, edema, prostration, and other miscellaneous diseases. It is clinically applied in treating edema, bloating, constipation, prostration, asthma syndrome, and other diseases, expanding the scope of clinical application of traditional Chinese medicine characteristic treatment methods[5,6].

3.2. Lifting pot and uncovering method in the treatment of heart failure

Digitalis preparations, diuretics, and angiotensin-converting enzyme inhibitors (ACEI) should be used in the conventional Western medicine treatment of patients with chronic heart failure. However, long-term use will lead to drug resistance, poor efficacy, electrolyte imbalance, renal insufficiency, and even renal failure, inducing aggravated heart failure and cardiorenal syndrome. Digitalis preparations, diuretics, and angiotensin-converting enzyme inhibitors (ACEI) should be used in the conventional Western medicine treatment of patients with chronic heart failure. However, long-term use will lead to drug resistance, poor efficacy, electrolyte imbalance, renal insufficiency, and even renal failure, inducing aggravated heart failure and cardiorenal syndrome[7].

This article discusses chronic heart failure with cough, shortness of breath, oliguria, and limb edema as the main symptoms, with qi closed depression heart and lung, water drink stop, and heart and kidney yang deficiency as the pathogenesis. The lifting pot and uncovering method proposed in the above paper is to treat the heart with the lung[8], promote the purge and drop through the lung, open the upper and lower, regulate the water transmission, smooth the qi, coordinate the three viscera of the lung, heart, and kidney, reduce circulating blood volume, reduce cardiac load, and relieve shortness of breath symptoms by promoting lung qi, urinating, and eliminating edema. At the same time, this method is similar to Western medicine in treating heart failure. Traditional Chinese medicine (TCM) lifting pot and uncovering therapy combines diuretics to exert synergistic therapy to enhance diuretic efficacy.

As a representative formula for lifting pot and uncovering, Suzi Jiangqi Decoction has the effects of relieving cough and eliminating phlegm, reducing qi and relieving asthma, and warming kidney yang, and is indicated for the syndrome of upper and lower deficiency of phlegm and salivation and lower coke deficiency and cold. Among them, Suzi is the monarch drug of this prescription, Pinellia ternate, Magnolia officinalis, and Peucedanum praeruptorum are the minister, and all have a cough, expectorant, and qi effect. However, cinnamon and angelica sinensis are tonifying drugs; cinnamon warming and tonifying the fire of the Jun phase, kidney qi steaming, body fluid transmission, and water drinking to remove it; angelica tonifying qi and blood, the two combined with nourishing the liver and kidney, the treatment of lower yuan deficiency, nourishing qi and consolidating the root. Then, with licorice to harmonize the various drugs, gentlemen rely on each other, up and down, and treat.

Then, licorice is used to reconcile the various drugs, enabling the main and secondary drugs to interact and play a role in drug efficacy from top to bottom. Some doctors proposed to use the therapeutic method of TCM "Tihu Jiegai". On the basis of this method, Suzi Jiangqi Tang with platycodon grandiflorus and nutmeg is used to activate lung qi, and poria cocos and alisma orientalis are used to clear water channels. Ginseng can also be added a little to assist the cinnamon to regulate functional activity of qi, which can make urination smooth and reduce swelling. There are examples of using this prescription to treat chronic heart failure in clinical practice, and related studies have shown that Suzi Jiangqi Decoction is efficacious in improving symptoms and restoring cardiac function in patients with heart failure caused by chronic pulmonary heart disease[9]. Some scholars believe that it is different from the frequent adverse events in the course of conventional Western medicine treatment of chronic heart failure, combined with traditional Chinese medicine treatment of the disease has a better therapeutic effect on the disease, and the incidence of adverse events is lower[10].

4. Case example

The patient, Wang, female, 77 years old, was newly diagnosed on September 5, 2021. Chief complaints: tiredness and shortness of breath with edema of both lower limbs 2a after activity,

aggravated for 10d, and oliguria for 3d. 2a ago, the patient presented with tiredness after activity, shortness of breath, paroxysmal nocturnal dyspnea, cough with whitish foamy sputum, abdominal fullness, and edema of both lower limbs, and had been hospitalized several times in the past, and was diagnosed with chronic heart failure (humid and warm HFmpEF) cardiac function class III (NYHA class). She complained of a past medical history of coronary atherosclerotic heart disease, hypertension, diabetes mellitus, and chronic renal insufficiency. Ten days ago, the patient developed aggravated symptoms of tiredness and shortness of breath in the early summer. The above symptoms appeared immediately after slight activity, with significant swelling of both lower limbs, oliguria in the past three days, abdominal distension discomfort, orthopnea, difficulty in lying supine at night, cough, whitish foamy sputum, soreness and weakness of the waist and knees, poor appetite, poor sleep at night, and loose stools. T: 36.8°C, R: 25 bpm, HR: 120 bpm, BP: 180/101 mmHg. The expression was painful, and lips were cyanotic, the jugular vein was engorged, the hepatojugular reflux sign was positive, scattered moist rales could be heard at the bases of both lungs, edema of both lower limbs, tight and bright skin, dark tongue, white and greasy fur, and thin and weak pulse strings. Diagnosis: (1) acute exacerbation of chronic heart failure (wet and warm HFmpEF) cardiac function class IV (NYHA class) (2) coronary atherosclerotic heart disease (3) chronic renal insufficiency (4) hypertension class 3 (very high risk) (5) 2 type diabetes. At initial diagnosis, he was diagnosed with spleen-kidney yang deficiency syndrome and given Suzi Jiangqi Decoction with the following prescription: *Perilla frutescens* 20g, *Peucedanum praeruptorum* 15g, *Pinellia ternata* 15g, *Platycodon grandiflorum* 15g, *Cardamom white* 15g, *Angelica sinensis* 25g, *Magnolia officinalis* 15g, *Cinnamomum cassia* 10g, *Polyporus umbellatus* 25g, *Poria cocos* 25g, *Citrus sinensis* 15g, *Alisma orientalis* 15g, *Glycyrrhiza uralensis* 6g. The upper decoction was 450 ml, one dose/d, thrice a day, 150 ml each time. After taking three doses, the patient had increased urine volume and continued to take the drug for two days, with daily urine volume up to 900 ml, slightly relieved abdominal fullness and edema of both lower limbs.

Reexamination: On September 11, 2021, the patient rested in semi-recumbent position, could turn over and move, had scanty complexion, cyanosis of lips, slightly relieved abdominal distension, relieved lower limb edema than before, depressed skin according to it, and still had tiredness and shortness of breath after activity, but the frequency and degree of attacks were reduced than before, the urine volume was increased, and the daily urine volume could reach 900 ml. The tongue was pale and white, the sublingual veins were stasis, and the pulse strings were thin. Syndrome differentiation is Qi deficiency and water stagnation syndrome. Prescription medication is adjusted as *Perilla frutescens* 20 g, *Peucedanum praeruptorum* 20 g, *Ginseng* 10 g, *Astragalus membranaceus* 30 g, *Pinellia ternata* 15 g, *Platycodon grandiflorum* 15 g, *Cardamom* 15 g, *Angelica sinensis* 25 g, *Magnolia officinalis* 15 g, *Cinnamomum cassia* 10 g, *Poria cocos* 25 g, *Citrus sinensis* 15 g, *Alisma orientalis* 15 g.

After taking this prescription for four days, the patient received three examinations on September 16, 2023: The edema of lower limbs subsided, abdominal distension was significantly relieved, appetite turned well, the patient could get out of bed slowly, urine volume was 1200 ml per day, the patient could rest in recumbent position at night, and the symptoms of cough, expectoration, and shortness of breath were relieved than before. Prescription: *Panax ginseng* and *Alisma orientalis* were subtracted from the second diagnosis prescription. After taking seven doses, the patient was in stable condition, and lower limb edema did not recur. The patient was recovered and discharged.

5. Note

Patients with chronic heart failure are often associated with other risk factors, such as hypertension, diabetes, coronary heart disease, and cardiomyopathy; the long process of oral hypoglycemic,

antihypertensive, and hypolipidemic drugs will increase the burden on the liver and kidney, resulting in liver and kidney dysfunction. Once severe renal dysfunction occurs, abnormal renal water metabolism quickly causes diuretic resistance, aggravates heart failure, causes heart and kidney mutual influence, becomes cardiorenal syndrome, and falls into a vicious cycle [7], as shown in Figure 3. Therefore, combined with traditional Chinese medicine in the whole course of the disease and prognosis and care stage of adjuvant therapy, it is conducive to improving symptoms, alleviating the process of disease development, and improving patients' quality of life. Taking the above medical records as an example, this patient was an older woman with a history of heart failure for many years, very edema of the lower limbs at the early stage of onset, abdominal fullness, cough, asthma, and shortness of breath, which stopped in the viscera and flooded in the body in the water, considering syndrome differentiation as spleen-kidney yang deficiency syndrome, which should warm the kidney-yang and promote lung and water. We used the therapeutic method of TCM "Tihu Jiegai" to promote lung and urinate and relieve edema. On the basis of selecting Suzi Jiangqi Tang, we added drugs such as platycodon grandiflorus and cardamom to achieve the effect of promoting lung qi. Additionally, we added Poria cocos, Alisma orientalis and Poria cocos to promote diuresis and eliminate edema. After taking the drug, the patient's urine volume increased, abdominal distension was relieved, and lower limb edema subsided, suggesting that after treatment with the "lifting pot and uncovering" method, the waterway was clear. The water drink was excreted from the body. At the return visit, the patient had a white complexion and pale tongue with little coating; considering long illness and qi deficiency, based on the original formula, cinnamon switched to Guizhi to avoid endogenous dryness and heat, subtracted Polyporus umbellatus, weakened water power, and added ginseng and Astragalus membranaceus to replenish qi and generate fluid.

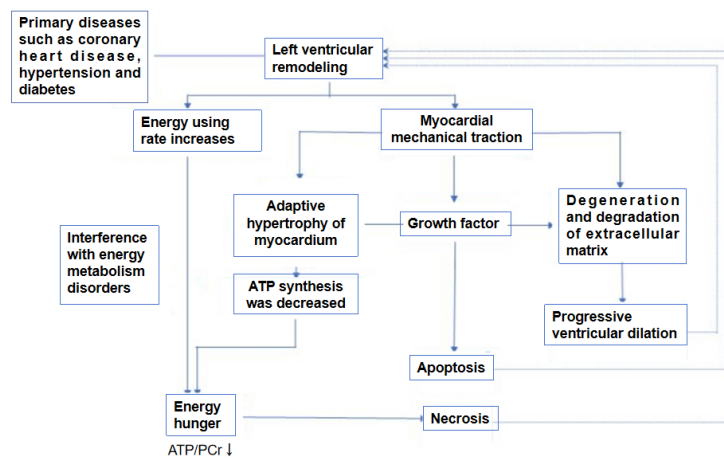


Figure 3: The vicious circle of chronic heart failure

6. Conclusion

Traditional Chinese medicine (TCM) believes that chronic heart failure belongs to the categories of "edema," "palpitation," and "chest obstruction," and the disease location is in the heart. It is associated with the lung, spleen, and kidney. In the clinical treatment of patients with chronic heart failure, identifying the priority, urgent treatment of symptoms, slow treatment of symptoms, or specimens with the same treatment should identify the location of viscera grasp the key to pathogenesis [11]. This article discusses the application of lifting pot and uncovering methods in treating various stages of heart failure. There are related symptoms caused by lung loss and declaration, such as shortness of breath, cough, edema, oliguria, and other symptoms, or in addition

to other diuretic and swelling drugs with lung qi declaration, such as Platycodon grandiflorum, ephedra, perilla drugs, containing the meaning of lifting pot and uncovering, but also in the declaration of lung qi, asthma and cough at the same time to increase the diuretic effect.

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