# Analysis of Medical Therapeutic Effect of Blood Vessel in Coronary Heart Disease and Angina Pectoris

Min Li

Southwest Petroleum University Hospital, Sichuan, 610500, China

**Abstract:** In the process of clinical treatment of angina pectoris of coronary heart disease, western medicine is mostly used to treat angina pectoris, but because the treatment effect of western medicine is more or less poor, so we plan to use western medicine therapy and integrated traditional Chinese and western medicine to compare the treatment and analyze the treatment effect, so as to provide practical reference for improving the clinical treatment effect of patients with angina pectoris of coronary heart disease. Methods: A total of 120 patients with angina pectoris of coronary heart disease treated in a hospital from January 2019 to January 2020 were randomly divided into the control group and the observation group. The control group was treated with traditional western medicine for angina pectoris. The observation group was treated with integrated traditional Chinese and western medicine for coronary heart disease and angina pectoris, and the therapeutic effects of the two groups were compared. Results: it was found that TC, TG, incidence of adverse reactions, frequency and duration of angina pectoris in the observation group were lower than those in the control group (P < 0.05). Conclusion: the treatment of angina pectoris of coronary heart disease with the combination of Chinese and western medicine has a better therapeutic effect in the treatment of angina pectoris of coronary heart disease, and the incidence of adverse reactions is lower, so it has the value of popularization and application.

**Keywords:** Coronary heart disease; Angina pectoris; Treatment methods; Effect analysis

### 1. Introduction

Angina pectoris of coronary heart disease is an internationally recognized killer of middle-aged and elderly people in recent years. According to relevant data, the number of patients with coronary heart disease and angina pectoris in China is increasing year by year, and the number of deaths of patients with coronary heart disease in China ranks first in the world. Coronary heart disease has become one of the highest mortality diseases in the world. This disease is not only complex, but also develops rapidly and takes a long time to treat. If the patient does not receive treatment in time, the course of the disease will worsen in a very short time, and the degree of angina pectoris will gradually deepen. This will not only affect the late diagnosis and treatment of patients, but also affect the physical and mental health of patients to a certain extent. Therefore, in the process of clinical treatment, doctors often adopt different treatment measures according to the actual situation of patients, improve the clinical symptoms of patients, and achieve good treatment effect, so that the blood lipid level of patients tends to be normal. reduce the burden of coronary heart disease and angina pectoris on patients' families, so as to achieve a good diagnosis and treatment effect. Generally speaking, traditional western medicine is the main means of clinical treatment, but in the process of clinical diagnosis and treatment, it is found that traditional western medicine treatment will make patients develop drug resistance and affect the survival rate of patients. Therefore, in this study, 100 patients in a hospital are mainly taken as the research object, which are treated by traditional western medicine and the combination of Chinese and western medicine respectively in order to observe the application effect of the treatment measures, the specific situation is as follows.

### 2. Data and Methods

### 2.1. General information

This study mainly selected 120 patients with coronary heart disease (CHD) and angina who visited a hospital from January 2019 to January 2020. The patients were randomly divided into a control group and an observation group, with 60 patients in each group. Patients with CHD and angina in the control group ranged in age from 29 to 77, with an average age of 48.3±1.9 years and a course of disease ranging from 1 to 5 years. In the observation group, the age range of patients with CHD and angina was 31-72 years, with an average age of 52.6±2.9 years,

and the course of disease was 1-4 years. Comparison of general data between the control group and the observation group confirmed that there was no statistically significant difference in general data between the two groups (P>0.05), indicating comparability. All patients participating in this study were diagnosed with different types of coronary heart disease and angina pectoris during clinical diagnosis and treatment, and signed a confirmation letter agreeing to participate in this study.

Diagnostic and exclusion criteria: Patients with angina were diagnosed according to the diagnostic symptoms and treatment guidelines for different types of angina proposed by Chinese Society of Cardiology, and patients with consistent symptoms described in the guidelines were included in this study. Patients participating in this study who do not meet the criteria stated in the guidelines will be excluded. The exclusion criteria should not only be based on the target indications and drug characteristics, but also take into account multiple factors such as effectiveness, safety and ethics.

#### 2.2. Methods

The patients in the control group were treated with conventional western medicine for angina pectoris: aspirin, Atto vastatin, isosorbide trinitrate and metoprolol were given to guide patients to read the drug instructions carefully and take the drugs on time. Aspirin was taken 100mg once a day, Atto vastatin 20mg once a day, isosorbide dinitrate 40mg once a day, and metoprolol 12.5mg twice a day. In the process of western medicine treatment in the control group, the doctor will adjust the drug and dose of the patient according to the actual course of the disease, so that the patient can get a better treatment effect.

The treatment measures adopted in the observation group were given intramuscular injection of compound Salvia miltiorrhiza injection on the basis of conventional western medicine for coronary heart disease and angina pectoris, 2 mL each time, twice a day. If the course of the disease is serious, mix 8mL compound Salvia miltiorrhiza injection with 5% glucose solution of 150mL for intravenous drip, once a day.

The treatment time of the control group and the observation group was 15 days.

#### 2.3. Observation index

Clinical observation was conducted for patients in the control group and the observation group, and changes in TC and TG indexes were statistically analyzed. Adverse reactions occurred in patients in the two groups during the treatment were recorded. Occurrence and duration of angina in patients during the treatment were recorded,

and information of the situation was summarized. In this process, the patient's liver and kidney function and blood routine should be checked regularly in accordance with the doctor's advice to ensure that the patient's physical condition is in a benign change.

The adverse reactions occurred during the treatment included dizziness, headache, nausea, abdominal pain and constipation, and the total incidence of these five manifestations was calculated. If the patient is basically healthy after treatment, the frequency of angina attack significantly decreases, the duration of each angina attack is effectively shortened, and the patient's own mental and psychological state is good, the treatment effect is significant. If the symptoms of angina pectoris were significantly improved, the frequency of angina pectoris attacks decreased, the duration of angina pectoris shortened, and the condition improved after treatment, the treatment effect was effective. If the patient still has recurrent angina symptoms after treatment, with no change in attack frequency and time, or even aggravation of the disease, then the treatment effect is ineffective.

#### 2.4. Statistical methods

In this study, SPSS20.0 was mainly used as the statistical software for data information, and the software was used for data analysis. The measurement data used in the research process is represented by ( $\overline{^X}\pm s$ ), and t-test is applied to it; the counting data used in the study was represented by %, and X2 test was applied to it. When P < 0.05 is determined, the data in this study can be considered to be significantly different and statistically significant.

#### 3. Results

# 3.1. Comparison of the changes of tc and tg indexes in the two groups before and after treatment

As shown in Table 1, there were significant changes in TC and TG indexes in the two groups before and after treatment. After treatment, both the observation group and the control group showed significant decreases in TC and TG indexes. The levels of TC and TG indexes in the observation group were  $(1.4\pm0.6)$  mmol/L and  $(4.1\pm1.1)$  mmol/L respectively. The TC and TG levels of the control group after treatment were  $(2.3\pm1.0)$  mmol/L and  $(5.4\pm1.7)$  mmol/L respectively. According to the changes of TC and TG indexes of the patients, the post-treatment indicator level was far better than that before treatment, and the difference between the two was statistically significant (P < 0.05).

Table 1. Comparison of changes in TC and TG indexes between the control group and the observation group before and after treatment  $(\bar{x} \pm s)$ 

Group	The number of cases		TC(mmol/L)	TG(mmol/L)
Observation group	60	Before the treatment	$3.0\pm0.8$	6.2±2.2
		After treatment	$1.4\pm0.6$	$4.1 \pm 1.1$
Control group	60	Before the treatment	$3.1 \pm 1.1$	6.3±1.9
		After treatment	$2.3 \pm 1.0$	5.4±1.7

# **3.2.** Comparison of the number of adverse reactions before and after treatment between the two groups

After clinical treatment, 3 patients in the observation group had dizziness, 2 had nausea and other adverse reactions, and the incidence of adverse reactions was 8.3%. In the control group, 5 patients had dizziness, 3 patients had headache, 3 patients had nausea, 1 patient had abdominal pain, 1 patient had constipation and other adverse reactions, and the incidence of adverse reactions was 21.7%. The difference between the two groups was statistically significant.

# 3.3. Comparison of angina attacks between the two groups before and after treatment

As shown in Table 2, from the two groups after treatment in patients with angina, the frequency and duration of angina attacks in the observation group were significantly lower than those in the control group. In the control group, the frequency of angina attack was (6.2±1.2) times, and the duration of angina attack was (5.9±1.4) min. After treatment, the frequency of angina attack in the observation group was (3.5±1.3) times, and the duration of angina in the observation group was (1.6±0.4) min. There were statistically significant differences between the observation group and the control group in terms of angina attack (P < 0.05).

Table 2. Comparison of angina attacks between the control group and the observation group  $(x \pm s)$ 

Group	The number of cases		Frequency of angina attacks (times)	<b>Duration of angina pectoris (min)</b>
Observation group	60	Before the treatment	$10.2 \pm 1.3$	$12.3\pm2.5$
		After treatment	$3.5 \pm 1.3$	$1.6 \pm 0.4$
Control group	60	Before the treatment	9.7±1.5	$12.4 \pm 2.3$
		After treatment	$6.2 \pm 1.2$	$5.9 \pm 1.4$

# 4. Discussion

From the perspective of clinical medicine, angina pectoris is a common symptom in the clinical complications of coronary heart disease. Coronary heart disease is caused by the appearance of atherosclerosis in human coronary arteries, leading to the occurrence of vascular lumen stenosis in patients, and leading to coronary artery lesions. Coronary artery lesions will lead to myocardial ischemia in the human body, and abnormal lipid levels will accumulate in the inner walls of the arteries, blocking the normal operation of blood flow, leading to insufficient coronary artery blood supply, and thus causing angina. For a long time, coronary heart disease angina pectoris is a high incidence of middle-aged and elderly people, more than 100,000 people die of coronary heart disease angina pectoris every year. According to World Health Organization (WHO) 's annual report, the number of coronary heart disease deaths in China has long been among the top three in the world. Clinical examination of CHD and angina pectoris is mainly performed by static electrocardiogram and dynamic electrocardiogram, and CT and coronary angiography are also used for examination in some patients. In general, the treatment of coronary heart disease and angina pectoris in China is dominated by Western drugs. Although the application of these drugs can effectively relieve the discomfort caused by coronary

heart disease and angina pectoris, long-term usage will lead to drug tolerance in patients. When patients are tolerant to drugs, the efficacy of drugs will not be able to play effectively, and even various types of adverse reactions will appear in the clinical diagnosis and treatment of patients, such as dizziness, nausea and so on. So, in this context, we should explore more effective treatment of coronary heart disease angina pectoris. Traditional Chinese medicine (TCM) has been inherited and developed for thousands of years in China, and various new TCM diagnosis and treatment technologies have made China's medical level advance by leaps and bounds. In many clinical medical studies, traditional Chinese medicine treatment and western medicine treatment are combined to improve the poor prognosis of traditional Western medicine treatment and the medical drawbacks of slow effect of traditional Chinese medicine treatment. In the current clinical diagnosis and treatment, aspirin and Atto vastatin are mainly used to improve the myocardial blood supply function of patients. The mixed use of compound salvia miltiorrhiza injection and glucose can improve the level of myocardial contraction, increase cardiac coronary flow, improve vascular function, improve myocardial hypoxia tolerance, improve collateral circulation and local blood supply of ischemic myocardium, and inhibit platelet aggregation, slow down the thrombosis, promote patients' blood pressure to remain

stable, so as to improve the survival rate of patients with angina pectoris in the process of coronary heart disease, has begun to be recognized by more and more doctors and patients. It can be said that this treatment of integrated traditional Chinese and western medicine not only makes up for the deficiency of traditional coronary heart disease angina pectoris in the treatment of western medicine, but also can bring more significant therapeutic effect for patients. In addition, during the treatment of patients with angina pectoris of coronary heart disease, patients should be instructed to eat scientifically, reduce their excessive salt intake, eat more fiber-rich foods such as vegetables and fruits, and develop healthy living habits. Thus, on the basis of improving the symptoms of angina pectoris in patients with coronary heart disease, patients continue to reduce the attack time of angina pectoris, reduce the frequency of angina pectoris, and make patients have a better prognosis of angina pectoris.

In this study, the levels of TC and TG after treatment in the observation group were significantly lower than those in the control group, and the incidence of adverse reactions was only 8.3%. In this study, the levels of TC and TG after treatment in the observation group were significantly lower than those in the control group (2.3  $\pm$ 1.0) mmol/L and (5.4  $\pm$ 1.7) mmol/L. After treatment, the frequency of angina pectoris in the observation group was significantly lower than that in the control group. From the results of this study, the treatment of angina pectoris

of coronary heart disease with the combination of traditional Chinese and western medicine is better than that of traditional western medicine, and can promote the prognosis of patients. It can be popularized in the clinical treatment of angina pectoris of coronary heart disease.

## References

- [1] Li Wenzhe, Zhao Yiwen, Ma Yang. Research progress of TCM decoction on coronary heart disease. China Sanatorium Medicine. 2020, 29(08), 815-816.
- [2] He Lijie, Che Qifu. Clinical observation of aspirin, benapril and metoprol combined with Jiawei Danshen decoction in the treatment of angina pectoris of coronary heart disease. Guangming Chinese Medicine. 2020, 35(13), 2062-2064.
- [3] Yun Huifeng. Effect of metoprolol combined with tongxinluo capsule on angina pectoris of coronary heart disease. Journal of Mathematical Medicine. 2020, 33(07), 1050-1051.
- [4] Gao Hongmei. Tanshinone II A sulfonic acid sodium injection in the treatment of coronary heart disease angina pectoris curative effect analysis. Electronic Journal of Cardiovascular Diseases with Integrated traditional Chinese and Western Medicine. 2020, 8(18), 37.
- [5] Zhang Mengyang. Progress in the treatment of angina pectoris with coronary heart disease by traditional Chinese medicine. Chinese Journal of Urban and Rural Enterprise Health. 2020, 35(06), 31-33.
- [6] Sun Danbin. Clinical study of integrated Traditional Chinese and Western medicine in the treatment of unstable angina pectoris with Coronary heart disease. Electronic Journal of Cardiovascular Diseases with Integrated Traditional Chinese and Western Medicine. 2020, 8(15), 1.