

# Influence of time nursing intervention on blood pressure control and quality of life in elderly patients with hypertension

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**Abstract:** Objective To explore the effect of nursing intervention on quality of life in elderly patients with hypertension and control of blood pressure in elderly hypertensive patients. Methods from February 2016 to January 2017 in our hospital 76 cases as the research object, randomly divided into observation group and control group. Two groups were given different nursing programs, support treatment and control group the routine nursing, the observation group in the control group based on the nursing plan for this group of patients with blood pressure in daily 5 time points for dynamic monitoring, to develop individualized therapy according to the fluctuation of blood pressure rhythm and drug action time, including health education, diet refers to life Guide and psychological intervention. Then evaluate the hypotensive effect of two groups of patients, medication compliance and quality of life scores. The results of two groups of patients with different nursing intervention, blood pressure were significantly decreased, the total efficiency of the observation group (97.37%) was significantly higher than the control group (76.36%), the nursing satisfaction of the observation group (92.11%) was significantly higher than the control group (76.31%), the observation group of medication compliance and quality of life score was significantly better than the control group, the difference was significant ( $P < 0.05$ ), there was statistical significance. Conclusion the time nursing intervention for elderly patients with high blood pressure control, according to the drug From sexual promotion, quality of life and improvement of nursing satisfaction has positive significance, worthy of clinical application.

**Keywords:** time care; hypertension; elderly patients; blood pressure control; quality of life

## Introduction

Hypertension is one of the most common chronic cardiovascular disease, hypertension can effectively control, directly affects the quality of life of elderly patients is caused by cardio cerebral dysfunction, stroke, coronary heart disease and other important risk factors of [1] disease with domestic social aging trend intensifies, hypertension in elderly patients has become increasingly prominent, and gradually younger. Now the control of hypertension is mainly through clinical treatment, medication and other means, but the patients' self-management consciousness, social and family support system is the main factor affecting the blood pressure control. Time refers to the physical nursing staff using the patient body itself the rhythm, the psychological factors of patients, medication time, new nursing concept of physiology and pathology and other aspects of care. The author of this group of elderly hypertensive patients were given time to nursing intervention, the medication time effect, the results are reported as follows

## Materials and methods

### 1.1 General information

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A total of 76 patients hospitalized from February 2016 to January 2017 in our hospital were hypertension, using randomized double blind parallel method can be divided into the observation group and control group. The observation group: 25 cases were male, 13 were female; the age is 41~72 years old, the average age (58.4 + 2.3) years; the course of disease was 2.4 to 7.1 years. The average duration of (4.7 + 1.5) years. The control group: 24 cases were male, 14 were female; the age is 43~71 years old, the average age (59.1 + 1.8) years; the course of disease was 2.2 to 6.8 years, the average duration of (4.5 + 1.6) years. All patients with unstable blood pressure Set up blood pressure after dizziness, vertigo and other symptoms. The two groups in age, gender, disease duration, no significant differences in disease and other aspects of information, no statistical significance ( $P > 0.05$ ). The study group received the hospital ethics department approval.

## **1.2 Nursing methods**

The control group received supportive care and routine care.

The observation group: in the control group based on the nursing plan, the change of blood pressure in patients with the 7:00,10:00, 14:00, 16:00, 22:00 dynamic detection, and to guide the individualized treatment plan according to the fluctuation of blood pressure in patients with dynamic and drug action time. The medication time for blood pressure reached a peak before 1 ~ 2 hours, the dosage strictly according to drug instructions. The patients or their families to measure blood pressure and precautions, and timely records. From the beginning to adjust the therapeutic regimen after 1 months for patients on the afternoon blood pressure monitoring.

Health education: health education for patients and their families, to explain the health knowledge of patients and their family members, to fully understand the etiology of hypertension, harm and treatment measures, explain the causes and prevention of hypertension complications such as points, not a hot bath, to avoid vasodilation, blood pressure drops suddenly cause the accident.

Diet guidance: keep the ward clean and quiet environment, ask the patient to pay attention to daily life diet rules, pay attention to high protein, low fat, low salt, eat more high protein food such as fish, fruits and vegetables and other foods with a high fiber content, to ensure a balanced diet, increase body resistance. To avoid eating greasy food and excitant food. The total fat intake < total caloric 20%. Appropriate, regular aerobic exercise, weight control, smoking and drinking.

Psychological nursing: nursing staff should take the initiative to communicate with patients, increase a patient's sense of belonging and favorability, ask the patient to maintain stable mood, avoid mood swings. Pay close attention to the psychological changes of patients, some patients lack of understanding of their condition, and the elderly think worry physiological characteristics, it is easy to produce fear, anxiety and other negative the mood, the nursing staff should patiently answering questions, to alleviate the psychological pressure of patients, improve medication compliance.

## **1.3 Observation index and curative effect judgment standard**

Observation index: monitoring and detailed records of two groups of patients with 7:00 ~ 22:00 every day when the change of blood pressure, blood pressure was observed in 24 hours is steadily reduced. Compliance with strict compliance to determine whether, including whether the timing of medication, medication, dosage and whether long-term adherence to medication. The quality of life short form (SF - 36) to evaluate two groups of patients' quality of

life, including the cognition of emotion, cognition, social function, physiological function, mental health and other aspects of a few, the score of 1 to 5, with higher values indicating a better life quality. Since the application in hospital The nursing satisfaction questionnaire was used to investigate the nursing satisfaction of the two groups, with total satisfaction = (very satisfactory number of cases + satisfaction number) / total number of cases \*100%.

Standard of curative effect: effect: the diastolic blood pressure decreased in the 10mmHg and decreased to normal or decreased 20mmHg, the systolic blood pressure decreased in the above 30mmHg; effective: diastolic blood pressure decreased below 10mmHg and decreased to normal or decreased level of 10mmHg ~ 20mmHg, the systolic blood pressure decreased below 20mmHg and decreased to normal or decreased in the 20mmHg ~ 30mmHg; invalid: systolic blood pressure and diastolic blood pressure did not decrease obviously, does not meet the above effect. The total effective rate (number = + cases markedly effective cases) / total number of cases of \*100%.

### 1.4 Statistical methods

All the effective data were analyzed by SPSS23.0 statistical software. The indexes of each group were expressed by mean + standard deviation (X + S), and the t test was carried out. The count data were X2 test, P < 0.05, the difference was statistically significant

Bear fruit:

Two groups of elderly patients after different nursing intervention, reduce the blood pressure in different degrees, the antihypertensive effect and the observation group (total efficiency) was significantly higher than the control group, significant difference (P < 0.05), with statistical significance, see table 1.

Table 1 the antihypertensive effect of the two groups after nursing was compared with [n (%)

group	excellence	effective	of no avail	Total effective rate
Observation group (n=38)	31 (81.58%)	6 (15.79%)	1 (2.63%)	37 (97.37%)
Control group (n=38)	16 (42.11%)	13 (34.21%)	9 (23.68%)	29 (76.32%)

Before and after nursing, the compliance of the two groups of elderly patients was observed. The compliance of the observation group was better than that of the control group, the difference was obvious (P < 0.05), which was statistically significant, as shown in table 2.

Table 2 Comparison of medication compliance between two groups before and after nursing [n (%)

compliance	observation group	control group	P value
Medication at prescribed time	37 (97.37%)	28 (73.68%)	<0.01
Medication prescribed by doctor	36 (94.74%)	25 (65.79%)	<0.01
Prescribed dose	38 (100%)	29 (76.32%)	<0.01
Adhere to the doctor's orders	35 (92.11%)	23 (60.53%)	<0.01

The quality of life in the two groups of elderly patients was evaluated. The quality of life of the 38 elderly patients in the observation group was significantly better than that of the control group, with significant difference (P < 0.05),

which was statistically significant, as shown in table 3.

Table 3 Comparison of quality of life scores between two groups after nursing

group	emotion cognition	disease cognition	social function	physiologic function	emotional health
observation group (n=38)	4.3±1.5	3.6±2.1	5.8±1.7	4.5±0.4	3.5±1.2
control group (n=38)	3.1±0.6	2.0±1.3	3.9±1.1	2.3±0.7	2.2±1.6
t value	10:27	9:61	12:49	5:33	6:52
P	<0.05	<0.05	<0.05	<0.05	<0.05

The nursing satisfaction of the two groups was investigated by different nursing protocols. Among them, the nursing satisfaction of the observation group was significantly higher than that of the control group ( $P < 0.05$ ), the difference was statistically significant, as shown in table 4.

Table 4 the satisfaction of the two groups after nursing care was compared with [n (%)]

group	very satisfied	satisfied	same as	discontent	total satisfaction
observation group (n=38)	26 (68.42%)	9 (23.68%)	3 (7.89%)	0 (0.00%)	35 (92.11%)
control group (n=38)	12 (31.58%)	17 (44.74%)	(15.79%)	(7.89%)	29 (76.31%)

## Discussion

Hypertension is due to atherosclerosis, resulting in reduced arterial elasticity, systolic function decreased, resulting in elevated systolic blood pressure, diastolic blood pressure decreased. There are studies that [2], most elderly patients with hypertension in isolated systolic hypertension (ISH), showed a rise in systolic pressure and pulse pressure increasing characteristics of death, higher morbidity.

Hypertension is a life-long disease, need long time medication regimen. The past is the average day dose will ask the patient to take, it will make the drug concentration in accordance with the change of blood pressure can not play a role, thereby affecting the medication effect. Time nursing in patients with hypertension or select appropriate drugs and drug dose and time, prompting antihypertensive drugs play a role is consistent with the peak of blood pressure rhythm, and can effectively and stably control blood pressure in all day long, so that blood pressure variability is reduced, and thus avoid the target organ damage and cardiovascular [3]. usually body in 24 hours ambulatory blood pressure shows "Shuangfeng Valley" trend. In patients with hypertension The overall blood pressure level is higher, but the fluctuation of blood pressure curve and normal people. Through the similar time nursing, control blood pressure peak of the day in

patients with 1~2, in the hours before the peak in the medication, the drug action time coincides with the natural fluctuations in blood pressure peak, has better antihypertensive effect. A large number of research results show that 7:00,16:00,22:00 can obtain the medication good antihypertensive effect, the 3 time points of the drug can improve the blood concentration in vivo, the antihypertensive drug plasma concentration and blood pressure peak to peak basic synchronization, control blood pressure, reduce the damage and complications in the study group, observation The antihypertensive effect, quality of life, treatment compliance and nursing satisfaction of the patients were

significantly better than those of the control group. It can be seen that the effect of the time care intervention is steady and effective, and can significantly improve the quality of life of patients with hypertension

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