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Effects of Emergency Nursing Procedure on Quality of First Aid for Patients with Acute Cerebral Infarction

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ABSTRACT

Objective: To evaluate the effects of emergency nursing procedure on the quality of first aid for patients with acute cerebral infarction.

Methods: A total of 120 patients with acute cerebral infarction admitted to the emergency department of our hospital from January 2017 to December 2019 were enrolled and divided into control group (n=60) and observation group (n=60) by the random number table. The control group was administrated with conventional emergency nursing while the observation group received emergency nursing procedure. The rescue success rate, rescue time, triage evaluation time, referral time, National Institutes of Health Stroke Scale (NIHSS) score, ability of daily life (ADL) score, adverse emotion score and nursing satisfaction were compared between the two groups.

Results: No significant difference was observed in the rescue success rate between the two groups (P>0.05), but the rescue time, triage evaluation time and referral time in observation group were shorter than those in control group (P<0.05). NIHSS score and ADL score of the two groups were ameliorated after nursing compared with those before nursing (P<0.05). After nursing, NIHSS score was lower in observation group in comparison with that in control group, ADL score in observation group was higher than that in control group, and the differences were significant (P<0.05). Self-Rating Anxiety Scale (SAS) and Self-Rating Depression Scale (SDS) scores of the two groups were lower after nursing compared with those before nursing (P<0.05), and after nursing, SAS and SDS scores were lower in observation group in comparison with those in control group (P<0.05). The overall satisfaction rate of nursing was higher in observation group (96.67%) than that in control group (83.33%), and the difference was significant (P<0.05).

Conclusion: The emergency nursing procedure utilized in the emergency nursing of patients with acute cerebral infarction can effectively shorten the rescue time, ameliorate neurological function and ability of daily life, relieve patients' adverse emotion, and improve the overall satisfaction rate of nursing.

Keywors: acute cerebral infarction; emergency nursing; procedure; first aid; success rate

INTRODUCTION

Acute brain infarction is a popular form of stroke, affecting around 70 percent of all strokes in clinical practice. It has a sudden launch, serious illness and fast advance and is at high risk of injury and death [1-3]. Clinically, immediate cerebral infarction care is recommended and the enhancement of the emergency nursing protocols will strengthen coordination between doctors and nurses to increase the rescue performance of an emergency department [4]. Emergency care is a clinical style that includes a simple task separation and organized operation. In the latest randomized clinical trial, 120 patients with acute brain infarction have also been registered in a group of 120 to examine the effects of the emergency nursing protocol on the standard of first aid for acute brain infarction patients. That is the article.

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MATERIALS AND METHODS

Clinical data

In addition, from January 2017 to December 2019, 120 patients were admitted to our hospital's emergency department with severe brain infarction

in the monitoring unit (n = 60) and observation unit (n = 60) by random numbers. In the test community 32 males and 28 females, aged 50-81 years, were teenagers, aged 64,75±12,37 years old, with a duration of 30-110 minutes, with a total of (78,59±14,20 minutes) from start-up to medical care. The study party composed of 33 males and 27 females, aged between 50 and 82, ranging (64.93±12.45 years) years and 28-115 min, average of (69.08±14.13) min from novice to medical care. There were no major variations in sex, age and period in the first two classes (P>0.05) from the beginning of the procedure, and they were similar. The Ethics Committee of our hospital accepted this research and all participants were informed of the informed consent process and signed.

Inclusion and exclusion criteria

Criteria of inclusion: a) patients presenting with acute stroke of the cerebral infarction with CT and MRI in the acute stage of initiation and requiring immediate attention within 2 hours of onset and with intravenous thrombolysis indicator; c) patients under 45 years of age and d) patients who have an open mind, but who have no consciousness disturbance; Criterion of exclusions: a) Muscular weakness of pre-hospital acute cases, b) extreme liver and kidney disease, c) multiple organ failure patients, or d) psychiatric impairment patients. Withdrawal criterion.

Methods

Conventional health treatment has been provided to the monitoring community. The patients were sent immediately to the emergency room and the condition of the disease was rapidly determined. Under co-operation between doctors and nurses, intravenous thrombolysis was provided. The emergency nursing protocol was obtained from the evaluation party. The medical emergency nursing team was placed together, which comprised chief nurses, senior nurses and ambulance nurses. In keeping with the requirements and the demands of emergency care for severe cerebral infarcts, the team members were prepared for clinical duties, every care contact was appropriately coordinated and an emergency nursing protocol was established. Each person was coordinated for the emergency. A) Creating a green channel: After the 120 ambulance was received, venous access was developed automatically, auxily oxygen was administered, the patient's skin was checked, and the ECG sensor contacts were created to track the blood pressure, cardiac rhythm, body temperature, breathing speed and other critical signals of the patient. The neurologist was told that he was presenting at an emergency room in advance, collaborated along with ambulance staff to arrange for the treatment of severe cerebral infarction, and was advised of the opening of the Green Channel for the medical reception emergency department. The patient was promptly taken to the emergency department as the 120 ambulances appeared in the hospital. B) Nursing before thrombolization: Permission was received after thorough conversation with the patient's family members, it was recommended to engage and assist as thoroughly as practicable in an emergency procedure and the patient's health was reviewed easily and pre-trombolization tests were performed. c) Thrombolytic nursing: The patient 's main symptoms were properly monitored and recorded during thrombolysis, his blood regimen was periodically checked and whether the patient had a bleeding pattern was noted. If it is discovered that the patient was bleeding, it was important to determine whether hemorrhage in the head of the patient and to carry out a CT scan. D) Thromboscope nursing: During medication the patient monitored and reported carefully all the adjustments of the vital signs, measured their psychiatric state, informed the patient and directed the patient for a mental and emotional transition. E) recovery nurses: The patients were evaluated simultaneously with nurses and doctor; the patients were directed to perform physical activity as soon as practicable, from exercises on a bed to out of bed, from passive exercises on a joint to vigorous joint exercises, from a broader exercise on the joint, and from greater j exercise. E) Recovery nursing:

Observation indices

The Rescue Success Rate, Rescue Period, Screening Period, Referral Time, NIHSS, Day Life Facility (DLF), Unfavorable Emotional Data and Job Satisfaction were measured in two categories, respectively.

A), NIHSS score (0-42 points): The better, the more serious the performance was, the more proportionate the neurological disability was [5]. B) ADL scoring (0-100 points), i.e., the higher the score the greater the willingness to do the life in the everyday life [6]. C) Unfavorable mental scores: Self-rated anxiety scale (SAS, 0-100 points) and Self-Rating depression (SDS, 0-100 points): up to 50 points of SAS, anxiety was reached, and the higher the ranking, the more extreme the anxiety. The cumulative score of SDS reached 53 points and the higher the number, the more extreme the depression [7]. D) Self-satisfaction: self-created

questionnaire (validity: 0.90, dependability: 0.88, 0 to 100): quite satisfactory (60 to 80 points), satisfactory and unsatisfactory (0 to 59 points), total nursing satisfaction = (number of cases which have been very satisfactional and number of cases which have been satisfactory) / total number of cases = 100 100 to 100 cases D)

Analyse statistique

The numbers were evaluated by the program SPSS 26.0. The quantitative results were (±s), and an unbiased survey t test performed an intergroup analysis. The statistical data where represented in case (percentage) and the μ2 test was used to conduct intergroup comparisons. Statistically important was known as P<0.05.

RESULTS

Rescue outcomes

No significant difference was observed in the rescue success rate between the two groups (P>0.05), but the rescue time, triage evaluation time and referral time in observation group were shorter than those in control group (P<0.05) (Table 1).

Table 1. **Rescue outcomes**

Group	Case No.	Rescue success rate [case (%)]	Rescue time (min)	Triage evaluation time (min)	Referral time (min)
Control	60	55 (91.67)	16.98±3.27	4.73±0.90	19.65±5.54
Observation	60	57 (95.00)	13.25±2.81	2.81±0.75	13.79±4.07
χ^2/t		0.536	6.701	12.695	6.603
P		0.464	0.000	0.000	0.000

NIHSS scores

NIHSS score of the two groups after nursing was lower than that before nursing (*t*=11.997, 6.421, P=0.000, 0.000). After nursing, NIHSS score was lower in observation group in comparison with that in control group, and the difference was significant (P<0.05) (Table 2).

Table 2. **NIHSS scores (point, $\bar{x} \pm s$)**

Group	Case No.	NIHSS score	
		Before nursing	After nursing
Control	60	17.56±3.07	14.39±2.28
Observation	60	17.49±3.15	11.76±1.94
t		0.123	6.805
P		0.902	0.000

ADL scores

After babies the ADL value for all categories was better than the previous nursery level (t=12.370, 6.709, P=0.000, 0.000). The ADL value for the comparison group was above the control group after nursing and the gap (P<0,05) was important (Table 3).

Table 3. **ADL scores (point, $\bar{x} \pm s$)**

Group	Case No.	ADL score	
		Before nursing	After nursing
Control	60	70.62±4.90	77.21±5.82
Observation	60	70.93±4.85	83.69±6.35
t		0.348	5.827
P		0.728	0.000

Adverse emotion scores

In contrast with before the pre-nursing (t = 11,623, 6,451, P = 0,000), the performance for the ill and the nursing was lower after nursing, with the SDS performance for both classes lower after nursing than before (t = 11,400, 5,993, P = 0,000, 0,000). SAS and SDS ratings were less than those of the Control Group after nursing (P<0.05) and substantial (P<0.05) variations after nursing (Table 4).

Nursing satisfaction degree

The overall satisfaction rate of nursing was higher in observation group (96.67%) than that in control group (83.33%), and the difference was significant (P<0.05) (Table 5).

Table 4. **Adverse emotion scores (point, $\bar{x} \pm s$)**

Group	Case No.	SAS score		SDS score	
		Before nursing	After nursing	Before nursing	After nursing
Control	60	54.57±6.91	47.23±5.47	55.28±6.74	48.37±5.86
Observation	60	54.38±6.95	41.68±4.83	55.09±6.80	42.50±5.19
t		0.150	5.891	0.154	5.809
P		0.881	0.000	0.878	0.000

Table 5. **Nursing satisfaction degrees [case (%)]**

Group	Case No.	Very satisfactory	Satisfactory	Dissatisfactory	Total satisfaction rate
Control	60	25 (41.67)	25 (41.67)	10 (16.67)	50 (83.33)
Observation	60	30 (50.00)	28 (46.67)	2 (3.33)	58 (96.67)
χ^2					5.926
P					0.015

DISCUSSION

A typical cerebrovascular condition is the acute cerebral infarction that is triggered by excessive blood perfusion, also known as ischemical cerebrospinal stroke, a popular form of clinical experience of sudden stroke [8-10]. Acute brain infarction happens primarily in people of middle-aged to elderly age and is typically characterized by dizziness, vomiting, ataxia, and raise intracranial pressure. As the illness advances, herniating and even shocking the brain is fast. Disability and mortality incidence are high, and patients' health and welfare seriously threatened [11].

The key solution for the management of acute cerebral infarction attacks is intravenous thrombolysis, which may remove cerebral emboli rapidly, recover cerebral blutal infusion and alleviate cerebral ischemia [12]. However, intravenous thrombolysis may typically take place within a tight time-frame (2 h) after the disease starts. In comparison, acute brain infarction succeeds easily. Hence, how patients with severe brain infarction would attain an increased medical intervention performance becomes crucial to preserve the life of patients.

In medical care, "time is existence," and the faster emergency procedure is carried out, the greater the medical recovery performance rate. In the emergency rescue process, however, patient care actions are important to save patients and to obtain sufficient time to save their life so that they continue their emergency rescue as quickly as possible. Conventional emergency nursing activities in emergency departments lack a systematic procedure, the linkages between nursing systems are not strongly linked and the distribution between labor in each link is insufficiently transparent, contributing to inadequate early assistance in patients with acute brain infarction and impacting the impact of intravenous thrombolyse. The emergency nursing method is a clinical paradigm that is implemented in the emergency room focused on traditional emergency nursing. It splits healthcare activities into crises and sets up a structured time sheet to deliver medical care in an organized fashion which helps improve the effectiveness of emergency nursing, maximize patients' safety and allow patients to undergo immediate medication to get their condition stabilized as quickly as possible.

Here, the emergency nursing community was contrasted to the traditional emergency nursing control group, and results showed the 2 findings: (1) Rescue period and triage assessment period and comparison period were shorter than those in the controlling category, while after nursing, the measurement group value was lower in NIHSS and Furthermore, the ADL value was higher in the observation team than in the control community. This indicate that the medical care of patients suffering from acute cerebral infarction may help speed up rescue work for patients and obtain time and guarantee that intravenous thrombolia has an impact. This is primarily because of the standardization of emergency care of patients with severe cerebral infarction, which allows emergency nursing practice more common, enshrines all clinical interactions and saves resources. The results were compatible with an earlier literature [14] indicating that the rescue period in the ER community was shorter than in the traditional nursing category, and the NIHSS value during nursing was lower than that of conventional nursing. (2) The SAS and SDS levels in the study community were lower during breastfeeding relative to the control community. In comparison, in the study community (96,67 per cent), average nursing efficiency was higher (83,33 per cent) than

in the control category. It is largely due to the improvement of rescue efficiency by the emergency nursing procedure and the orderly development of emergency nursing work, which can enhance the patients' feeling of comfort, indirectly improve their psychological conditions and improve evaluation of the emergency patient care.

To conclude, the emergency nursing technique used in emergency nursing will successfully reduce the rescue period, enhance everyday cognitive function and capacity, alleviate patients from detrimental feelings and render them more satisfied with nursing services.

REFERENCES

[1] Michael DB, Kamal NH, Dylan PV, etc. Rapid evaluation of acute Ischemic incidents and small injuries at the moment of a cultural change in Canadian emergency departments. Pulse, 2015,46(10), 10962. Pulse.

[2] He F, Xia C, Zhang JH and others. For avoidance of early neuronal decline in the acute ischemic attack, clopidologrel + aspirin or aspirin alone. D Clin N., 2015,22 (1):82-46.

[3] Springs B, Alonso de L, Maria XCA and others. The Madrid Stroke Network Undergo Unsuccessful Interhospital Transition of Endovascular Therapies in Acute Ischemical Stroke. Ruck, 2015,46(8):2156-325.

[4] Analysis of oxidant and anti-oxidant amounts in acute stroke patients in the emergency department Atik hey, Kozacı N, Beydilli Hey, Avcı M, Ellidağ H and Kešaplı M. Emergency Medicine's American Journal. Dec 1 2016;34(12):2379-83.

[5] The NIHSS serial ratings for acute stroke cases are Naess H, Kurtz M, Thomassen L, Waje-Andreassen U. Scandinavian Neural Acta. Jun;133(6):415-20, 2016.

[6] Hospital assessment for edaravone medication for acute cerebral infarction. Sun Z, Xu Qu, Gao G, Zhao M, Sun C. Hospital research Nigerian media. Oct 1 2019;22(10):1324.

[7] Post-hit stress as a proxy for acute ischemaic-stroke-caregiver pressure in China. Dou DM, Huang LL, Dou J, Wang XX, Wang PX. Health & Wellness, Psychology. 28;23(5):541-7 May 2018.

[8] Zhao LB, Xue JJ and others. Elevated levels of serum homocysteine (Hcy) can lead to the cerebral infarction pathogensis. J Mol Neurosci. (2015), 56(3)

[9] Zhang Y, Ding HY, et al. Deng QQ. Calcific emboli from the brachiocephalic trunk which causes the right middle cerebral artery to develop acute cerebral infarction and a wormlike calcification. Knockout, 2015,22(5):869-772.

[10] CH, CH, YX and other schools. Efficacy and protection for the management of acute schemic strokes Intracraneal saccular Aneurysms of ~3 mm. Efficacy and secure care. 2015,72(3):887-893. Biochem Cell Biophys ..

[11] Saver JL, Bonafe A, Goyal M et al. Solitaire (TM) with the aim for Thrombectomy in Primary Endovascular Therapy for Acute Schemical Stroke (SWIFT PRIME): the procedure for an acute ischemical acute study compared Solitaire 's IV tPA revascularizing system with IV tPA alone. J Stroke in Int, 2015,10(3):439-575.

[12] Shailesh NM, Wafai A, Wafai NM, et al. Effect of Stroke imitations and persistent ischemical assault during care with plasminogen intravenous tissue activator. J Cerebrovascular Injury, 2015,24(4):828-833.

[13] Jahnke HK, Zadrozny D, Garrity T, Hopkins S, Frey JL, Christopher M. Stroke and severe stroke teams: two-year experience with one emergency room. Emergency Care Journal. Journal. 2003 1;29(2):133-9. 2003 Apr Li C, Guan J, Chen S. Impact from fast track medical care of patients with severe cerebral infarction on the effectiveness and risk reduction of emergency treatment. Medical and Experimental Medicine Medical Journal. Jan 1 2019;12(8):10443-51.