

# To Explore the Effect of Predictive Nursing in the Prevention of Postoperative Depression in Patients with Coronary Heart Disease

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**Abstract:** Objective: To analyze the effect of predictive nursing intervention on anxiety and depression in patients with coronary heart disease after interventional therapy and to summarize nursing experience. Methods: From May 2015 to November 2016, 106 patients with coronary heart disease were treated with interventional therapy. According to the nursing methods, 53 cases were selected and the control group was treated with traditional routine nursing. Routine nursing + predictive nursing intervention, SAS and SDS assessment scale were used to evaluate the anxiety and depression status of the two groups. The improvement of psychological problems after nursing was analyzed and the incidence of complications was compared. Results: After intervention, the scores of SAS and SDS were decreased, but the observation group decreased more significantly than the control group, the improvement trend was prominent, the quality of life was significantly improved and the incidence of complications was lower ( $P < 0.05$ ). Conclusion: The use of predictive nursing for patients with coronary heart disease after interventional therapy in patients with psychological disorders can be effective targeted intervention, greatly improve the patient's anxiety, depression and other psychological state, and the psychological state of the current abnormalities were not given preventive intervention. Preventive measures should be taken to prevent postoperative adverse events, improve the prognosis, the effect is indeed worthy of promotion.

**Keywords:** predictive care; coronary heart disease intervention; depression; effect

## Introduction

There are reports confirmed [1-2], coronary heart disease in the presence of physical illness also has a high emotional disorder, manifested as excessive tension, anxiety, depression, etc., for the prognosis and outcome of coronary heart disease by the physiological and psychological state of the double impact. There are foreign patients with coronary heart disease monitoring study [3], at least 80% of patients with varying degrees of anxiety, about 58% of depression, 22% of patients with hostility, some patients showed anxiety, these psychological factors to disease development critically, overly psychological burden will aggravate the condition, seriously affecting the prognosis of the disease. At present, PTCA and stent implantation is one of the important means of treatment of heart disease. Although the cure rate has been greatly improved, the patients have different understanding of the treatment, so there are different levels of anxiety, depression and other psychological state, reduce the quality effect and prognosis.

## 1 Materials and methods

### 1.1 General information:

Retrospective analysis of 106 cases of coronary heart disease interventional therapy, 56 males and 50 females, aged

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46-72 years, mean ( $62.3 \pm 3.4$ ) years old, NYHA heart rate grade I - II , the presence of interventional indications, combined with severe heart failure, coma or arrhythmia and severe cardiac dysfunction, coagulation disorders are not in the scope of this study. The two groups in the data, disease and other differences were not statistically significant, balanced and comparable.

## **1.2 Methods**

Routine care in the control group, observation group routine + predictive care intervention, as follows:

### **1.2.1 Preoperative care:**

Explain to patients and their families about the incidence of coronary heart disease, development and prognosis, and intervention in the treatment of technical characteristics, including high safety, low risk and better prognosis to give a detailed solution to improve patient awareness [4-5]. Inform the detailed operation, invite patients to visit the catheter room, explain in detail the note, but also by explaining the successful treatment of cases, to lifting of patients with concerns, eliminate tension, anxiety and other negative emotions, to give more encouragement and support, establish a good mental preparation.

### **1.2.2 Postoperative care:**

Postoperative psychological problems are common postoperative phenomenon, usually patients with preoperative and intraoperative mental tension caused by postoperative fatigue and postoperative wound healing process of tissue growth pain, resulting in patients with suspicion of surgery , increase the psychological burden<sup>[6-8]</sup>, so for the first time after surgery to inform the possibility of discomfort and complications, and told that all kinds of preventive measures have been made to make patients relax, have problems in a timely manner to communicate, eliminate negative emotions, need to closely observe the mood swings and nighttime sleep, ask the family to give more care to help adjust the mentality of the patient, to be positive and optimistic after the postoperative response period.

### **1.2.3 Complications Nursing:**

When arrhythmia occurs, should immediately provide oxygen mask to the patient, the timely opening of the vein pathway, if necessary, the implementation of ECG defibrillation [9]. Stent implantation often prone to acute coronary occlusion, coronary vasospasm and acute myocardial infarction and other complications, care should be strengthened on patrol, inform the patients if the heart pain or physical discomfort and other signs, should promptly call for help and take drugs and other symptomatic treatment, to avoid deterioration. May be appropriate to give analgesics to relieve pain and irritability, while actively preparing for emergency surgery.

## **1.3 Observation indicators:**

① SAS, SDS to assess the psychological state [10] divided into four levels, the cumulative score of each item, the higher the score, anxiety, and depression is also more obvious. ② The quality of life was assessed by WHOQOL-100 scale, including physical function, psychological function, independence and social relationship [11].

## **1.4 Statistical methods:**

The use of SPSS17.0 software processing, measurement data ( $x \pm s$ ) said that the count data expressed in %, between groups with t,  $\chi^2$  test,  $P < 0.05$  difference was statistically significant.

## 2 Results

### 2.1 Analysis of the two groups after care SAS, SDS score situation. See Table 1.

Table 1 comparison of the SAS and SDS scores of the two groups before and after the intervention

Group	SAS score		SDS score	
	Before intervention	After intervention	Before intervention	After intervention
Observational group	58.2±3.4	45.3±2.1	58.3±4.1	43.2±5.2
Control group	57.9±3.2	50.2±2.5	58.5±4.4	49.6±4.8
t	0.421	4.672	0.443	3.992
P	>0.05	<0.05	>0.05	<0.05

### 2.2 Analysis of WHOQOL-100 on the quality of life assessment of the two groups. See Table 2.

Table 2 comparison of the quality of life scores in both groups

Group	Physical function	Psychological function	Independent	Social relationship
Observational group	50.2±3.8	51.3±3.4	69.8±3.5	53.2±3.4
Control group	34.5±3.2	35.1±4.0	53.7±3.4	36.5±2.8
t	8.430	7.892	8.772	7.025
P	<0.05	<0.05	<0.05	<0.05

### 2.3 Analysis of complications during treatment. See Table 2.

Table 3. The incidence of complications during the two groups was compared

Group	Arrhythmia	Coma	Heart failure	Cataract hematoma	Infection	Total incidence
Observational group	2	1	0	1	1	5 (9.4)
Control group	6	1	3	2	4	16 (30.2)
X <sup>2</sup>						6.340
P						<0.05

## 3 Discussion

In recent years, the incidence of coronary heart disease in China was increasing year by year, more and more patients benefit from the treatment. Studies have found that [12-14], many patients due to surgery on the body damage and postoperative stent is invalid or displaced, preoperative patients with anxiety, depression and other negative emotions, and postoperative psychological disorders may be more obviously, resulting in patients with depression and even suicide and other psychological disorders. There are domestic reports [15-17], patients due to lack of medical knowledge, nervous, anxiety and other negative emotions, psychological disorders will cause physical disorders, a series of

endocrine abnormalities and changes in hemodynamic changes, aggravate the condition. At the same time the current medical status, medical staff more concerned about the body treatment, disease eradication, failure to timely psychological intervention, resulting in a lower prognosis. Wang Fang, Xu Chunling and other studies confirmed<sup>[18]</sup>, for patients with coronary heart disease intervention before and after taking effective psychological intervention can significantly improve the psychological state, the synergistic effect of treatment, can effectively improve the quality of life and prognosis.

The results showed that the scores of SAS and SDS in the observation group were significantly lower than those in the control group ( $P < 0.05$ ). The incidence of arrhythmia, percutaneous hematoma, coma and other adverse events was lower than that of the control group. Observational group shown reduce the pain of patients, and postoperative quality of life score is high, the prognosis is good,  $P < 0.05$ . This is consistent with previous studies [19-20]. This study on the preoperative and postoperative intervention, preoperative foreseeable medical knowledge, eliminate doubts, to maintain a good mental state, postoperative adverse events may occur, in advance to inform and timely treatment, the patient anxiety and other negative emotions strangulation in the bud, is conducive to positive attitude of patients, conducive to disease treatment and rehabilitation.

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