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Screening of dysphagia and bedside rehabilitation nursing in patients with cerebral hemorrhage

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Abstract: Objective: To explore the early screening and rehabilitation nursing measures of dysphagia in patients with cerebral hemorrhage. Methods: A total of 443 patients with cerebral hemorrhage who were hospitalized in our hospital from October 2019 to October 2021 were selected as the research objects, and 381 patients with cerebral hemorrhage who were hospitalized in our hospital from September 2017 to September 2019 were selected as the control group. The swallowing function of the patients was evaluated by water swallow test and indirect assessment, and the patients were treated with routine rehabilitation nursing and pharyngeal cold stimulation. The incidence of aspiration pneumonia and clinical effects were compared between the two groups. Results: The incidence of aspiration pneumonia in the two groups: there were 15 cases of aspiration pneumonia in the treatment group (incidence rate 15/443, 3.55%), and 32 cases in the control group (incidence rate 32/381, 9.1%), there were statistical differences between the two groups($P<0.01$).The curative effect observation between the treatment group and the control group: after 1 week rehabilitation treatment, the observation group showed marked effect in 34 cases, improved in 215 cases, and ineffective in 194 cases, the effective rate was 56.2%; in the control group, 25 cases were markedly effective, improved in 119 cases, ineffective in 237 cases, and the effective rate was 37.8%., the difference between the two groups was statistically significant ($p<0.01$).Conclusion Patients with cerebral hemorrhage have a higher incidence of dysphagia, and earlier rehabilitation assessment and nursing intervention can significantly reduce the incidence of complications and improve clinical efficacy. Conclusion: Patients with cerebral hemorrhage have a higher incidence of dysphagia, and earlier rehabilitation assessment and nursing intervention can significantly reduce the incidence of complications and improve clinical efficacy.

Keywords: Cerebral hemorrhage; Swallowing disorders; Screening; Nursing.

1. Introduction

Cerebral hemorrhage is a disease that seriously threatens people's health, and has the characteristics of high morbidity and mortality. In addition to cerebral hemorrhage itself, the cause of death is partly due to complications such as lung infection and malnutrition. Intracerebral hemorrhage can lead to different degrees of dysphagia, increasing the incidence of pneumonia and malnutrition [1]. Therefore, the assessment of dysphagia in the early stage of intracerebral hemorrhage and the adoption of targeted nursing interventions can reduce the incidence of complications and improve the quality of life of patients. Therefore, we selected patients with cerebral hemorrhage who were admitted to our hospital from October 2019 to October 2021 as the research subjects, and explore the screening assessment and rehabilitation nursing measures for swallowing disorders at the bedside. The report is as follows.

2. Materials and methods

2.1. General information

A total of 443 patients with cerebral hemorrhage who were hospitalized in our hospital from October 2019 to October 2021, were selected, aged 17 to 86 years [average (58.23±12.76)] years, including 131 females and 312 males. Inclusion criteria: (1) cerebral hemorrhage confirmed by head CT or MRI; (2) unconscious disorder; (3) no mental disorder; (4) no tracheal intubation or tracheotomy. Exclusion criteria: (1) patients with throat disease or esophageal disease; (2) patients with impaired consciousness; (3) patients with mental disorders who do not cooperate with the examination; (4) patients with tracheal intubation or tracheotomy. A total of 381 inpatients with cerebral hemorrhage in our hospital from September 2017 to September 2019 were selected as the control group, and there was no statistical difference in gender, age and condition between the two groups.

2.2. Methods

1) Rehabilitation assessment Indirect assessment: the patient sits in a sitting position of ≥60°, and observes the number of coughs, the success of swallowing saliva, the presence or absence of saliva, and pronunciation [2].The water swallow test: Normal: drink 30ml of warm water within 5s, no choking; mild: drink more than once within 5s, with choking; moderate: drink more than 2 times within 5s, with choking; severe: multiple occurrences choking, can't finish drinking within 10s.

2) Rehabilitation Treatment Rehabilitation care: Dietary guidance: According to the specific conditions of the patient's swallowing function, appropriate food selection, patients with mild dysphagia should eat more semi-solid soft food and moist, viscous liquid food, and can chew properly. Foods eaten by patients with moderate dysphagia do not need to be chewed, solid particles are excluded, and liquid drugs are prohibited. Foods eaten by patients with moderate dysphagia do not need to be chewed, solid particles are excluded, and liquid drugs are prohibited.

Patients with severe dysphagia eat by mouth. The patient needs to maintain a semi-sitting position of about 60°when eating, and the nursing staff or family members will feed it and place it in the oral cavity of the unaffected side to ensure safe swallowing, prevent shortness of breath, cough and aspiration, and help the patient's postoperative recovery. Swallowing function training: daily oropharyngeal activity training, practice chewing action, exercise tongue muscle,

masticatory muscle, temporal muscle and laryngeal adductor muscle, 1-2 times/d, 25 min/time. Use water or vinegar to stimulate the pharynx and practice empty mouth swallowing, 3 times/d, 10 min/time. Oral management: keep the mouth clean, clean up the epithelium and food residues in the mouth, check for ulcers, and prevent fungal infections. Pharyngeal cold stimulation method. Pharyngeal cold stimulation method. The patient is in a sitting or semi-sitting position, soaked with a cotton swab in ice saline at 0℃(soaked for about 5 minutes, 3 pieces/time), and then rubbed and stimulated on the patient's pharyngeal and palatal arches, in the order of posterior palatal arch, soft palate, and palatal arch, the posterior wall of the pharynx and the posterior root of the tongue, change the cotton swab once a round, 5 rounds/time, 7d is a course of treatment. The two methods were used in the treatment group, and the conventional rehabilitation nursing was used in the control group

3) Efficacy evaluation index. the incidence of aspiration pneumonia. Recovery of dysphagia: According to the water swallow test, markedly effective: the swallowing function improved by 2 grades; improved: the dysphagia improved by 1 grade; ineffective: no significant change before and after treatment.

4) Statistical analysis the results were expressed as rates, and the x^2 test was used for comparison two groups. $P<0.05$ was considered statistically significant.

3. Results

1) There were 443 cases in the treatment group and 381 cases in the control group, with no omissions.

2) The incidence of aspiration pneumonia in the two groups: there were 15 cases of aspiration pneumonia in the treatment group (incidence rate 15/443, 3.55%), and 32 cases in the control group (incidence rate 32/381, 9.1%), there were statistical differences between the two groups($P<0.01$).

3) The curative effect observation between the treatment group and the control group: after 1 week rehabilitation treatment, the observation group showed marked effect in 34 cases, improved in 215 cases, and ineffective in 194 cases, the effective rate was 56.2%; in the control group, 25 cases were markedly effective, improved in 119 cases, ineffective in 237 cases, and the effective rate was 37.8%., the difference between the two groups was statistically significant ($p<0.01$).Conclusion Patients with cerebral hemorrhage have a higher incidence of dysphagia, and earlier rehabilitation assessment and nursing intervention can significantly reduce the incidence of complications and improve clinical efficacy.

Group	Significant effect	improved	ineffective	Total	P value
TG	34	215	194	443	1.32046E-07
CG	25	119	237	381	
Total	59	334	421	824	

Fig.1 The curative effect between treatment group and control group

4. Discussion

Dysphagia in the early stage of cerebral hemorrhage brings great inconvenience to the life of patients. Patients cannot eat normally, and are prone to complications such as malnutrition and pneumonia, which seriously affects the quality of life of patients. Therefore, in the early stage of cerebral hemorrhage, it is necessary to strengthen the screening of swallowing disorders, correctly understand its harmfulness, and take effective nursing and rehabilitation measures for treatment and prevention, so as to reduce the complications of patients, promote rehabilitation, and improve the quality of life. Therefore, we began to evaluate dysphagia in suitable patients at an early stage (after 24 hours of stable disease), and took appropriate rehabilitation measures at the bedside to improve the prognosis of patients.

The screening tools we adopted are indirect assessment and water swallow test, which are simple and easy to operate, and can be operated by nursing staff after simple training. In our experiment we found 443 patients with dysphagia, indicating a higher incidence in patients with cerebral hemorrhage. At the same time, the rehabilitation measures we take at the bedside include two aspects, one is routine rehabilitation care, including dietary guidance, swallowing function training, oral management, and the other is pharyngeal cold stimulation. The combined application of the two methods has better clinical outcomes, the incidence of aspiration pneumonia is significantly reduced, and it also has better clinical efficacy, and the cold stimulation of the pharynx does not require special equipment, and the clinical application is also more convenient. The local cold stimulation method of the pharynx mainly accelerates the swallowing movement by enhancing the input of sensory impulses before swallowing and lowering the threshold of pharyngeal motor initiation.

In conclusion, patients with cerebral hemorrhage have a higher incidence of dysphagia, and earlier rehabilitation assessment and nursing intervention can significantly reduce the incidence of complications and improve clinical efficacy.

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