Effect of Danhong Injection Combined with Magnesium Polarization Solution and Nitrate in Treating Coronary Heart Disease

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Abstract: The objective of this study was to observe the effect of Danhong injection combined with magnesium polarized solution and nitrate on coronary heart disease. A total of 58 patients who had been diagnosed with coronary heart disease who participated in the voluntary study were selected and divided into observation group and control group. The number of patients in the two groups was 29, and the control group was mainly injected with nitroglycerin. The observation group was mainly treated with Danhong injection combined with magnesium polarized solution and nitrate ester. The main comparisons were the difference of clinical treatment effect, total cholesterol before and after treatment between the two groups of patients under different therapeutic drugs, and the differences in endothelin were recorded. The observation group was superior to the control group in terms of clinical treatment effect and total cholesterol and endothelin after treatment. Danhong injection combined with magnesium polarized solution and nitrate ester has a good effect in the treatment of coronary heart disease, which can be promoted and developed.

0 Introduction

The number of people suffering from coronary heart disease in China is large, and it shows a trend of increasing year by year. The pathogenesis of coronary heart disease is mainly due to the presence of coronary atherosclerosis. As a result of this, the patient's lumen is narrowed or paralyzed, which slows the blood flow in the coronary artery. The insufficient blood supply will lead to myocardial ischemia[1], and it can lead to remodeling of the patient's ventricle. Furthermore, if the contractile force continuously lacking, this episode will lead abnormal electrophysiological activity of the cardiomyocytes, arrhythmia, and heart failure. This will affect the patient's life quality and detrimental to patient's health.[2]. This study focused on the analysis of Danhong injection combined with magnesium polarized solution and nitrate ester for coronary heart disease. The specific results are reported as follows.

1 Materials and methods

1.1 Clinical data

To study the treatment of coronary heart disease, the hospital selected the treatment method mainly through the combination of the three drugs to show the corresponding clinical effects. The research method is mainly carried out by comparative analysis. The hospital follows patient-oriented principle and fully respects the patient's will. Therefore, the patients are all volunteers to participate in the investigation. A total of 58 patients with coronary heart disease were selected as the subject of this study and group them for comparative analysis. The number of patients in each group is 29 peoples and divided into observation group and control group, respectively. The time frames for patient-selected cases are from September 2017 to 2018 among the observation groups. The number of males

was higher than females, 17 males and 12 females. The maximum age was 80 years, the minimum age was 46 years, and the median age was 63.15 ± 3.43 years old; 20 patients with acute myocardial infarction and nine patients with non-acute myocardial infarction. The number of male patients in the control group was higher than female patients. There were 18 males and 11 females. The maximum age was 79 years old, the minimum age was 45 years old, and the median age was 63.09 ± 3.24 years old; 19 patients with acute myocardial infarction and 10 patients with non-acute myocardial infarction. When the above data were compared, no significant difference was found.

1.2 Methods

First, the same drug treatment was used for the two groups of patients including aspirin and metoprolol tablets, aspirin was taken 100 mg/day and metoprolol tablets were taken 25–100/per day. Secondly, patients should be given Lipitor, taking 20mg each time in the evening. Finally, the patient was injected subcutaneously with low-molecular-weight heparin, a total of 5000 U, once every 12 hours, the course of treatment was 5 to 7 days. If the patients have an acute myocardial infarction, the patient can be prescribed with Plavix and urokinase thrombolysis orally.

On this basis, the control group was mainly treated with nitroglycerin injection, and 5 ml of nitroglycerin was added to 250 ml of physiological saline, and an intravenous infusion was performed once a day. The observation group was mainly treated with Danhong injection combined with magnesium polarizing solution and nitrate ester. 30 ml Danhong injection was added to 250 ml saline, and intravenous drip was added to add 25 ml 10% of isosorbide mononitrate injection. In a 250 ml glucose injection, an additional 10 ml of magnesium sulfate injection and 5 ml of potassium chloride injection were intravenously instilled once a day. The course of the treatment for both groups of patients was 7–14 days.

1.3 Observation indicators

The main purpose of this study is to clarify the effective drugs for the treatment of coronary heart disease. This study is aimed at the study of Danhong injection combined with magnesium polarized solution and nitrate ester. The main method used is the observation group and the control group was investigated by contrast. The control group was mainly treated with nitroglycerin injection. The observation group was mainly treated with Danhong injection combined with magnesium polarized solution and nitrate, followed by clinical trials in the two groups. The therapeutic effect, total cholesterol, and endothelin data before and after treatment finally lead to conclusions.

1.4 Statistical analysis

The Statistical Package for the Social Sciences 17.0 software is the tool used to test the data involved. The tools used to measure the relevant data (mean ± standard deviation) and t-test is performed. The application (%) indicates the count and the X^2 test is performed. It can be compared when $P < 0.05$.

2 Results

2.1 Comparison of clinical effects

In contrast, the clinical treatment effect of the observation group was much higher than control group as shown in Table 1.

2.2 Comparison of total cholesterol and endothelin before and after treatment

The two groups of patients had significant differences in adverse reactions such as bradycardia, blood pressure drop, and dizziness as shown in Table 2.

3 Discussion

The pathogenesis of coronary heart disease is mainly due to partial dysfunction in the coronary arteries, which leads to coronary atherosclerosis or plaque and rupture[3], resulting in the accumulation of platelets all together, increasing adhesion and aggregation. The result is a thrombus in the patient and impeded blood flow. In addition, it can also stimulate the patient's coronary artery, leading to coronary spasm, which hinders the patency of the lumen[4]. The treatment of coronary heart disease is mainly through intensive treatment of internal medicine, which mainly starts from reducing platelet aggregation, including anticoagulation, lipid regulation, crown expansion, diuresis, and cardiac therapy[5], and currently mainly through nitrate esters. Classes and receptor blockers are used to treat myocardial ischemia, but studies have shown that the clinical effects of nitrate-based drugs are poor, and there are many adverse reactions, so other effective drugs should be used for treatment[6].

In this study, the total effective rate of the observation

Table 1. Comparative analysis of clinical effects

Group	Significant effect	Effective	Invalid	Total efficiency
Observation group (n=29)	17 (58.62%)	10 (34.48%)	2 (6.90%)	27 (93.10%)
Control group (n=29)	8 (27.59%)	12 (41.38%)	9 (31.03%)	20 (68.97%)
X^2				5.4971
P				0.0190

Table 2. Comparison of total cholesterol and endothelin before and after treatment

Group	Total cholesterol before treatment	Total cholesterol after treatment	Endothelin before treatment	Endothelin after treatment
Observation group	5.77±0.87	4.62±0.79	58.59±7.34	45.39±5.94
Control group	5.81±0.79	5.49±0.39	58.41±6.38	54.26±5.29
T	0.1833	5.3178	0.0997	6.0053
P	>0.05	<0.05	>0.05	<0.05

group was 93.10% and that of the control group was 68.97%. It can be seen that the observation group was significantly higher than the control group. In addition, the total cholesterol and endothelin data before and after treatment in the observation group were 5.77 ± 0.87, 4.62 ± 0.79, 58.59 ± 7.34, and 45.39 ± 5.94, and the corresponding data of the control group were 5.81 ± 0.79, 5.49 ± 0.39, 58.41 ± 6.38, and 54.26 ± 5.29, the observation group was superior to the control group, and the difference was obvious.

In summary, Danhong injection combined with magnesium polarized solution and nitrate ester treatment of coronary heart disease has a good effect, it is worth further clinical application.

References

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