Effect of Continuous Nursing Intervention on Psychological State and Medication Compliance of Patients with Acute Myocardial Infarction after PCI

Dongyan Wei

The First Hospital of Fangshan, Beijing, 102400, China

Abstract: Objective: To explore the effect of continuous nursing intervention on psychological status and medication compliance of patients with acute myocardial infarction after PCI operation. Methods: from February 2013 to September 2016, 102 patients with acute myocardial infarction treated by PCI were selected and divided into two groups, 51 cases in each group according to the different nursing methods. The observation group was added continuous nursing on the basis of routine nursing, while the control group was the usual nursing mode. The mental state of the two groups before and after treatment was evaluated, and the patients were followed up for 6 months after discharge. The compliance of the two groups at 1, 3 and June after discharge was statistically analyzed. Results: before nursing, there was no significant difference in the mental state evaluation between the two groups ($P > 0.05$). After nursing, the mental status of the two groups was improved, while the psychological state of the observation group was better than that of the control group ($P < 0.05$). After 6 months' follow-up, there was no significant difference in the compliance rate between the two groups at 1 months after discharge ($P > 0.05$). In 3 and June, the compliance of the patients in the observation group was better than that in the control group ($P < 0.05$). Conclusion: continuous nursing intervention for patients with acute myocardial infarction after PCI can effectively adjust the unhealthy psychological state of patients, improve medication compliance and promote early rehabilitation of patients.

Keywords: Acute myocardial infarction; Postoperative PCI; Continuous nursing; Clinical effect

Corresponding Author: Dongyan Wei, 13808934544@139.com

Author's Information: Dongyan Wei, female, born in 1972, works in The First Hospital of Fangshan. Address: Fu Sheng Home, Fangshan District, Beijing. Title: Nurse-in-charge, engaged in cardiovascular care for 15 years.

1. Introduction

Acute myocardial infarction is caused by acute and persistent ischemic anoxia caused by myocardial necrosis. Data show that[1-2], the proportion of acute myocardial infarction in coronary heart disease mortality is about 69%, and often accompanied by arrhythmia, shock and heart failure, which seriously threaten the life of patients. At present, the application of PCI in the treatment of acute myocardial infarction can quickly open the pathological blood vessels, restore the normal blood supply of the myocardium, save the dying myocardium and improve the myocardial function, and it can effectively reduce the mortality of cardiomyopathy. Studies have shown that[3] is stable after six months of treatment for acute myocardial infarction. After six months, it is all the recovery period after myocardial infarction. If there are psychological factors, poor behavior and bad lifestyle, all of them can induce the risk of adverse cardiac events. Continuous nursing mode is a widely used form of nursing. This mode can provide a more comprehensive guarantee for the rehabilitation of acute myocardial infarction, and the long-term effect is worth affirming.

2. Information and Methods

2.1 General Data

General data: a retrospective analysis of 102 cases of acute myocardial infarction after PCI in patients with clinical data, 52 cases were male, 50 were female, aged 36-72 years old, the average (54.73 + 4.22) years old, into objects are in line with ST segment elevation myocardial infarction or acute non ST elevation myocardial infarction, there were PCI treatment the indications of surgical treatment of perioperative patients without serious complications, postoperative blood flow of TIMI was grade 3. To exclude more than 4 levels of cardiac function, complicated organ dysfunction and poor consciousness, and those with immune system diseases. This study was approved by our ethics committee. After statistical analysis, the P value of patients in the group was over 0.05 after comparing their age structure and sex ratio.

2.2 Research Methods

Research methods: Two groups were treated with conventional nursing, after admission to closely monitor patient vital signs including blood pressure and heart rate changes, observe whether the skin ecchymosis, regular examination. Pay attention to the emotional changes of the patients, strengthen communication with the patients and their families, give them comfort and support, and eliminate the anxiety and irritability of the patients. Instruct the patient to eat a reasonable diet, eat more quality protein, light diet, advise the patient to take care of rest, exercise properly, and ask for a regular review before discharge. The observation group was based on the continuation of the nursing, which was as follows.

2.2.1 Establishment of Continuing Nursing Team

The establishment of continuing nursing team: 1 nurses as leader, and make nursing plans, set up management team including the responsibility of doctors and nurses in 1, charge nurse and health guidance 1, regular review meeting, to summarize the experience of nursing, nursing does not regularly carry out relevant training work.

2.2.2 Continuity Nursing

Continuity nursing: (1) Regular home visits: to understand patients recovered and prescribed medication, recurrent cardiovascular events, and to give guidance and correct, to understand the psychological state of patients with, according to the patients' concern, to give the corresponding solutions to eliminate the adverse effects of emotion, can guide the patients to listen to such as relaxation training music, Tai Chi, encourage family members to participate in, make patients feel the support from family, also can guide the families of some common and simple remedies such as cardiopulmonary resuscitation, just in case. After visiting the hospital, the doctor visits home once a week for 15-30 min. After 3 months, it can be once a month, and then it can be paid 1 times a month. Pay attention to interspersing with the phone call to get the best result in 3 months. (2) Telephone follow-up: after discharge, we need to do 1 times a week in order to better grasp the patient's condition, mental state and problems during recovery, so that patients can get timely feedback and adjust the treatment plan better. Take care to cooperate with home visits. (3) Health education: the need to organize monthly 1 education activities, lectures can be experienced by the expert of Department of Cardiology, can also open exchanges, the difficult problems to explain and inform the patients with acute myocardial infarction, etiology, mechanism of occurrence and development of the new treatment and prognosis of patients. The importance of medication compliance, including the clinical significance and method of taking PCI postoperative antiplatelet agents, statins and other drugs, inform the unreasonable harm to use, and give the record of the patient, good guidance and supervision of the patient to do scientific medicine, taking into the mouth, to avoid the patient clothes or leak clothing, etc. The brochures can not be issued regularly to strengthen self health care and management. (4) Establish a network communication platform: encouraging patients and their families to participate actively in the network communication, pay attention to the latest research dynamic platform for treatment, and according to the patients to account, can timely remind and help patients according to treatment through the platform, such as to remind patients and referral inspection items including blood, liver and kidney function, electrocardiogram.

2.3 Observation Index and Evaluation Standard

1) The psychological state of[4] using the self rating Anxiety Scale (SAS) and self rating Depression Scale (SDS) assessment, each containing 20 items, according to the frequency of 4 grade, value of 1-4, the total sum of scores for each item, the higher the score of anxiety and depression is more obvious.

2) Medication compliance: record the compliance of the patients within 6 months after discharge from the hospital, and evaluate the patients with the self-made compliance questionnaire in our hospital. The contents include regular daily dosing, dose control, frequency and long-term adherence.

2.4 Statistical Method

Statistical method: using SPSS17.0 software for statistical analysis, measurement data (x + s), t test, count data%, x^2 test. If a = 0.05, P < 0.05, the difference was statistically significant.

3. Results

3.1 Analysis of Psychological State

Analysis of the psychological state of the two groups before and after nursing. Before nursing, the two groups had higher mental status scores and no significant difference. After nursing, the mental status scores of the two groups all decreased, and the observation group decreased more significantly. P < 0.05., See Table 1.

Table 1. Comparison of SAS and SDS scores before and after nursing in two groups (x + s)Compared Group

Group	SAS Rating		SDS Rating	
	Prenursing	Postnursing	Prenursing	Postnursing
Obser-ration Group（n=51）	46.82±8.02	32.03±5.43	49.88±7.63	34.85±3.03
Com-pared Group（n=51）	46.59±8.11	39.44±5.09	49.47±7.03	42.01±2.97
t Value	0.063	7.023	0.239	16.802
P Value	＞0.05	＜0.05	＞0.05	＜0.05

3.2 Compliance of the Two Groups

The compliance of the two groups during the treatment period was analyzed. There was no significant difference in medication adherence between the two groups at the 1 month follow-up period, but there was a significant differ-

ence in the compliance between the two groups at 3 and 6 months, $P < 0.05$. See Table 2.

Table 2. the difference of medication compliance during the treatment of two groups was [n (%)]

Group	n	One Month	Three Months	Six Months
Observation Group	51	49 (96.08)	47 (92.16)	44 (86.27)
Compared Group	51	48 (94.12)	40 (78.43)	32 (62.75)
x^2		0.672	5.663	12.308
P		> 0.05	< 0.05	< 0.05

4. Conclusion

Acute myocardial infarction is the main cause of disease and death of coronary heart disease, and the risk coefficient is high. At present, the clinical treatment is mainly through coronary intervention. If treated in time, it can quickly open the infarcted blood vessels, relieve infarcted myocardium and improve the prognosis of patients. It is one of the main means to treat coronary heart disease. It has been reported that[5], the universal compliance compliance situation of poor myocardial infarction after PCI patients after discharge, which leads to the disease treatment effect is not very satisfactory, the possible reasons and patient awareness of PCI treatment after myocardial infarction is low and the lack of related knowledge of medication. Other studies have pointed out that[6], acute myocardial infarction patients have different degree of anxiety, depression and other psychological disorders. The practice research pointed out that the bad psychological emotions can aggravate the platelet aggregation caused by abnormal blood pressure and blood lipid, and induce atherosclerosis, myocardial infarction recurrence and other serious adverse events, while myocardial infarction disease itself can increase depression in patients with.[7] Therefore, we need to pay more attention to the nursing of PCI after myocardial infarction, and eliminate the aggravating factors, such as poor medication compliance and mental disorders, so as to improve the prognosis of patients.[8]

Continue nursing care after hospitalization following is an effective extension mode at the end of,[9] the hospital nursing can continue to provide effective care guidance for patients, through regular home visits, telephone follow-up and organizing educational activities, let patients in the recovery period to solve problems in a timely manner, and improve the patients cognition of the disease and the treatment of PCI the prescribed medication on time and maintain a good attitude and way of life, accelerate the rehabilitation of patients, to reduce the incidence of adverse events.[10]

The results of this study, before nursing, the results of the SAS and SDS scores of the two groups were not significantly different, and there were different degrees of psychological disorders. After nursing, the psychological state of two groups of evaluation were improved, the observation group SAS score and SDS score decreased more significantly, $P < 0.05$. after discharge follow-up, the two groups in the 1 months after discharge, there was no significant difference between the two groups of medication compliance, great part has good compliance, and in 3, 6 in November, the compliance of the observation group was significantly better than the control group, $P < 0.05$. shows that the continuity of care plays a positive role in the rehabilitation treatment of acute myocardial infarction after PCI, in improving the mental state of patients, medication at the same time, to ensure the clinical effect of rehabilitation, is worthy of promotion.

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