

## The effect of emergency nursing intervention on the recovery of patients after cardiopulmonary resuscitation

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**Keywords:** emergency nursing intervention; Cardiopulmonary resuscitation; Patients; Effect of rehabilitation

**Abstract: Objective:** To analyze the advantages and characteristics of emergency nursing for patients after cardiopulmonary resuscitation (CPR) in the rehabilitation stage, and to analyze the influence on patients' enthusiasm, so as to improve the recovery speed and effect of patients after CPR. **Methods:** A retrospective analysis of our hospital from July 2018 to July 2019 were between a total of 100 patients with cardiopulmonary resuscitation (CPR) as the research object, according to the patient's individual desire to conclude the problem screening compared convenient to go to two groups, control group nature take routine nursing intervention, observation group based on the topic selection of emergency nursing intervention, on the basis of clinical findings, patients regained consciousness, vital signs is normal, no specific symptoms, no severe discomfort as effective; Patients with normal recovery, vital signs and slight discomfort were considered as significant effects. Patients not awake, vital signs examination and normal value difference is considered invalid, compare the two groups of nursing efficiency. Patients' heart rate (beats /min) was assessed separately. Arterial pressure (kPa); The number and proportion of patients with chest discomfort, fear, convulsion, unresponsiveness and memory impairment were assessed after cardiopulmonary resuscitation. **Results:** In the observation group, 24 cases were effective, 25 cases were obvious, 1 case was not effective, and the overall effective rate was 98%. In the control group, 21 patients were effective, 27 patients were obviously effective, and 2 patients were not effective. The overall effective rate was 96%, and there was a significant difference between the two groups ( $P < 0.05$ ). Heart rate (beats /min) of the two groups before nursing; Arterial pressure (kPa) had little difference in value, and the heart rate after nursing (times /min). Arterial pressure (kPa) was higher in the observation group. There was a small difference in psychological status scores between the two groups before nursing, and a small difference in psychological status (poor) scores between the observation group after nursing, and the heart rate (per /min) of the two groups after nursing. Arterial pressure (kPa) was increased, and psychological status (adverse) was decreased in both groups. There was a significant difference between the two groups ( $P < 0.05$ ). After cardiopulmonary resuscitation, there were 1 case of chest discomfort, 2 cases of convulsion, 3 cases of unresponsiveness, and 2 cases of memory impairment in the observation group. In the control group, there were 12 cases of chest discomfort, 10 cases of convulsions, 7 cases of unresponsiveness, and 6 cases of memory impairment. There was a significant difference between the two groups ( $P < 0.05$ ). **Conclusion:** The rehabilitation of patients after cardiopulmonary resuscitation is particularly important. At this time, the corresponding routine operations such as drug therapy may not be able to assist patients to recover as soon as possible, and emergency nursing intervention and systematic drugs are needed to promote patients to recover life consciousness as soon as possible.

### 1. Introduction

The American Heart Association (AHA) recently released a statement saying that improved cardiopulmonary resuscitation training can save more lives. Currently, 350,000 people suffer cardiac arrest outside hospitals each year, but the survival rate is less than 12 percent. At Beijing international airport, more than 10 people die suddenly every year. Such alarming Numbers make people ponder, master cardiopulmonary resuscitation (CPR), sent to hospital as soon as possible of

cardiopulmonary resuscitation (CPR) is particularly important, and most people due to the lack of medical cognition also believe that as long as after cardiopulmonary resuscitation (CPR) is able to save for recovery after nursing seriously enough, and with the improvement of medical level, the emergency nursing intervention can understand the situation of the patients, inspection, care protection of the patient's vital signs and as soon as possible to help patients return to normal heart rate and other indicators, outcome to a normal life.

## **2. Materials and Methods**

### **2.1 General Materials**

Retrospective analysis of our hospital from July 2018 to July 2019 were between a total of 100 patients with cardiopulmonary resuscitation (CPR) as the research object, according to the patient's individual desire to conclude the problem screening compared convenient to go to two groups, control group nature take routine nursing intervention, the patient men have 36 cases, women in 14 cases, patients' age range at the age of 34 ~ 71, take the average of (50.29 + 7.71) years, the observation group based on the topic selection of emergency nursing intervention, the patient has 30 cases of male, female in 20 cases, patients' age range 33 to 72 years old, The mean age was (49.68±9.57). All the patients improved the symptoms of cardiac arrest and dyspnea after cardiopulmonary resuscitation, timely controlled the poisoning, foreign body blockage, heart disease and other problems of the patients, and opened the airway for the patients. The demand factors of cardiopulmonary resuscitation and treatment process of the patients had little influence on the differences of this reference.

### **2.2 Methods**

Nursing routine: help the patient open the airway, the patient lies on his back to avoid vomiting and other obstruction of the airway, the head is tilted to one side, the nurse holds the patient's neck with her left hand, the right hand presses on the patient's forehead, so that the patient's head is tilted back. Prepare for the second stage of resuscitation, establish electrocardiogram monitoring and venous access, administer intravenous drugs, apply epinephrine, atropine, lidocaine, sodium bicarbonate and other resuscitation drugs accurately and rapidly according to medical advice. Establish the emergency special care record, record in detail the emergency drugs, rescue measures, changes in the condition, access volume and vital signs, etc.

Emergency nursing intervention: maintain the stability of the circulatory system, the heart rate after resuscitation is not stable, should be monitored by ecg, and pay attention to observe the pulse, blood pressure, peripheral circulation (skin, lip color, limb temperature, humidity, finger/toenail color and venous filling, etc.) and urine volume. Keep respiratory tract unobstructed, in order to strengthen the management of respiratory tract, pay attention to the respiratory tract moist and clear respiratory secretions, breathing machine should pay attention to in the application of patients with artificial respiratory machine parameters (tidal volume, inhaled oxygen concentration and respiratory frequency, etc.) to detect and record, in gas of wetting, observe the presence of artificial airway obstruction, pipe connection loose, subcutaneous emphysema, the phenomenon such as ventilation, excessive or inadequate ventilation. Coma patients can be given nasal feeding high - calorie, high - protein diet. After the patient conscious, together with their families about dialogue with patients, help patients to eliminate the disturbance of consciousness as soon as possible, actively do the ideological work of patients, and patients condition of vital signs, for patients to relax and confidence of treatment and nursing and nursing to illustrate active compliance abnormal feeling, convenient nursing staff concern the patient's characteristics in check.

### **2.3 Observation Indicators**

According to the clinical examination results, the patient is deemed to be effective in recovery, normal vital signs, no specific disease, and no severe discomfort. Patients with normal recovery, vital signs and slight discomfort were considered as significant effects. Patients not awake, vital

signs examination and normal value difference is considered invalid, compare the two groups of nursing efficiency. Patients' heart rate (beats /min) was assessed separately. Arterial pressure (kPa); The number and proportion of patients with chest discomfort, fear, convulsion, unresponsiveness and memory impairment were assessed after cardiopulmonary resuscitation.

## 2.4 Statistical Method

The excel SPSS20.0 system was used to carry out the data statistics and analysis. The X<sup>2</sup> test was performed on the counting data, and the t test was performed on the counting data, which was expressed as  $\bar{x} \pm s$ . There was a significant difference in the comparative analysis between the two groups ( $P < 0.05$ ).

## 3. Results

In the observation group, 24 patients were effective, 25 patients were obviously effective, and 1 patient was ineffective, with an overall effective rate of 98%. In the control group, 21 patients were effective, 27 patients were obviously effective, and 2 patients were not effective. The overall effective rate was 96%, and there was a significant difference between the two groups ( $P < 0.05$ ).

Table 1 comparison of overall efficiency in follow-up care of patients in the two groups

Group	n	effective	obviously effective	ineffective	total effective rate
observation group	50	24	25	1	98%
control group	50	21	27	2	96%
X <sup>2</sup>	-	6.058	6.471	6.591	6.754
P	-	<0.05	<0.05	<0.05	<0.05

Heart rate (beats /min) of the two groups before nursing; Arterial pressure (kPa) had little difference in value, and the heart rate after nursing (times /min). Arterial pressure (kPa) was higher in the observation group. There was a small difference in psychological status scores between the two groups before nursing, and a small difference in psychological status (poor) scores between the observation group after nursing, and the heart rate (per /min) of the two groups after nursing. Arterial pressure (kPa) was increased, and psychological status (adverse) was decreased in both groups. There was a significant difference between the two groups ( $P < 0.05$ ).

Table 2 heart rate (beats /min) before and after nursing in the two groups; Arterial pressure (kPa); Psychological status (score) index comparison

classification		observation group	control group	X <sup>2</sup>	P
heart rate (beats /min)	before nursing	40.26±3.02	41.26±3.58	6.235	<0.05
	after nursing	104.08±6.25	85.62±4.12	6.524	<0.05
Arterial pressure( kPa)	before nursing	6.21±2.42	6.18±2.35	6.754	<0.05
	after nursing	9.52±3.41	7.42±3.25	6.582	<0.05
psychologic status( value)	Before nursing	2.36±1.05	2.64±0.27	6.258	<0.05
	after nursing	0.57±0.24	1.74±0.64	6.459	<0.05

After cardiopulmonary resuscitation, there were 1 case of chest discomfort, 2 cases of convulsion, 3 cases of unresponsiveness, and 2 cases of memory impairment in the observation group. In the control group, there were 12 cases of chest discomfort, 10 cases of convulsions, 7 cases of unresponsiveness, and 6 cases of memory impairment. There was a significant difference between the two groups ( $P < 0.05$ ).

Table 3 comparison of adverse symptoms after cardiopulmonary resuscitation between the two groups

classification		observation group	control group	X <sup>2</sup>	P
cheat discomfort	n	1	12	6.235	<0.05
	%	2	24	6.524	<0.05
twitch	n	2	10	6.754	<0.05
	%	4	20	6.582	<0.05
slow in reacting	n	3	7	6.582	<0.05
	%	6	14	6.258	<0.05
hypomnesia	n	2	6	5.282	<0.05
	%	4	12	4.125	<0.05

#### 4. Discussion

Cardiopulmonary resuscitation (CPR) is a coherent and systematic treatment technology, various periods should be closely integrated, take reasonable measures to by artificial respiration and heart press forms such as first aid, combined with the patient to carry on the treatment, the patient should be the first time after the foreign bodies blocked the blockage of the airway clear, ensuring patients breathe unobstructed, open the airway patients, avoid vomit again blocked, such as emergency difficulties, and then mouth-to-mouth resuscitation to make patients tidal volume of 800 ml, blowing should be observed in the patients with thoracic have obvious ups and downs, guarantee the efficiency of each blow, some patients affected by external stress can't speak, Patients after such as electric shock, you can use a form to the nose blowing for artificial respiration, for patients with chest compressions and intrathoracic cardiac compression, the strength of the patients with the control does not reach the designated position likely to cause fracture, etc., each time press should relax the patients chest subsidence after 4 ~ 5 cm, 80 ~ 100 times per minute, when you press the steady and strong, uniform speed. Aiming at the condition of the patients, artificial respiration and compressions should be performed at the same time, the power of operation to evenly composed, rescue organization in the process of emergency care, observation of patients after cardiopulmonary resuscitation (CPR), ready for the second time the recovery work, nursing care team to cooperate, through the emergency department in use of ecg monitoring form observation patient's condition changes, such as by patients shortness of breath, dysphoria, flush on the skin, such as sweat performance determine the situation of the patients and nursing care, observation of the patient's skin at the same time, lip color, limb temperature, humidity, finger/toenail color and vein filling, Avoided during nursing patients with pipe shed, subcutaneous emphysema, and blockage of the airway, bed sore, psychological pressure, with regular care and emergency nursing observation, around the patient's recovery after the performance, help patients to maintain electrolyte balance, the nursing investigation, observation group in addition to routine care, pay attention to the relevant requirements of emergency nursing, less adverse symptoms after recovery, patients recover faster, the overall nursing efficiency is higher, other life indicators are better than the control group, combined with the demand of the patients with cardiopulmonary resuscitation (CPR), should actively expand emergency nursing intervention, has high clinical care. We should continue to build a scientific and excellent culture of cardiopulmonary resuscitation and establish a long-term and effective cardiopulmonary resuscitation training evaluation and quality control system. The publicity of cardiopulmonary resuscitation is actively carried out. Through communication and cooperation with family members in nursing, the quality of life of patients is further improved, the symptoms and needs of patients for resuscitation are accurately judged, and the adverse risks of patients after resuscitation are identified, so that cardiopulmonary resuscitation can achieve efficient first-aid effect.

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