

Study on the effect of clopidogrel on the treatment and psychological state of patients with coronary heart disease

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ABSTRACT

This study analyzed the therapeutic effect of clopidogrel on patients with coronary heart disease and its influence on their psychological state. The subjects of this study were CHD patients from January 2023 to August 2024, who were divided into average groups by random grouping method. 40 CHD patients were treated with aspirin in the control group, and 40 patients in the observation group were treated with clopidogrel. The therapeutic effects and psychological status of the two groups were compared and analyzed. The incidence of adverse reactions in observation group was lower than that in control group, the difference was statistically significant ($P < 0.05$). The treatment effective rate of observation group was higher than that of control group, the difference was statistically significant ($P < 0.05$). The psychological scores of patients in the observation group were lower than those in the control group after nursing intervention, and the difference was statistically significant ($P < 0.05$). The treatment effect of clopidogrel in patients with coronary heart disease is better, and is conducive to improving the psychological state of patients, and can effectively reduce the incidence of adverse reactions in patients, which is worthy of clinical promotion.

KEYWORDS

Coronary heart disease; Clopidogrel; Therapeutic effect; Mental state

Coronary heart disease (CHD) is a serious cardiovascular disease that threatens human health in clinical practice. The main pathological mechanism of CHD is vascular stenosis or obstruction caused by coronary atherosclerosis, which leads to myocardial ischemia and hypoxia. In recent years, with the change of lifestyle and the aging of the population, the incidence of coronary heart disease in China has increased year by year, and it has become one of the most common types of cardiovascular diseases. Coronary heart disease has a serious impact on the quality of life and mental health of patients, and patients not only have to face physical pain in the long-term treatment process, but also bear psychological pressure [1]. Studies have shown that the psychological state of patients with CHD is of great significance to the development and prognosis of the disease. Therefore, it is of great significance to pay attention to the psychological state of patients with CHD and explore the influence of treatment methods on their psychological state to improve the quality of life and treatment effect of patients. The application of clopidogrel can inhibit platelet activation and reduce thrombosis, thus reducing the risk of cardiovascular events [2]. In recent years, clopidogrel has been used more and more widely in the treatment of coronary heart disease, and has become one of the important anti-platelet drugs in the treatment of coronary heart disease. However, the study on the effect of clopidogrel on the treatment effect and psychological state of patients with coronary heart disease is still insufficient [3]. The purpose of this study was to explore the effects of clopidogrel on the therapeutic effect and psychological state of patients with

coronary heart disease, and to provide evidence for clinical treatment. The specific situation is reported as follows.

1 Data and methods

1.1 Basic Information

The research objects included in this study were 80 patients with coronary heart disease from January 2023 to August 2024, who were divided into two groups on average, with 40 patients in each group. The basic data of the two groups were compared and analyzed. The results were as follows: In the control group, there were 26 males and 14 females, aged 52 ~ 76 years old, with an average age of (66.58 ± 5.08) years old; In the observation group, there were 28 males and 12 females, ranging in age from 58 to 79 years old, with an average age of (68.99 ± 9.85) years. There was no statistical difference in the basic data between the two groups, which could be compared ($P > 0.05$).

Inclusion criteria: ① The patients were clinically diagnosed with coronary heart disease; ② The patients had complete basic data and normal cognitive function when enrolled in the study; ③ The patient had no history of allergy to the drugs used in this study.

Exclusion criteria: ① patients with immune function disease or malignant tumor disease; ② Patients with combined diseases will affect the comparative analysis results of this study, there are disturbing factors; ③ The basic data of the patients were incomplete or they withdrew from the study.

1.2 Research Methods

In this study, the two groups of patients need to carry out routine treatment and intervention measures before drug treatment, such as the application of effective intervention to promote patients' water and electrolyte balance or reduce blood pressure.

In this investigation, the control group was treated with aspirin orally. The selected drug was aspirin enteric-coated tablet (Bayer HealthCare Manufacturing S. r. l.; National medicine approval number J20171021; Specification 0.1g), the patient should take 100mg orally once a day, before going to sleep at night, and the patient should take it for 28 days.

Patients in the observation group were treated with oral clopidogrel during treatment, and the selected drug was clopidogrel bisulfate [manufacturer: Sanofi (Hangzhou) Pharmaceutical Co., LTD.; Sinopod H20056410; specification 75mg], and 300mg was taken each time, once a day, three days before treatment. Starting from the fourth day of treatment, the dose was adjusted to 75mg once a day for 28 days.

1.3 Observation Indicators

The observation indicators in this investigation and study were the treatment of patients with coronary heart disease in the two groups, and the specific observation indicators were as follows:

① Incidence of adverse reactions in patients with coronary heart disease in the two groups: The specific situation of adverse reactions such as diarrhea and gastrointestinal bleeding in patients in the two groups during treatment was statistically analyzed, and the incidence of adverse reactions was calculated.

② Effective rate of clinical treatment of patients with coronary heart disease in the two groups: grade evaluation was conducted according to the improvement of patients' symptoms, and the

therapeutic effect of patients was analyzed. If the clinical symptoms of the patient disappeared completely, and the incidence of coronary heart disease was significantly improved, the treatment was effective. If the patient's clinical symptoms have been significantly improved, and the incidence of disease has been greatly reduced, the treatment is effective. If the patient's clinical symptoms and seizures are not effectively improved after treatment, the treatment is ineffective.

(3) The psychological status of patients with CHD in the two groups: Self-rating anxiety scale (SAS) and Self-rating depression scale (SDS) were applied to assess the psychological status. The higher the score, the more serious the psychological status.

1.4 Statistical Methods

SPSS22.0 statistical software was used for data analysis, measurement data were expressed as ($\pm s$), and T-test was used for comparison between groups. Statistical data were expressed as percentages and chi-square test was used for comparison between groups. $P < 0.05$ was considered to be statistically significant.

2 Results

2.1 Incidence of adverse reactions in patients with coronary heart disease in the two groups

The incidence of adverse reactions in the observation group was lower than that in the control group, with a statistically significant difference, as shown in Table 1 ($P < 0.05$).

Table 1 Incidence of adverse reactions in patients with coronary heart disease in the two groups [n (%)]

group	n	diarrhea	vomit	Gastrointestinal hemor- rhage	Incidence of ad- verse reactions
Control group	40	3(7.50)	3(7.50)	2(5.00)	8(20.00)
Observation group	40	1(2.50)	0(0.00)	0(0.00)	1(2.50)
χ^2 value	-				10.143
p -value	-				0.002

2.2 Treatment effectiveness of patients with coronary heart disease in the two groups

The treatment effective rate of patients in the observation group was higher than that in the control group, with a statistically significant difference, as shown in Table 2 ($P < 0.05$).

Table 2 Treatment effectiveness of patients with coronary heart disease in the two groups [n (%)]

group	n	remarkable	effective	In vain	Therapeutic effectiveness
Control group	40	14(35.00)	20(50.00)	6(15.00)	34(85.00)
Observation group	40	21(52.50)	18(45.00)	1(2.50)	39(97.50)
χ^2 value	-				7.683
p -value	-				0.023

2.3 Psychological status scores of patients with coronary heart disease in the two groups

The psychological scores of depression and anxiety in the observation group were lower than those in the control group, with significant statistical differences, as shown in Table 3 ($P < 0.05$).

Table 3 Psychological status scores of patients with coronary heart disease in the two groups (score)

group	n	SAS		SDS	
		治疗前	治疗后	治疗前	治疗后
Control group	40	59.23±1.15	43.72±0.98	62.45±2.21	43.26±1.15
Observation group	40	59.38±1.37	36.50±0.67	63.12±2.10	32.01±1.42
<i>t-value</i>	-	0.053	6.973	0.272	8.816
<i>p-value</i>	-	0.819	0.028	0.603	0.019

3 Discussion

Coronary heart disease is a cardiovascular and cerebrovascular disease with a high incidence in clinical practice. The full name of this disease is coronary atherosclerotic heart disease. As the name implies, patients with this disease will have serious cardiovascular and cerebrovascular problems, which will worsen and lead to other adverse consequences if not treated in time and effectively, and even affect the life of patients [4]. The coronary arteries of patients with CHD will show different degrees of atherosclerosis, which may lead to the stenosis or even serious occlusion of relevant blood vessels, resulting in serious adverse consequences such as myocardial ischemia or myocardial necrosis in patients. Most of these patients not only suffer from a single disease, but also suffer from diseases such as hypertension or diabetes [5]. Epidemiological survey results show that the majority of patients with coronary heart disease are older elderly patients, long-term smokers and obese people are more likely to suffer from this disease, and the incidence of male patients is higher than that of female patients [6]. At present, the clinical manifestations of patients with coronary heart disease are relatively diverse, but mainly chest pain and chest tightness, and the vast majority of patients will also show arrhythmia and dyspnea and other clinical symptoms, and in serious cases, it will lead to heart failure and cardiac embolism and other serious complications, which have a serious threat and influence on the life health and safety of patients. In addition, research shows that patients with coronary heart disease are affected by the disease and will have certain adverse psychological emotions, which will affect their personal psychological state. For example, some patients with coronary heart disease will be in anxiety or excessive pressure and other emotions for a long time, which will affect their sleep and immunity, which is not conducive to follow-up treatment.

Coronary heart disease is a serious cardiovascular disease in clinical practice. The treatment of patients with coronary heart disease not only requires drug intervention, but also requires patients to develop good living habits and eating habits. Therefore, healthy lifestyle and diet structure are of great significance for the treatment and rehabilitation of coronary heart disease. The application of clopidogrel as an antiplatelet drug in the treatment of coronary heart disease has attracted more and more attention [7]. Studies have found that clopidogrel can significantly shorten the treatment time of patients. In clinical practice, clopidogrel is a commonly used drug for the treatment of coronary heart disease, just like aspirin. Studies have shown that clopidogrel can quickly play its role and shorten the treatment time, which is particularly important for acute coronary syndrome and other emergency situations [8]. At the same time, clopidogrel can reduce the incidence of adverse reactions. When applied, clopidogrel can inhibit the coagulation of platelets and reduce the formation of thrombosis, thus reducing the risk of adverse reactions such as myocardial infarction and stent thrombosis. Meanwhile, clopidogrel can also promote the movement of macrophages and help remove lipid plaques in blood vessels, further reducing the occurrence of adverse reactions [9]. In addition, clopidogrel helps to promote the development of patients' mental health. Compared with aspirin, clopidogrel has a milder therapeutic effect and less impact on patients' psychology. Patients can better control anxiety, depression and other negative emotions during the treatment of clopidogrel, thus reducing the adverse impact of psychological state on disease recovery. Studies

have shown that the improvement of psychological state has a positive effect on the treatment and prognosis of coronary heart disease [10]. Overall, these advantages of clopidogrel make it an important choice for the treatment of coronary heart disease, but it is worth noting that the use of clopidogrel is not without risks, and the drug may also cause some adverse reactions, such as increased bleeding tendency, so the use of clopidogrel needs to be personalized according to the specific situation and history of the patient.

This study conducted an in-depth analysis of the clinical effect of clopidogrel in patients with coronary heart disease, and the results showed that the probability of adverse reactions such as diarrhea and gastrointestinal bleeding after clopidogrel treatment in the observation group was significantly lower than that in the control group ($P < 0.05$). This result indicated that clopidogrel had an advantage in reducing treatment-related adverse reactions. It is helpful to improve the tolerance and safety of patients. In terms of clinical effect, the clinical effect of the observation group treated with clopidogrel was significantly better than that of the control group ($P < 0.05$), indicating that clopidogrel can more effectively improve the clinical symptoms of patients with coronary heart disease and improve the therapeutic effect, which is of great significance for the quality of life and disease rehabilitation of patients. In terms of psychological status, this study found that CHD patients treated with clopidogrel had lower scores for depression, anxiety and other psychological states, indicating that clopidogrel treatment could not only improve the physiological status of patients, but also reduce the psychological burden of patients and contribute to the development of patients' mental health.

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