

The Role of Vestibular Rehabilitation Training in Persistent Postural Perceptual Dizziness

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Abstract: Objective: To analyze the role and application value of vestibular rehabilitation training in persistent postural perceptual dizziness. Methods: 60 patients with persistent postural perceptual dizziness who were diagnosed and treated in the Shaanxi Provincial People's Hospital in China from May 2019 to July 2019 were selected as the experimental research objects. Using the method of retrospective summary research, they were divided into two experimental groups according to their treatment methods. There were 30 patients in the rehabilitation group and the control group. The control group used routine drugs for diagnosis and treatment. The rehabilitation group should take the treatment of the control group as the benchmark, implement vestibular rehabilitation treatment and nursing, and observe the treatment effects of the two experimental groups. Results: after treatment, the total effective rates of the patients in the control group and the rehabilitation group were 74% and 92% respectively. The total effective rate of the rehabilitation group was significantly higher than that of the control group. After treatment, the patient satisfaction of the rehabilitation group was 96% and that of the control group was 71%. Conclusion: Vestibular rehabilitation training is very effective in patients with persistent postural perceptual dizziness. The application of this method will improve its treatment effect, and patients will have a high degree of satisfaction with it. Therefore, it can be vigorously promoted in clinical practice in China.

Keywords: Vestibular Rehabilitation Training; Persistent Postural Perceptual Dizziness; Effect

Introduction

Dizziness is a morbid compensatory symptom formed by patients' interaction. It will have the main manifestations of active vestibular dysfunction in clinical practice. Patients with persistent postural perceptual dizziness will have anxiety, and some patients can't maintain normal living conditions. Duloxetine hydrochloride is the main drug for the diagnosis and treatment of this kind of disease. Vestibular rehabilitation treatment will use various ways such as body movement and head eye coordinated movement to improve the functional state of patients with low vestibular function, reduce the adverse effects caused by anxiety, and alleviate their tense subjective psychological response, to improve dizziness symptoms and improve patients' self-regulation ability.

1. Data and methods

1.1 Data

60 patients with persistent postural perceptual dizziness admitted to the Shaanxi Provincial People's Hospital in China from May 2019 to July 2019 were used as experimental subjects, and the inclusion criteria were set by means of retrospective summary study. Well, the course of patients with persistent postural perceptual dizziness cannot be less than 3 months, and no psychotropic drugs or anti dizziness drugs can be used within two weeks before the experiment. All clinical data and information reports are complete, excluding patients with mental diseases or lack of clinical data. In this experiment, there were 30 male patients and 30 female patients. The youngest was 26 years old and the oldest was 77 years old. The overall average age was 46 years old, and the body mass index was (24.39 ± 6.44) kg/m². Combined with their treatment methods, they were divided into control group and rehabilitation group in turn. Each experimental group had 30 patients. There was no

difference between the data and information of the two experimental groups, and $p > 0.05$.^[1]

1.2 Method

The patients in the control group were treated with conventional drugs, taking duloxetine hydrochloride orally, 20mg, once a day. Patients in the rehabilitation group should be treated with vestibular rehabilitation based on the treatment of the control group, and a rehabilitation group should be established, which is composed of the Department responsible nurse and the organization doctor. If necessary, they can communicate with the family members of the patients and invite them to participate in the treatment activities. Their members must be familiar with and understand the characteristics of vestibular rehabilitation treatment and the application methods and steps. To carry out behavioral rehabilitation treatment, first stand up, keep your eyes on the dot at 1cm in front, so that it can be parallel to the position of your eyes, mainly shaking your head left and right, stop shaking your head immediately after feeling dizzy, and repeat the above actions again after dizziness stops. Practice for ten minutes in the morning and afternoon, turn your head 45 degrees to the right, stare at the fixed target, and then nod up and down. Open your eyes first, and then close your eyes. Follow the principle from slow to fast. Secondly, choose a chair with a back and put it within ten steps. The patient sits on a chair and should quickly bend down to touch his feet. Then sit up quickly. After doing it three times in a row, he should walk to the opposite chair and repeat the above action repeatedly. The two chairs are used to practice for ten minutes, and the morning and afternoon practice for ten minutes respectively. The last is the standing position. You should open your eyes and walk. After 10 to 15 steps, close your eyes. The first training needs to be completed jointly under the guidance of medical staff. Then you can have someone accompany you in the follow-up training. You need to train three times a day, each time for ten minutes. The two experimental groups were treated and observed for 15 days.^[2]

1.3 Observation indicators

① Efficacy criteria: significant effect: symptoms such as dizziness are significantly reduced and can live or work normally; Effective: dizziness and other symptoms have been reduced, from time to time, without affecting normal life or work; Invalid: dizziness and other serious symptoms, unable to get up, need to stay in bed. $(\text{effective} + \text{effective}) / \text{number of cases in this group} \times 100.00\% = \text{total effective rate}$. ② Satisfaction: after treatment, the self-made satisfaction survey scale of our hospital was used for investigation, which was divided into three levels: very satisfied, relatively satisfied and dissatisfied. The reliability and validity of the scale were above 0.95. All surveys were conducted before the survey, necessary explanations were given to the patients, and the patients' cooperation was obtained. The patients completed the self-survey and scoring independently. The satisfaction of the survey and evaluation was 100.00%.^[3]

1.4 Statistical methods

Spss20.00 statistical software package was used to express and statistically analyze the measurement data and counting data, and T or chi square test was performed. $P < 0.05$ represents that the difference is statistically significant.

2. Results

First, the experimental observation and comparison show that all patients have completed the treatment. The total effective rates of the rehabilitation group and the control group are 92% and 74% respectively. The total effective rate of the rehabilitation group will exceed that of the control group. The second is the comparison of satisfaction. After receiving treatment, the satisfaction of the control group is 71%, and that of the rehabilitation group is 96%. The satisfaction of the rehabilitation group will significantly exceed that of the control group, and $p < 0.05$.

3. Discussion

Duloxetine hydrochloride is a common treatment for persistent postural perceptual dizziness, which is a dual channel blocker. In clinic, the therapeutic effect of its drugs will be better, but not all patients can benefit from taking drugs. Vestibular rehabilitation treatment mainly uses psychological, behavioral intervention and other methods to reduce the

activity level of the sympathetic nervous system and improve its self-regulation ability. It uses compensatory methods to promote peripheral or central vestibular loss to reverse the high-sensitivity state of motor stimulation formed by the patient's conditioned reflex, so that it can achieve the ideal quality goal. And through experimental research, after treatment, the total effective rate of the control group is 74%, and the total effective rate of the rehabilitation group is 92%. If it cannot be effectively treated, the patients will suffer from long-term dizziness, a significant decline in quality of life, and irregular medication will also aggravate the symptoms of dizziness. Therefore, in this situation, vestibular rehabilitation treatment is needed, its application value in patients with persistent postural perceptual dizziness will be better played out. The duration of each exercise is gradually extended by 1 ~ 2min. PPPD patients with mild to moderate anxiety can be exposed to the environment that induces dizziness and treated with vestibular rehabilitation exercise alone. However, those who have not significantly improved their severe anxiety should be treated with drugs and psychological intervention.^[4]

Conclusion

Dizziness is a kind of common physical and mental disease. Once patients suffer from this disease, it will occur repeatedly, which will not only have an adverse impact on the patients themselves, but also affect the normal life of the patients' families. Patients with this kind of disease are usually middle-aged and elderly people, who are affected by factors such as the long treatment cycle of chronic diseases. Their diagnosis and treatment requirements will be relatively high, and it is also easy to induce them to have some doctor-patient disputes. [5] Therefore, vestibular rehabilitation therapy for dizzy patients can correctly guide patients to receive reasonable drug diagnosis and treatment, and provide psychological counseling for them, so that patients can cooperate with treatment and reduce the negative emotions of patients due to disease factors. And through experimental research, it is found that vestibular rehabilitation treatment itself will make dizziness or dizziness symptoms more serious, but repeated stimulation signals can make it form vestibular habits, thus gradually forming a more perfect compensation, so that the prognosis and quality of life of patients will become higher. Experimental research shows that after treatment, the satisfaction of the rehabilitation group and the control group is 96% and 71% respectively. The satisfaction of patients in the rehabilitation group will significantly exceed that of patients in the control group, and the application of vestibular rehabilitation therapy in the diagnosis and treatment of patients with this disease will make its treatment effect better.

References

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