The Effect of Preventive Care and Rehabilitation Nursing on Elderly Hypertension

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Abstract: Objective: To improve the effectiveness of elderly hypertension care, this research applied preventive care and rehabilitation nursing in clinical nursing to clarify their impact on elderly hypertension. Methods: A total of 95 elderly hypertensive patients who received diagnosis and treatment in the hospital during the period of January 2023 to December 2023 were analyzed. They were divided into a control group (49 cases) and an observation group (46 cases) in order of diagnosis and treatment. The patients in the control group were implemented conventional care methods, and the patients in the observation group using preventive care and rehabilitation nursing, the intervention effect between the two groups were analyzed. Results: Compared with the control group, in terms of clinical indicators and blood pressure and blood lipids, the observation group had lower values (P<0.05). In terms of healthy behavior, the observation group had higher values (P<0.05). Conclusion: Implementing preventive care and rehabilitation nursing in clinical nursing can have a positive impact on elderly patients with hypertension, which is beneficial for stabilizing clinical indicators, blood pressure indicators, blood lipid indicators, thus improving patients' health behavior.

Keywords: hypertension; preventive healthcare; rehabilitation nursing

1. Introduction

Compared with other age groups, the elderly are more prone to chronic diseases, especially the high incidence rate of hypertension in recent years, which increases the difficulty of treatment to a certain extent. In clinical practice, medication is mainly used to help elderly patients with hypertension control their condition. In actual treatment, corresponding nursing measures need to be taken to ensure the nursing effect and provide assurance for the stability of the patient's condition[1]. From the perspective of clinical practice, the nursing of elderly hypertensive patients will be carried out using conventional methods. Although it is beneficial for the treatment work, it cannot effectively improve the nursing effect and cannot meet the rehabilitation needs of patients[2]. The research goal of the article is to improve the effectiveness of elderly hypertension care, and to apply preventive and rehabilitation care in clinical nursing, clarifying their impact on elderly hypertension. It is hoped that it can provide reference for nursing research related to elderly hypertension, as follows.

2. Materials and methods

2.1 General information

A total of 95 elderly hypertensive patients who received diagnosis and treatment in the hospital during the period from January 2023 to December 2023 were analyzed. They were divided into a control group (49 cases) and an observation group (46 cases) in order of diagnosis and treatment. In terms of age range, the two groups had an age range of 62 years ≤ 84 years, with a mean of (67.43 ± 4.33) years in the observation group and (67.45 ± 4.31) years in the control group. In terms of disease course, the two groups had a disease course of 1 year ≤ 7 years, with a mean of (4.01 ± 0.12) years in the observation group and (3.99 ± 0.10) years in the control group. In terms of gender: there were 28 males and 18 females in the observation group, and 29 males and 20 females in the control group. After processing the relevant data information of two sets of basic data through statistical systems, it was confirmed that the comparability was high (P>0.05). This study was approved by the hospital ethics committee. Selection requirements: Comprehensive clinical diagnosis of hypertension; Complete information. Exclusion requirement: Exit midway.

2.2 Methods

2.2.1 Routine nursing intervention for the control group

Oral communication of medication, diet, and exercise related precautions, reminders to regularly measure blood pressure, closely monitor the patient's condition, promptly detect abnormalities, and take appropriate measures.

2.2.2 The observation group received preventive care and rehabilitation nursing interventions on the basis of the control group

(1) Preventive health care: Adopt medical record explanations, emphasizing the importance of maintaining healthy eating habits, adhering to moderate exercise, and forming healthy lifestyle habits for disease prevention, and improving patient compliance. In terms of diet: Follow the principles of low salt, low fat, and low sugar diet, increasing the intake of vegetables and fruits and reducing the intake of high salt, high fat, and high sugar foods. Daily salt intake should not exceed 6 grams. Reduce the intake of saturated and trans fats, and choose low-fat protein sources such as lean meat, fish, beans, etc. Limit sugar intake and avoid excessive consumption of candies, desserts, and beverages. Maintaining dietary diversity and consuming various nutrients can help maintain physical health and nutritional balance. In terms of exercise: Engage in moderate aerobic exercise, such as walking, running, swimming, or cycling, can help lower blood pressure, improve cardiovascular health, and promote blood circulation. It is recommended to engage in at least 150 minutes of moderate intensity aerobic exercise per week, dispersed to around 30 minutes per day. You can also choose high-intensity aerobic exercise for 75 minutes per week, taking care to avoid excessive exercise. In terms of lifestyle habits: Maintain an appropriate weight, quit smoking and limit alcohol consumption, maintain a regular sleep schedule, avoid staying up late and feeling overly excited, and pay attention to keeping warm and cold.

(2) Rehabilitation nursing: In terms of psychological rehabilitation: Strengthen health education: first provide patients with a health knowledge manual, and then make slides or short videos of key and difficult to understand knowledge. While playing the videos for them, use simple and understandable language to explain and correct patients' disease cognition to the greatest extent possible, so that they can understand the effects that can be obtained after treatment and nursing, and avoid patients being overly worried. Based on the patient's music preferences, play their favorite music and guide them to practice deep breathing, helping them relax their nerves and reduce their psychological burden. Maintain good communication with family members, encourage them to participate in nursing together, provide more companionship to patients, and express their respect and understanding towards patients, helping patients obtain support from family members. Regularly organize patients to participate in communication activities between patients, promote communication and exchange between different patients, and help patients obtain social support. In terms of physical rehabilitation: inform patients in detail about the specific details of drug use, so that patients can use medication in a standardized manner, and inform them of possible adverse reactions and treatment methods after medication, in order to reduce adverse drug reactions. Regularly measure blood pressure, grasp changes in blood pressure, and adjust treatment plans in a timely manner.

2.3 Judgment criteria

(1) Detect and record clinical indicators such as renin, angiotensin, and aldosterone in two groups of patients. (2) Detect blood pressure (systolic blood pressure, diastolic blood pressure) and blood lipids (total cholesterol, triglycerides) in two groups of patients, and compare the mean values. (3) Evaluate the health behavior of two groups of patients using the Health Behavior Assessment Scale. The assessment items include healthy diet, regular exercise, good mentality, and standardized medication, with each item scoring 0-30 points. The higher the score, the better the health behavior.

2.4 Statistical methods

Using SPSS 20.0 software to analyze the data, t and x±s are measures of compliance with normal distribution in continuous variables, chi square and % are count data, P<0.05 indicating statistically significant or valuable.

3. Results

3.1 Clinical indicator analysis

In terms of clinical indicators, the observation group had lower values (P<0.05) compared to the two groups. As shown in Table 1.

Table 1. Comparison of clinical indicators between two groups($\bar{x}\pm s$)

Group	Cases	Renin (μg)	Angiotensin (ng/L)	Aldosterone (pmol/L)
Observation group	46	0.51±0.13	52.11±4.15	358.52±12.53
Control group	49	0.76±0.32	68.53±9.55	386.43±23.68
t		4.929	10.745	7.112
P		0.001	0.001	0.011

3.2 Blood pressure and lipid analysis

In terms of blood pressure and blood lipids, the observation group had lower values (P<0.05) compared to the two groups. As shown in Table 2.

Table 2. Comparison of blood pressure and lipid indicators between two groups($\bar{x}\pm s$)

Group	Cases	Diastolic pressure (mmHg)	Systolic pressure (mmHg)	Total cholesterol (mmol/L)	Triglyceride (mmol/L)
Observation group	46	79.79±4.11	117.98±10.12	3.74±0.55	1.51±0.64
Control group	49	88.65±13.25	135.52±12.96	5.61±0.57	2.10±0.98
t		4.342	7.319	16.253	3.450
P		0.001	0.001	0.001	0.001

3.3 Health behavior analysis

In terms of healthy behavior, the observation group had higher values (P<0.05) compared to the two groups. As shown in Table 3.

Table 3. Comparison of Health Behavior Scores between Two Groups($\bar{x}\pm s$)

Group	Cases	Healthy diet	Regular exercise	Positive mindset	Standardized medication
Observation group	46	28.02±1.12	28.12±1.69	28.12±1.26	28.62±1.03
Control group	49	24.02±0.74	24.10±0.32	24.11±0.29	24.07±0.33
t		20.657	16.347	21.681	29.367
P		0.001	0.001	0.001	0.001

4. Discussion

From the actual situation, elderly hypertensive patients are mainly caused by abnormal changes in blood pressure, blood lipids, and other indicators in the body, leading to diseases. At the same time, the patient's body will also have abnormalities in the three indicators of hypertension, such as renin, angiotensin, and aldosterone. In actual treatment and nursing, it is necessary to pay attention to changes in patient blood pressure, blood lipids, renin, angiotensin, aldosterone and other indicators, providing important references for specific effect evaluation[3].

Preventive healthcare refers to reducing the occurrence and development of diseases and improving the health level of the population through preventive measures. Preventive healthcare includes health education, regular physical examinations, lifestyle management, etc., aimed at preventing the occurrence of diseases[4]. Rehabilitation nursing refers to the treatment and care of patients with illness or disabilities, helping them recover as soon as possible or improve their quality of life. The application of preventive and rehabilitation care in the care of elderly hypertensive patients has the following advantages. Firstly, preventive care can help elderly hypertensive patients effectively control risk factors, such as poor dietary habits, lack of exercise, and unhealthy lifestyle habits. Patients can correctly understand the important impact of diet, exercise, and lifestyle habits on disease prevention and disease control, actively participate in nursing, gradually form healthy diet, healthy lifestyle habits, and moderate exercise habits, reduce the impact of risk factors on the disease, thus preventing hypertension[5]. Secondly, rehabilitation nursing can help elderly patients with hypertension undergo rehabilitation training. Through physical exercise and medication guidance, it can enhance the standardization of medication use, improve the quality of life and physical function of patients, help stabilize the condition, and improve clinical related indicators such as blood pressure and blood lipids. Through psychological rehabilitation, patients can maintain a positive attitude towards their illness, reduce psychological burden, and promote physical and mental health[6]. Thirdly, the combination of preventive care and rehabilitation nursing can form a comprehensive nursing plan, helping elderly hypertensive patients receive effective management and treatment from different stages of the disease. Fourthly, through preventive and rehabilitation care, the risk of complications in elderly hypertensive patients can be reduced, nursing safety and effectiveness can be improved, which is beneficial for improving the quality of life of patients[7]. Based on the research results in the article, in terms of clinical indicators, the observation group had lower values (P<0.05) compared to the two groups. In terms of blood pressure and blood lipids, the observation group had lower values (P<0.05) compared to the two groups. In terms of healthy behavior, the observation group had higher values (P<0.05) compared to the two groups. It is suggested that the application of preventive and rehabilitation care is more effective in elderly hypertensive patients, but the number of research cases in the article is limited and further analysis of its application value is needed.

In summary, implementing preventive care and rehabilitation nursing in clinical nursing can have a significantly positive impact on elderly patients with hypertension, which is beneficial for stabilizing clinical indicators, blood pressure indicators, blood lipid indicators, and improving health behavior. It is of great significance for improving the nursing level of elderly patients with hypertension.

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