



Effect of Nursing Intervention on Postoperative Acute Cerebral Syndrome in Elderly Gastrointestinal Cancer Patients

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ABSTRACT

This paper aims to improve the clinical efficacy and life quality of elderly patients with gastrointestinal cancer, and also promote the prevention of gastrointestinal cancer. To this end, the conventional nursing intervention method and comprehensive nursing intervention method were mainly used to measure the expected treatment of patients with gastrointestinal cancer, so as to make the comparison. The results show that difference of disease-uncertainty between the experimental group and the control group on the day of admission was significantly lower than before, after surgery, and on the day of hospital discharge. Therefore, it's found that the intervention effect of comprehensive nursing is significantly higher than that of conventional nursing.

Key Words: Nursing Intervention, Gastrointestinal Cancer, Disease

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Introduction

Gastrointestinal cancer can occur in people of all ages, and its main age of onset is about 40-55 years old, where the male patients occur more than female patients at the male/female ratio about 5:1. The etiology and pathogenesis of gastrointestinal cancer are not yet clear (Hsuan, 2009). Currently the recognized factors in the medical community are viral hepatitis, cirrhosis, environmental factor, iron deposition, chemical carcinogens such as aflatoxin, and genetic factors etc. (Shahidi, 2001). With the advancement of social medical science and technology as well as people's promotion of the health concept, the concept of "early detection and early treatment of gastrointestinal cancer" advocated by the medical community has also been transformed into clinical practice. Therefore, the overall treatment effect on gastrointestinal cancer has also been significantly improved (Kazer, 2003). At present,

the gastrointestinal cancer treatment methods include: surgical treatment, vascular interventional therapy, radiofrequency ablation therapy and drug control therapy, etc., and the vast majority of patients are uncomfortable with surgical treatment, because of the large surgical injury, expensive medical expenses, waste of manpower, and non-ideal prognosis effect etc. As a result, the patients in the middle and late stage of disease have higher acceptance rate for vascular interventional therapy. Therefore, the selective hepatic arterial chemoembolization therapy becomes the first choice for the treatment of gastrointestinal cancer by injecting the chemoembolization drug through the catheter into the arteries (nourishing the tumor) and block the supply of tumor-giving blood vessels; in this way, the first reason is to cause other is to kill tumor cells by chemotherapeutic tumor cells to undergo ischemic necrosis, and the

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drugs, which serves to double kill the tumor cells (Ferlay *et al.*, 2010). Compared with other therapy methods such as surgery and liver transplantation, TACE has multiple advantages such as less bleeding, higher targeting, repeatable treatment, less trauma, lower medical costs, faster patient recovery, and easier patient and family acceptance etc. (Demetris *et al.*, 1987). However, in the process of treating patients, because the patients lack understanding of the disease and misjudge their own diseases conditions, it may cause the patients to have unclear idea of their disease symptoms, complicated treatment methods and nursing methods, and changes in the disorders of the disease, which ultimately leads to the patient's uncertainty about the disease and further affects the disease treatment and nursing work (Poon *et al.*, 2007). But, effective nursing intervention can reduce the patients' uncertainty of disease as well as improve the clinical treatment effect and living quality of patients. Therefore, more attention has been paid to one set of complete, comprehensive and comfortable nursing measures by people (Imamura *et al.*, 2003). Comprehensive nursing intervention is one brand-new clinical nursing intervention method. It is a perfect combination of various nursing measures implemented by nurses in the overall and comprehensive care of the patient to act as an assisted method of disease treating (Fatourou *et al.*, 2014). This paper mainly adopts the conventional nursing intervention method and comprehensive nursing intervention method to measure the expected treatment of patients with gastrointestinal cancer, so as to make comparison, and to master how to improve the clinical treatment effect and life quality of elderly patients with gastrointestinal cancer, as well as improving the prevention of gastrointestinal cancer countermeasures.

70 patients who were eventually diagnosed with gastrointestinal cancer and concurrent TACE treatment in one certain hospital were selected. They were divided into two groups according to the method of random grouping: the experimental group (A) and the control group (B), for 35 patients per group. The experimental group of patients was treated with conventional nursing and comprehensive nursing intervention, while the control group with the conventional nursing. By excluding the influence of unnecessary factors on the two groups of patients, the improvement degree for the

treatment process and the disease uncertainty of prognosis is observed.

Methods

Nursing intervention method

The specific methods are given as follows: 1). On the day of admission, introduction was made about the inpatient ward environment, department heads, doctors in charge, nurses in charge, visiting and accompanying systems, etc.; 2). On the day before surgery, the operation time was announced, including the such information as the purpose of treatment, common complications, auxiliary examination contents, preoperative preparation, preoperative medication, and surgical environment etc.; 3). After the surgery, the postoperative dietary advice, bedtime, complications prevention, activity and exercise, rehabilitation guidance, safety and injury prevention were explained; 4). Before leaving hospital, the patients were informed of nutrition, food hygiene self-regulation and subsequent visit; the above intervention measures were conducted in a face-to-face manner. 5). According to the patient's illness condition, they were inspected every 1 or 2 hours to mainly observe the patient's response after treatment and changes in psychological mood; 6). After the completion of the treatment, the vital signs monitoring was made once every half an hour, it's changed to be measured twice daily when the patient's state got stable.

Comprehensive nursing intervention method

The comprehensive nursing method means to carry out the item-by-item nursing interventions on the basis of the influencing factors of each patient's uncertainty about the disease, so as to achieve the combination of advanced treatment and high-quality nursing measures and eventually reach the expected therapeutic effect on gastrointestinal cancer patients.

Table 1. Comparison of gender composition and age in two groups of data

Group	Gender n (%)		Age (X±s)
	Men	Women	
experimental group	27 (77.0)	8 (23.0)	52.714±8.834
control group	28 (80.0)	7 (20.0)	50.483±9.121
t/x ¹	0.085		1.038
P	0.771		0.303



Table 2. Comparison of marital status and educational level of two groups of data

Group	Marital status n (%)			Degree of Education			
	married	unmarried	Divorce	Primary school	Junior middle school	high school	Undergraduate
Experimental group	31 (88.6)	2 (5.7)*	2 (5.7)*	4 (11.4)	20 (57.1)	9 (25.7)	2 (5.7)*
Control group	28 (80.0)	3 (8.6)	4 (11.4)	5 (14.3)	17 (48.6)	11 (31.4)	2 (5.7)
χ^2	1.022			0.554			
P	0.601			0.907			

Results and discussions

Pre-intervention analysis of patients

In this study, 70 cases of gastrointestinal cancer patients treated in our hospital were selected, including 55 male patients and 15 female patients. By using the randomized method, the test grouping was made to divide all patients into two groups, namely, the control group: 35 cases (conventional nursing method); the test group: 35 cases (conventional nursing method plus comprehensive nursing method). When the patients were admitted to the hospital, their basic conditions were investigated, and then the comparison and analysis were made according to the survey data. The results showed that there were no statistically significant differences between these two groups in terms of the basic data such as male female ratio and age etc. Table 1 shows the comparison of gender composition and ages between these two groups.

Chi-square test analysis was used to statistically analyse the marital status of the two groups of patients, indicating $P > 0.05$, which was not statistically significant. To make statistical analysis of different levels of education, this study was divided into four groups (primary school, junior high school, senior high school, and undergraduate), and statistical analysis was performed on the differences in gastrointestinal cancer inpatients, indicating $P > 0.05$, which means the data comparability between the two groups. Table 2 lists the comparison of the marital status and education composition between these two groups.

For these two groups of patients, the evaluation was made when they were admitted to the hospital. The evaluation results of these patients on admission showed, in terms of uncertainty in illness, the average number of patients was 98.875 ± 4.532 (Experimental group) and 97.743 ± 4.481 (Control group), all in the

Table 4. A comparative analysis of uncertainty in two groups of data

Group	The number of columns	The day of admission	Preoperative	After the operation	The day of discharge
Experimental group	35	$98.875 \pm 4.532^*$	$93.543 \pm 5.266^*$	$89.057 \pm 5.324^*$	$83.914 \pm 5.254^*$
Control group	35	97.743 ± 4.481	96.229 ± 4.492	91.657 ± 4.465	87.200 ± 4.405
t		1.034	-2.296	-2.214	-2.835
P		0.305	0.025	0.030	0.006

middle level in both groups. At this time, there was no significant difference in the average score of disease uncertainty between these two groups, so they were comparable. In terms of psychological assessment, the anxiety state was mainly evaluated. The results showed that the psychological state of the two groups at the time of admission was significantly higher than the national norm (39.91), but there was no significant difference between the two groups of data and they were comparable. The specific data are shown in Table 3.

Table 3. Evaluation results of anxiety state in two groups of patients

Group	The number of columns	Mean of psychological assessment	The norm of the pressure
Experimental group	35	60.200 ± 4.620	39.91
Control group	35	61.314 ± 3.961	
t	0.085	-1.083	
P	0.771	0.283	

Comparison of disease uncertainty between two groups of patients

According to data statistics, the disease uncertainty of the two groups of patients on admission, 1 hour before surgery, 1 day after surgery and the day of discharge was investigated to obtain the specific score of every patient. Then, the level of patient's disease uncertainty was calculated to find that there was no statistical difference in disease uncertainty between the two groups. After taking different forms of nursing, there was significant differences in disease-uncertainty levels between the two groups of patients on 1h before surgery, 1-day after surgery, and the day after discharge, and the disease-uncertainty level in the experimental group was significantly lower than that in the control group. Table 4 shows the comparative analysis of disease uncertainty between the two groups of data.



Table 5. Comparison of disease uncertainty in two groups of data

Group	The number of columns	Before the first day of admission to the hospital	After the first operation on the day of admission	The day of admission to hospital on the day of discharge
Experimental group	35	5.314±2.125*	9.800±2.324*	14.943±2.700*
Control group	35	1.514±0.507	6.086±0.742	10.543±0.980
t		10.290	9.008	9.062
P		0.000	0.000	0.000

Table 6. Comparative analysis of anxiety level of two groups of data

Group	The number of columns	The day of admission	Preoperative	After the operation	The day of discharge
Experimental group	35	60.200±4.620*	55.171±4.67*	49.068±4.111*	44.000±3.199
Control group	35	61.314±3.961	57.600±3.882	51.429±3.475	46.457±3.665
t		-1.083	-2.361	-2.575	-2.988
P		0.283	0.021	0.012	0.004

According to the two groups of data, the difference between the two groups of patients before and after the nursing intervention was analysed and compared to find that the difference value of disease uncertainty between the two groups on the day of admission was significantly reduced that at 1h before surgery, 1-day after surgery, and the day of discharge. Table 5 below lists the comparison of disease uncertainty before and after intervention in the two sets of data. In addition, the behavioural interventions of patients with gastrointestinal cancer before and after the behavioural intervention in this study were not statistically significant ($P>0.05$), maybe because intervention time was limited, and the patients with gastrointestinal cancer themselves chose the rehabilitation method after hospital discharge. However, due to all kinds of trivial matters in the family, the self-recovery measures for patients with gastrointestinal cancer are relatively lax, and the implementation of autonomous rehabilitation measures takes a relatively shorter time, failing to achieve the expected results. Also, many unhealthy behaviours are formed over time and cannot be completely corrected within a short period of time, which further reduces the effectiveness of gastrointestinal cancer nursing interventions.

Comparison of anxiety state between the two groups

Psychological assessment was made for two groups of patients in the four periods of time: hospital admission, 1 hour before surgery, 1 day after surgery, and the day of discharge. Based on the state anxiety scale, the collected data were statistically analysed, to find that between the two groups of patients on the day of hospital admission there is no statistical difference in anxiety level and they are comparable. With the gradual implementation of comprehensive

nursing interventions, the anxiety state of the experimental group patients was significantly reduced, while the anxiety state of the control group patients was not significantly reduced. To compare these two groups of patients, it's found that the anxiety state of the patients in the experimental group was significantly less than that of the control group, with statistical significance. Table 6 shows the comparative analysis of anxiety state between these two groups.

Conclusion and prospects

In this paper, 70 patients with gastrointestinal cancer concurrent TACE treatment in one certain hospital was selected in the experiment. They were divided into two groups according to the method of random grouping: the experimental group (A) and the control group (B), with 35 patients in each group. The patients in the experimental group were treated with conventional nursing and comprehensive nursing intervention while the control group was treated with conventional nursing. Excluding the influence of unnecessary factors on the two groups of patients, the observation was made to the improvement degree of the two nursing methods for the treatment process and disease uncertainty of prognosis, and further find that the effect of comprehensive nursing intervention was significantly higher than of conventional nursing. In addition, the sample size in this study is small, but there are too much contents in the nursing intervention items, which makes it impossible to analyse the specific effects of each intervention, resulting in incomplete research results. Therefore, the sample size can be increased in future to prolong the intervention time, and the multi-centric grouping study based on the intervention can be used to actively exert the



advantages of the nursing intervention in gastrointestinal cancer prevention and treatment.

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