Study on Prevention and Treatment of Cardiovascular and Cerebrovascular Diseases and Community-Based Rehabilitation in the Elderly

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Abstract: Cardiovascular and cerebrovascular diseases are common diseases that endanger people's health. In this paper, 80 elderly patients with cardiovascular and cerebrovascular diseases treated in a street community health service center in Jiangsu Province in 2019 were selected as the observation group, and 80 middle-aged and young patients with cardiovascular and cerebrovascular diseases who visited the service center during the same period were selected as the control group to assess the overall risk of the patients. Based on the assessment results, integrated management of community prevention, treatment was performed on the elderly patients in the observation group. The awareness rate, treatment rate, control rate, attitude, behavior level, and other aspects of the patients for cardiovascular and cerebrovascular diseases before and after the management were observed and compared. The results showed that in the assessment of overall risk in the observation group, the prevalence of three risk factors (above the age of 45, hypertension, and elevated blood glucose) was significantly higher than that in the control group. After the implementation of management, the indexes, attitude, behavior levels, and detection rate of risk factor abnormality of the patients in the observation group were significantly superior to those in the control group ($P < 0.05$). Hence, the implementation of integrated management of community prevention, treatment, and rehabilitation can effectively improve patients' mastery of knowledge about cardiovascular and cerebrovascular diseases and play an important role in reducing the abnormal risk factors.

1. Introduction

Cardiovascular and cerebrovascular diseases are common diseases that endanger people's health [1-2]. Reports show that the mortality of cardiovascular and cerebrovascular diseases in the world is as high as 15 million every year. Although the most advanced and comprehensive treatment methods can be used to achieve some effects, 1/2 of survivors of cerebrovascular accidents still have 1/2 The above patients do not have the ability to take care of themselves [3]. Hence, it is necessary to improve the physical health of affiliated personnel, implement the service purpose of prevention, and carry out systematic follow-up work to promote the quality of life and health education for patients [4]. In 2019, an overall risk assessment was performed on elderly patients with cardiovascular and cerebrovascular diseases seen in a street community health service center in Jiangsu Province, that is, the high-risk factors of patients with cardiovascular and cerebrovascular diseases were assessed, and community prevention and treatment was implemented for their patients based on the assessment results. Integrated rehabilitation management has achieved excellent results in reducing the incidence of cardiovascular and cerebrovascular diseases [5-6].

2. Materials and Methods

(1) General information

A group of 80 elderly patients with the cardiovascular and cerebrovascular diseases treated at a community health service center in Jiangsu Province in 2019 was selected as the observation group. The patients were aged 60-85, with an average age of (70.2±11.4), including 47 males and 33 females. 80 middle-aged and young patients with cardiovascular and cerebrovascular diseases who were treated at a community health service center in Jiangsu Province during the same period were

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selected as the control group. The patients were aged 22 ~ 59 years, with an average age of (48.7±11.6), including 43 males and 37 females. There was no significant difference in age and gender between the two groups of patients (P> 0.05). The differences between the two groups were not statistically significant, which were comparable.

(2) Method

The overall risk assessment of cardiovascular and cerebrovascular diseases was performed on patients. The risk assessment items included a total of 10 items: such as age factors, the age of men was> 55 years, and the age of women was> 65 years. Hypertension is a high-risk factor. Smoking, the main statistical object is long-term smokers. Dyslipidemia includes total cholesterol, and the detection value is ⩾5.7mmol / L. The triglyceride factor, the detection value is ⩾1.7mmol / L. High-density lipoprotein cholesterol factor, detection value < 1.0mmol / L. Low-density lipoprotein cholesterol factor, detection value> 3.3mmol / L. Impaired glucose tolerance: 2 hours postprandial blood glucose 7.8 ~ 11.0mmol / L and / or fasting blood glucose abnormalities 6.1 ~ 6.9mmol / L. Body mass index factor is ⩾25kg/m^2 is overweight, ⩾28kg /m^2 is obese. A family history of early-onset cardiovascular diseases. The age of first-degree relatives is < 55 years for men and < 65 years for women. Elevated blood homocysteine, ⩾10umol / L, history of transient ischemic attack. Excessive drinking, etc. According to the overall risk assessment, elderly patients with cardiovascular and cerebrovascular diseases will be integrated with the integrated management of community prevention, treatment, and rehabilitation.

(1) Carry out community diagnosis and formulate prevention and treatment plans, conduct baseline surveys using questionnaires, interviews, and special surveys, and formulate and implement integrated management plans for the prevention, treatment, and rehabilitation of operable cardio-cerebral-vascular diseases based on the community diagnosis. The plan and management content mainly include rehabilitation interventions, prevention and treatment networks, technical training, health education and assessment systems.

(2) Implement management, implement the patient-high-risk group-whole-group strategy based on the community-based, hypertension management-focused, health education and prevention, treatment, and rehabilitation promotion as the central content.

Hypertension management, health checkups, special topics, interviews, and baseline surveys within the community were performed. At the same time, during the routine blood pressure measurement in regular outpatient clinics, the hypertensive patients found at the first consultation are recorded, all of them are registered, and a personal file was established. The management measures such as drugs, essential drugs, and behavioral interventions were implemented according to patients' blood pressure levels and graded management standards. Specialized clinics for hypertension and cardiovascular and cerebrovascular diseases are administered by dedicated personnel. A unified treatment plan is adopted, and some cost-effective drug treatments are given to patients. , Implement quantitative life guidance.

Cardiovascular and cerebrovascular diseases management of high-risk risk factors, registration, and management of susceptible people with hypertension and other diseases in the past, including patients with normal blood pressure but with tobacco and alcohol addiction, obesity, or parents with hypertension It is usually reviewed at least once a year, and life guidance is provided, including advice on diet and exercise.

Intervention for the entire population, through posters, consultation activities, expert consultations and lectures, to intervene in groups at high risk for cardiovascular and cerebrovascular diseases. Management mainly includes appropriate exercise, psychological balance, and reasonable diet, smoking cessation and alcohol restriction, etc. Community diagnosis and patient management, regular follow-up, and out-patient clinics provide systematic health education for patients.

In quality control, all personnel participating in the integrated management of community prevention, treatment, and rehabilitation are required to receive the pre-job training. The training content includes prevention, treatment, and rehabilitation technology. All survey data of patients must pass on-site review and review by the disease control center. At the same time, the database is based on relevant requirements Input and statistics.

(3) Observation indexes

Observe the overall risk assessment of patients, the proper medical knowledge, attitude, behavior level, and detection rate of risk factor abnormality for cardiovascular and cerebrovascular diseases after implementing management in elderly patients with cardiovascular and cerebrovascular diseases.

(4) Statistical methods

The data were processed by SPSS19.0, the chi-square test was performed, and count data were described by percentage. Differences at $P < 0.05$ were considered statistically significant.

3. Experimental Results

(1) In the overall risk assessment of patients in the observation group, the prevalence of the three risk factors (age ⩾45 years old, hypertension, and elevated blood glucose) were significantly higher than that in the control group, $P < 0.05$, as shown in Table 1.

Table 1 Comparison of Overall Risk Assessment between Two Groups of Patients [Case (%)]

Group	Age⩾45	hypertension	Elevated blood sugar	overweight	Family history of early-onset cardiovascular diseases	Hyperlipidemia
Control group (80 cases)	56(70.0)	17(21.25)	11(13.75)	7(8.75)	5(6.25)	4(5.0)
Observation group (80 cases)	80(100.0)	44(55.0)	24(30.0)	11(13.75)	9(11.25)	6(7.5)
χ^2	35.294	24.143	7.726	1.252	1.566	0.533
P	0.000	0.000	0.005	0.263	0.211	0.465

(2) After management, the attitude and behavior assessments of elderly patients with cardiovascular and cerebrovascular diseases were significantly improved ($P < 0.05$), as shown in Table 2.

Table 2 Comparison of Attitudes and Behaviors of Elderly Patients Before and after Management [Case (%)]

Group	Smoking	Blood pressure	Take medicine	motion	Drinking	High-fat diet
Before management (80 cases)	46(57.5)	52(65.0)	56(70.0)	44(55.0)	52(65.0)	57(71.25)
After management (80 cases)	22(27.5)	63(78.75)	70(87.5)	56(70.0)	31(38.75)	33(41.25)
χ^2	18.414	4.676	9.150	4.800	13.801	18.286
P	0.000	0.031	0.002	0.028	0.000	0.000

(3) After management, the detection rate risk factor abnormality in elderly patients with cardiovascular and cerebrovascular diseases was significantly lower than that before management ($P < 0.05$), as shown in Table 3.

Table 3 Comparison of Abnormal Detection of High-Risk Risk Factors in Patients Before and after Management [Case (%)]

Group	Total cholesterol abnormality	Triglyceride	Body mass index abnormal	Abnormal electrocardiogram
Before management (80 cases)	34(42.5)	17(21.25)	16(20.0)	19(23.75)
After management (80 cases)	12(15.0)	8(10.0)	6(7.5)	7(8.75)
χ^2	18.459	4.800	6.588	8.266
P	0.000	0.028	0.010	0.004

4. Conclusions

Cardiovascular and cerebrovascular diseases mainly refer to diseases of the cardiovascular and cerebrovascular diseases, and clinically refer to the ischemic or bleeding of the heart, brain and systemic tissues caused by hyperlipidemia, hypertension, high blood viscosity, atherosclerosis, etc., which can pose a severe threat to people's health. In particular, middle-aged and elderly people aged 50 and above are at high risk of cardiovascular and cerebrovascular diseases. Reports have shown that hypertension, hyperlipidemia, and hyperglycemia are high-risk factors for cardiovascular and cerebrovascular diseases, which are closely related to the lifestyle of patients. In addition, WHO has verified that cardiovascular and cerebrovascular diseases that are relatively common in middle-aged and elderly people are controllable. They fall into the category of lifestyle diseases. Effective and scientific management can significantly reduce the prevalence of cardiovascular and cerebrovascular diseases. .

In this group of studies, an overall risk assessment was performed on patients with cardiovascular and cerebrovascular diseases. The results showed that young and old patients had abnormal lipid metabolism. Patients aged 45 years and above showed the highest prevalence of cardiovascular and cerebrovascular diseases. Patients with high blood pressure and elevated blood sugar were the next most crucial factor, indicating that patients aged 45 years and over were a high-risk factor for cardiovascular and cerebrovascular diseases.

The results of this group of studies showed that after the implementation of management, the attitude and behavior level of elderly patients with cardiovascular and cerebrovascular diseases were significantly improved. The detection rates of abnormal risk factors for cardiovascular and cerebrovascular diseases in elderly patients were also significantly decreased ($P < 0.05$). This suggested that the implementation of integrated management of community prevention, treatment, and rehabilitation based on the overall risk assessment of cardiovascular and cerebrovascular diseases could effectively enhance patients' knowledge about cardiovascular and cerebrovascular diseases, enhance their ability to change poor living behaviors, and establish correct attitudes towards the diseases, thereby reducing the abnormal detection of cardiovascular and cerebrovascular diseases risk factors. Hence, integrated management of community prevention, treatment and rehabilitation can not only achieve the purpose of publicizing the harm, prevention and treatment knowledge of cardiovascular and cerebrovascular diseases extensively but also improve disease prevention ability and health awareness of the community population. According to the analysis, it is related to the prevention and control work carried out in the management work to make the community residents understand cardiovascular and cerebrovascular diseases correctly. By implementing integrated management of community prevention, treatment, and rehabilitation, not only can patients understand the heart and brain The harm and severity of vascular diseases can also encourage patients to participate in prevention and treatment activities actively, so that the prevention and treatment of cardiovascular and cerebrovascular diseases can achieve good results, and enhance the rehabilitation effect of patients, to achieve mass prevention and control. In addition, in the management process, continuous propaganda and extensive mobilization are conducted to effectively ensure the smooth implementation of prevention, treatment, and rehabilitation.

In conclusion, the elderly people are at high risk of cardiovascular and cerebrovascular diseases. Age, hypertension, dyslipidemia, and elevated blood glucose are the main risk factors for cardiovascular and cerebrovascular diseases in the elderly. It is necessary to strengthen the management of weak links to address the risk factors of cardiovascular and cerebrovascular diseases through comprehensive community management to reduce the morbidity, disability, and mortality of patients.

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