ISSN 2706-6819 Vol.4, Issue 6: 21-26, DOI: 10.25236/IJFM.2022.040604

Cardiovascular Disease Traditional Chinese and Western Medicine Combined Treatment Science and Standardized Drug System Research

Kaixiang Zhang[a], Zhixiang Zhang[b,*]

Shaanxi University of Chinese Medicine, Xianyang, China
[a]1477597300@qq.com, [b]939847469@163.com
**Corresponding author*

Abstract: *A combination of traditional Chinese and western medicine should be adopted to improve the prevention and treatment level of cardiovascular disease according to the condition and treatment status of patients with cardiovascular disease. At the same time, patients with cardiovascular disease should maintain emotional stability during the treatment process, pay attention to diet and appropriate exercise, and combine prevention and treatment. During treatment, different drugs should be selected according to the different conditions of patients with cardiovascular disease at different ages, and the dose of drugs should be adjusted according to the patient's condition and physical condition to play the most tremendous role.*

Keywords: *Traditional Chinese and western medicine, prevention and treatment of cardiovascular disease; scientific drug treatment*

1. Introduction

China currently has many cardiovascular disease patients, which is also the leading cause of premature death in adult men and women. In order to improve the prevention and treatment level of cardiovascular disease in China, traditional Chinese medicine will be carried forward, and traditional Chinese and western medicine will be combined to prevent and treat cardiovascular disease. For the incidence of cardiovascular disease, the first thing to do is the following: quit smoking, pay attention to weight and waist circumference, exercise more, and eat more foods that are good for cardiovascular health. This can prevent disease and lay the foundation for drug treatment.

2. Cardiovascular Disease

Cardiovascular disease refers to the diseases of the human circulatory system, mainly caused by the tissues and organs of the blood transport function in the human body. Cardiovascular disease and acute cardiovascular disease. However, these diseases' etiology, pathogenesis, and treatment methods are similar. Causes of Common Cardiovascular Diseases Hypertension: Hypertension, also known as primary hypertension, is a systemic, chronic vascular disease characterized by elevated blood pressure and persistently elevated diastolic blood pressure. Common symptoms include headache, dizziness, and fatigue. Advanced stage patients will have different degrees of organ damage, such as heart, brain, kidney, etc. Chronic heart failure is a syndrome dominated by circulatory dysfunction. When the venous return is sufficient, the cardiac output is absolutely or relatively insufficient and cannot meet the body's metabolic needs. Circulatory dysfunction is mainly manifested as congestion in the venous circulatory system in the body. According to the development and clinical manifestations of heart failure, it can be divided into three categories: left heart failure, right heart failure, and left ventricular diastolic insufficiency heart failure. Coronary atherosclerotic heart disease is a heart disease caused by atherosclerosis of the left and right coronary arteries and their branches. Ischemic heart disease is also called ischemic heart disease. The World Health Organization has declared the two terms synonymous. Coronary heart disease is mainly manifested as angina pectoris, myocardial infarction, arrhythmia, heart failure, heart enlargement, etc.see Fig. 1.

ISSN 2706-6819 Vol.4, Issue 6: 21-26, DOI: 10.25236/IJFM.2022.040604

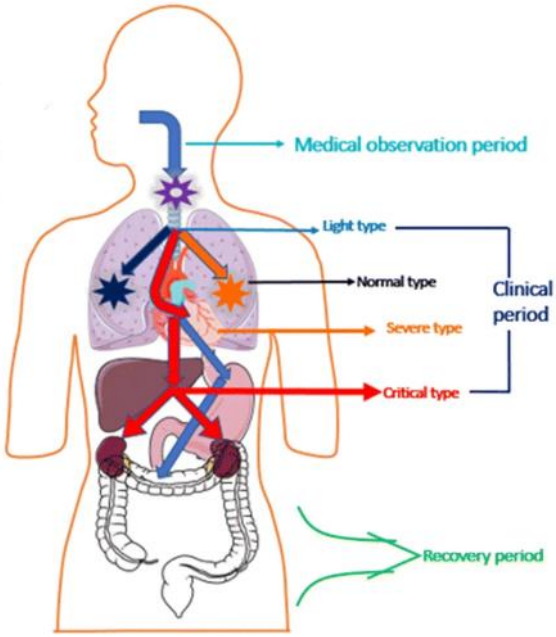

Figure 1: Cardiovascular disease types diagram

3. Cardiovascular Risk Factors

Everyone has more or less risk factors that may induce atherosclerosis, including those that can be prevented or modified, those that can be treated or controlled, or those that cannot be avoided. However, some specific risk factors also increase the risk. These factors include smoking, lack of exercise, obesity, unhealthy diet, high salt intake, and excessive alcohol consumption. Hypertension, hypercholesterolemia, hypertriglyceridemia, diabetes, kidney disease, etc., are risk factors that can be treated or partially treated. Fixed risk factors include significant family history. Women under 55 whose father or brother, mother, or sister had a heart attack or stroke before age 65 were at high risk. Male group: Male, with severe baldness on the top of the head. Women in early menopause: Women who enter menopause before age 46 are twice as likely to suffer from heart disease and stroke as other women, according to a U.S. study. Age: The older you are, the higher your chances of developing atherosclerosis. If one or more risk factors are present, lifestyle enhancement is required to prevent cardiovascular disease.

4. Discussion on the Prevention and Treatment of Cardiovascular Diseases Combined with Traditional Chinese and Western Medicine

4.1 Discussion on the Prevention and Treatment Thought of Western Medicine

Atherosclerosis is one of the most common cardiovascular diseases. Atherosclerosis is a relatively tricky disease to treat, mainly manifested as stable angina pectoris, unstable angina pectoris, myocardial infarction, etc. Current studies have shown that endothelial cells are subject to multiple potential damages, such as cytokine release and CRP-reactive protein (C-reactive protein). Too high a concentration of CRP can affect the properties of endothelial cells, thereby causing tissue damage. The effects of CRP on the inflammatory response mainly include activating the complement system,

enhancing the indirect destruction of endothelial cells by T cells, promoting the production of adhesion molecules between endothelial cells, stimulating macrophages to produce tissue factors, and enhancing the phagocytic ability of macrophages.see Fig. 2.

Western medicine is effective in symptomatic treatment but cannot fundamentally control the cause. Therefore, it is an effective method to cooperate with Traditional Chinese medicine in the treatment process of patients.

ISSN 2706-6819 Vol.4, Issue 6: 21-26, DOI: 10.25236/IJFM.2022.040604

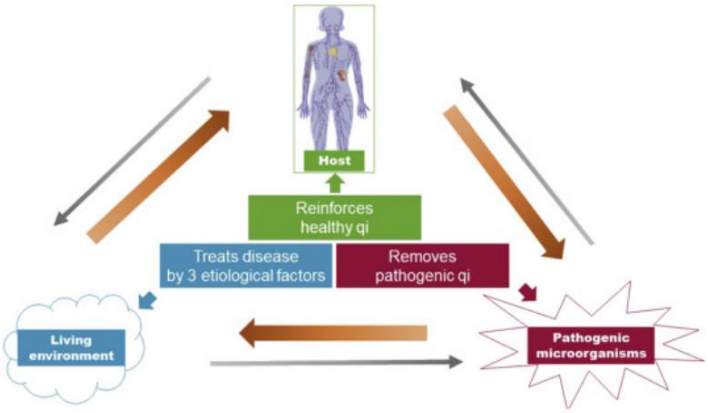

Figure 2: Cardiovascular disease Traditional Chinese medicine prevention and treatment

4.2 Cardiovascular Disease hs-CRP Research

In recent years, many studies have found that hs-CRP is an independent and effective indicator for predicting the risk of cardiovascular disease in healthy people. Studies have shown that the higher the serum hs-CRP level, the greater the possibility of myocardial infarction and stroke in the future. In addition, scholars believe that the hs-CRP level is positively correlated with cardiovascular disease, not accompanied by other diseases and bad habits. The literature has confirmed that hs-CRP has essential value in cardiovascular disease. Using hsCRP sensitivity to evaluate high-risk groups can provide better prevention and treatment information for this article. Therefore, Hs-CRP is optional in the health care system but not the most commonly used.

4.3 Research on the Prevention and Treatment of Cardiovascular Disease Traditional Chinese Medicine

Traditional Chinese medicine believes that the dysfunction of the zang-fu organs causes the qi, blood, and body fluids to run poorly. If the spleen and stomach function declines, the grains of water and grains will become turbid lipids and enter the blood, increasing blood lipids. Blood is transmitted to all parts of the body through the blood. When the organs are dysfunctional, the normal flow of blood will be affected, resulting in poor blood circulation. Due to the mutual accumulation of phlegm and blood stasis will lead to atherosclerosis, which can lead to stroke, chest pain, heartache, dementia, and other diseases. Therefore, in Traditional Chinese medicine, drugs that promote blood circulation and remove blood stasis, expectorate phlegm and lower lipids, and invigorate qi and promote blood can be selected. Among them, Panax notoginseng has a higher usage rate and has the functions of dispersing blood stasis and hemostasis, reducing swelling and relieving pain, and has a mild medicinal property. Studies have found that the active ingredients of Panax notoginseng can significantly increase the levels of vascular endothelial relaxation factor (NO) and SOD, reduce the activity of endothelin (ET) and plasma lipid peroxide (LPO) and antagonize platelet adhesion, aggregation, thrombosis, and protection. Arterial wall, dilation of blood vessels, etc. Adding a variety of drugs to the formula has the effect of promoting blood circulation and removing blood stasis. Traditional Chinese medicine focuses on syndrome differentiation, formulates individualized treatment plans according to the actual situation of patients, and adopts targeted treatment to improve the curative effect. If western medicine and Chinese patent medicine are combined, the effect will be better.

4.4 Usage Characteristics of Commonly Used Cardiovascular Drugs

Cardiovascular commonly used drugs should be strictly selected for indications due to their more complex components than unilateral ones. Improper storage of commonly used cardiovascular drugs will affect the quality of the product. The light must be checked before use. If there is turbidity, precipitation, discoloration, air leakage, etc., it is prohibited to use. Medical personnel should use the dosage strictly in accordance with the instructions and should not use excessive or high concentrations; children and the elderly should reduce the dosage according to their age and physical condition; it should be at room temperature before dilution, and it should be used immediately. In addition, special groups, such as the elderly, children, people with abnormal liver and kidney function, and the first use of common

ISSN 2706-6819 Vol.4, Issue 6: 21-26, DOI: 10.25236/IJFM.2022.040604

cardiovascular drugs should be used with caution and strengthened monitoring.

5. Cardiovascular Drug Classification And Application Research

The first four classes of drugs are mainly beta-blockers, calcium channel blockers, angiotensin-converting enzyme inhibitors, diuretics, nitrates, and angiotensin receptor antagonists.

5.1 Beta-Blockers

β-blockers can selectively bind to β-adrenergic receptors and antagonize the agonistic effects of catecholamines and neurotransmitters on β-receptors. Adrenergic receptors are mainly distributed on the receptor cell membranes innervated by postganglionic fibers, and their receptors are divided into three categories: β receptors, β Z receptors, and receptors. Alpha-blockers have therapeutic effects on hypertension, coronary heart disease, heart failure, arrhythmia, hypertrophic cardiomyopathy, and left atrioventricular valve prolapse. Combined with sodium nitroprusside can be used for the treatment of aortic dissection. Currently, commonly used receptor blockers are metoprolol, color, and atenolol.see Fig. 3.

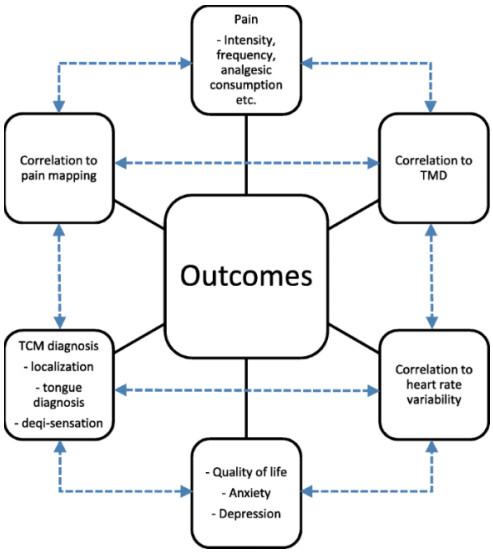

Figure 3: Discussion on the prevention and treatment of cardiovascular diseases combined with traditional Chinese and western medicine

5.2 Calcium Channel Blockers

Calcium channel blockers, also known as calcium antagonists, block the calcium ion channels on the membrane of myocardial and vascular smooth muscle cells, inhibit the inflow of extracellular calcium ions, and reduce intracellular calcium ions, thereby causing cardiovascular and other tissues and organs. Change—clinical application: Angina pectoris, diltiazem, and verapamil's representative drugs. Nifedipine and nitrendipine are antihypertensive drugs. For arrhythmia, non-dihydropyridine calcium antagonists (such as verapamil) are mainly used, and verapamil is currently the first choice for the treatment of paroxysmal supraventricular tachycardia.

5.3 Angiotensin-Converting Enzyme Inhibitors

ACEI can inhibit the activity of an angiotensin-converting enzyme, which catalyzes angiotensin to produce angiotensin B, which has potent vasoconstrictor and adrenal cortical aldosterone-releasing activity. ACEI can inhibit the synthesis of angiotensin B, thereby controlling hypertension. ACEI has a therapeutic effect on hypertension, heart failure, myocardial infarction, and glomerular disease. Commonly used drugs are enalapril and captopril.

ISSN 2706-6819 Vol.4, Issue 6: 21-26, DOI: 10.25236/IJFM.2022.040604

5.4 Diuretics

The prominent role of diuretics is to promote the excretion of electrolytes (sodium ions) and water in the body, thereby increasing urine output and lowering blood pressure. The antihypertensive effect of the drug is milder and lasts longer. Suitable for patients with mild and moderate hypertension.

6. Scientific and Standardized Traditional Chinese and Western Medicine Combined Drug System Research

The cardiovascular disease belongs to the categories of "chest pain," "heart pain," and "true pain" in Traditional Chinese medicine, and it belongs to the evidence of the virtual and the real. There are a wide variety of medicines, the price difference is significant, and the competition is fierce. In the cardiovascular disease drug market, Chinese patent medicines are mainly divided into oral and injection, of which oral preparations account for more than 85%, mainly tablet and capsule preparations; from the data analysis results, currently commonly used drugs due to high costs, The price of injections is still number one. Choosing a drug with a reasonable price and an exact curative effect from a large number of drugs has become a vital issue in-hospital treatment, and it is also an essential link for clinicians to use drugs and reflect the economic drug-efficiency ratio rationally. On the one hand, the choice of moderately priced oral preparations can better reflect the drug economy; on the other hand, the choice of conventional tablet and capsule dosage forms is also the primary angle to reflect the drug economy. In-depth analysis and comparison will be further conducted in future research. Many cardiovascular patients need long-term medication, and nursing staff should be patient and meticulous in drug knowledge education, especially the correct use, preservation, and observation of drugs. According to the characteristics of the patient, the image, repeated and repeated educational methods are used to help the patient's memory, especially the medicines with different shapes or colors so that the patient can distinguish; for the discharged patients, they can supervise and guide the patients by telephone or door-to-door to ensure the safe medication of the patients. While educating patients, it is necessary to strengthen medication knowledge education for the patient's family members, especially the family members who live with the patient, so that they can learn to properly take care of the patient's medication, strengthen cooperation and supervision, and prevent accidents due to improper medication.

Patients with cardiovascular disease often suffer from a variety of chronic diseases and need to take multiple drugs simultaneously. The drug regimen is complex, and the function of various organs is reduced, resulting in changes in pharmacokinetics and pharmacodynamics and an increase in the incidence of adverse drug reactions. Because most patients are elderly, their hearing, vision, memory, and comprehension have decreased to varying degrees, self-medication is common, and treatment compliance is poor—even life-threatening in severe cases. Clinical nursing should do an excellent pre-medication evaluation to improve medication safety. Cardiovascular disease has become one of the most severe diseases in today's society, and drug therapy has become an essential means to improve patients' quality of life. However, in the process of clinical nursing, it was found that there are many unsafe factors in the medication process of the patient. Through a comprehensive assessment of the patient before medication and corresponding guidance, measures were taken according to the assessment results, and the patient and his family were delighted with the medication guide. Patients can cooperate reasonably with treatment and nursing during hospitalization and safely take medicines according to doctor's orders after discharge.

7. Conclusion

The combination of traditional Chinese and western medicine plays an essential role in cardiovascular disease rehabilitation and prevention of recurrence. As with interventional therapy for myocardial infarction, one in four patients after surgery will not be able to restore blood flow to the heart muscle. This situation can be reduced by half if the scientific and standardized medication combined with traditional Chinese and western medicine is used during the operation. Western medicine has an excellent therapeutic effect on premature beats, atrial fibrillation, and arrhythmia, but 5% of patients will have adverse reactions.

ISSN 2706-6819 Vol.4, Issue 6: 21-26, DOI: 10.25236/IJFM.2022.040604

References

[1] Xing Xingyun, Yang Chuanhua, Guo Weixing. Cardiovascular Disease. Taiyuan: Shanxi Science and Technology Press, Vol. 18 (2020) No. 08, p.211-215.
[2] Li Jinhui. Effective measures to prevent and treat cardiovascular disease. Chinese Journal of Health and Nutrition, Vol. 24 (2021) No. 10, p.136-138.
[3] Gu Yiting, Gu Hai. Research on the combination of traditional Chinese and western medicine in the treatment of cardiovascular disease. Traditional Chinese medicine information, Vol. 12 (2020) No. 12, p.141-145.
[4] Lei Manxue. Percutaneous nephrolithotomy perioperative nursing care. Healthy Road, Vol. 16 (2021) No. 14, p.146-149.
[5] Wang Weiguo, Wang Huiling. Rational analysis of clinical drug use for cardiovascular disease. Latest Medical Information Digest, Vol. 20 (2020) No. 16, p.45-48.