

Analysis on the Effect of Preventional Intervention to hypertension

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Abstract: To study the effect of comprehensive prevention and treatment of hypertension. In the comprehensive prevention and control measures for patients with hypertension, we investigate and compare the lifestyle, medication compliance, blood pressure and body mass index of patients with the comprehensive prevention and control measures before and after 1 years. The effect of intervention, the differences in lifestyle and medication of patients were statistically significant ($P < 0.05$). The differences of SBP, DBP and body mass index were statistically significant ($P < 0.05$). Comprehensive intervention can improve the life style of patients with hypertension, enhance their medication compliance, and effectively improve the disease, has important clinical application value.

At present, the prevalence rate of hypertension in our country is growing very fast, which has seriously threatened the health of human beings. This study let patients with hypertension as the research object, put the implementation of comprehensive prevention and treatment interventions. The result has improve the patient's bad habits, enhance patients cognition of hypertension disease, improve the enthusiasm of treatment. Curative effect is distinct, as follows.

Data and Methods

General Information. Through physical examination, we have screened out of 116 cases of hypertensive patients, male 64 cases, female 52 cases, age 43 ~ 76 ($63.65 + 27.32$) years old. The course of disease was 2 months to 28 years. According to the patient's blood pressure level and medical history assessment, 116 patients were divided into low risk, medium risk and high risk of three types, of which 46 cases of low risk, 52 cases of high-risk, 18 cases of high risk. All patients with hypertension have access to basic medical insurance.

Method. Survey methods and content. We investigated 116 patients with hypertension before and after intervention. By questionnaire investigation, investigation content includes gender, age, lifestyle (diet, smoking, drinking, exercise, psychological adjustment, etc.), whether the master the related knowledge of hypertension, treatment, routine examination (body weight, height, blood pressure measurement).

Comprehensive prevention and intervention measures. Publicity and education. The duty doctor should carry on the hypertension propaganda and education regularly to the patient, that can cause the patient to be able fully to realize the hypertension sickness, the high risk factor, the preventive measure, strengthen their medical behavior, enhance the self - prevention consciousness.

Network management. The responsible physician or nurse should regularly use risk stratification to patients to evaluate risk stratification, complete the change of symptoms in each patients, lifestyle,

medication and other aspects of the record. According to the results of the assessment of patients ,we use the corresponding intervention measures, such as the existence of smokers in a timely manner to stop, timely correction of unreasonable dietary behavior, etc ^[1] ..

Reasonable dietary guidance. First of all, sodium restriction. daily salt intake should be less than 6G, fasting high salt content of salted fish, Pickles and other foods. Secondly, reduce animal fats such as the intake of fat pork, lard, animal offal, reduce cholesterol, such as butter, ghee, vegetable oil, fried food, fatty acid etc. the intake, to limit the overall calorie intake, the staple food to coarse grain, grains, bean products, breakfast drink 300ml milk; in addition necessary vitamins, eat more fresh fruit, eat more vegetables and fruits with rich in vitamin C ^[2] .

Quit smoking, limit alcohol, moderate exercise. The right amount of exercise can reduce the blood pressure of the patient, the specific mode of exercise (jogging, cycling, walking, etc.) . Exercise intensity should be based on the patient's blood pressure level, target organs, etc.. Exercise time every day, the number of times per week and exercise ways should be based on the patient's situation, but in general, patients need to exercise 20min in every morning , around 30min in afternoon .

Psychological balance. The condition seriously affects the patient's psychological balance, which causes the psychological fear. The responsible physician or nurse should actively inform patients psychological balance to relieve symptoms and the medicine to cure such diseases, alleviate the fear ^[5].Physician or nurse should friendly and efficient communicate with patients, in a timely manner to meet the reasonable demands of patients, establish good relationship between doctors and patients, so that patients can actively cooperate with the treatment ^[3] .

Drug therapy. Reasonably using drug can rapidly lower blood pressure, protect target organ, prevent the occurrence and development of stroke, heart failure, but using drug must under the guidance of the responsible physicians ,can not be taken blindly. Patients take medication must be on time, can not be stopped by yourself . To those take medication not be on time, physician or nurse must supervise they take medication.

Statistical Methods. Data were analyzed by SPSS 17.0, count data usingX2 test, using t test, P < 0.05 means there were statistically significant differences.

Results

The Contrast of Lifestyle and Medication Compliance before and after Intervention. Before and after the intervention, the difference was statistically significant (P < 0.05) in the way of life and taking medicine, see table 1.

Table 1 Comparison of lifestyle and medication before and after intervention (n)

	Reasonable diet	Quit smoking and alcohol	Moderate exercise	Psychological balance	Medication compliance
Before intervention	80	82	93	84	78
After intervention	114	113	110	109	115
X ²	36.380	30.901	11.389	19.264	42.196
P	0.000	0.000	0.001	0.000	0.000

Blood Pressure and Body Mass Index (BMI) in Patients before and after Intervention. The differences of SBP, DBP and BMI before and after intervention were statistically significant (P < 0.05). See table 2.

Table 2 Comparison of blood pressure and body mass index before and after the intervention
($\bar{x} \pm s$)

	SBP(mmHg)	DBP(mmHg)	BMI (kg/ m ²)
Before intervention	158.71±20.41	102.25±14.56	24.79±4.29
After intervention	131.75±17.88	86.98±10.05	23.27±4.00
t	10.089	9.249	2.524
P	0.000	0.000	0.013

Discussion

People's daily life style (such as unscientific die, smoking and drinking behavior, the lack of scientific exercise, inappropriate psychological adjustment, etc.) has become the main cause of the incidence of hypertension. In addition, the lack of prevention and treatment of hypertension related knowledge, this may cause the patient can not be timely and effective treatment of hypertension, so that the disease further deteriorate. Comprehensive intervention for patients with hypertension is necessary. After the comprehensive intervention, the incidence of cardiovascular and cerebrovascular disease was significantly decreased, and the cost of comprehensive intervention accounted for only 1% to 2% of treatment costs^[4].

According to the factors mentioned above, and in the light of the actual situation of the patients with hypertension, we put the proposed comprehensive intervention measures from the publicity and education, network management, reasonable diet guide, stop smoking alcohol limit, regular exercise, psychological balance, drug treatment and other aspects. 1 year after the implementation of the measures, patients with the adverse lifestyle were significantly decreased, and the lifestyle was significantly improved. In addition, the medication compliance of patients was significantly higher than that before the intervention. Good lifestyle and consciousness of medication compliance can significantly improve the disease and stable patient's condition. In this study, the blood pressure of the patients was significantly reduced after intervention, and the patient's blood pressure was basically at a normal level, and the patient's body mass index was significantly reduced, which shows that the awareness of hypertension patients to prevent hypertension was constantly enhanced^[5].

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