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NURSING MANAGEMENT OF ANAPHYLACTIC SHOCK

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Abstract. Anaphylactic shock is a rapidly developing, life-threatening systemic hypersensitivity reaction to an allergen that requires immediate medical intervention. This condition develops as a result of immunoglobulin E mediated allergic reactions and is characterized by profound vasodilation, a sharp decrease in arterial blood pressure, bronchospasm, respiratory insufficiency, and multi-organ dysfunction. The primary causes of anaphylactic shock include medications, food products, insect stings, and certain biological agents. Due to its severe course and the potential to cause death within a short period, the knowledge and practical skills of nursing personnel are of critical importance. Nursing management in anaphylactic shock involves the rapid assessment of the patient’s condition, cessation of exposure to the allergen, continuous monitoring of vital functions, and the implementation of emergency care measures. The nurse must first ensure airway patency and continuously monitor blood pressure, heart rate, respiratory rate, and oxygen saturation. In addition, under the physician’s guidance, the nurse actively participates in the preparation and administration of epinephrine, antihistamines, glucocorticosteroids, and intravenous infusion solutions. Organizing oxygen therapy, establishing venous access, and maintaining readiness for resuscitation procedures are also among the nurse’s primary responsibilities. Research has demonstrated that properly organized nursing care during the first minutes of an anaphylactic shock episode plays a decisive role in saving the patient’s life. Therefore, nurses should possess comprehensive knowledge of the clinical manifestations of anaphylaxis, diagnostic criteria, and contemporary treatment algorithms. In conclusion, prompt, accurate, and evidence-based nursing interventions in anaphylactic shock significantly improve patient prognosis, prevent the development of complications, and reduce the risk of mortality. The nurse’s professional competence and timely response are essential components of effective emergency management and successful patient outcomes.

Keywords: anaphylactic shock, anaphylaxis, allergic reaction, nursing management, emergency medical care, epinephrine, bronchospasm, arterial hypotension, resuscitation, infusion therapy, oxygen therapy, vital signs monitoring, allergen, intensive care, nursing care.

Introduction

Anaphylactic shock is considered one of the most severe and life-threatening allergic reactions in modern medicine. This pathological condition arises as a result of the body's heightened sensitivity to a specific allergen and is characterized by a rapid and acute disruption of the cardiovascular, respiratory, and other vital systems within a short period of time.

The mechanism of anaphylactic shock development is primarily based on a hypersensitivity reaction mediated by immunoglobulin E. When an allergen re-enters the body, biologically active

substances are released from mast cells and basophils, including histamine, leukotrienes, prostaglandins, and other mediators. As a result, blood vessels dilate, their permeability increases, bronchospasm develops, and arterial blood pressure drops sharply — posing a serious threat to the patient's life.

In recent years, as the prevalence of allergic diseases has been increasing worldwide, cases of anaphylactic shock have also been on the rise. Various medications, antibiotics, vaccines, food products, insect stings, and biological preparations are considered the main causes of anaphylactic reactions. The onset of the condition can range from a few seconds to several minutes. Therefore, timely and qualified assistance is of decisive importance in saving the patient's life.

The role of the nurse in the treatment and care of patients with anaphylactic shock is extremely important. The nurse is often the first medical professional to interact with the patient. For this reason, she must be able to quickly identify the early signs of anaphylaxis, correctly assess the situation, and have a thorough knowledge of emergency care algorithms. Continuously monitoring the patient's condition, tracking vital signs, preparing and administering medications, organizing oxygen therapy, and actively participating in resuscitation measures are among the nurse's primary responsibilities.

Continuously improving knowledge and skills related to anaphylactic shock in nursing practice is of great importance, because correct and prompt decisions made in emergency situations significantly increase the chances of saving the patient's life. Nursing tactics in anaphylactic shock include not only providing emergency care, but also ensuring subsequent monitoring of the patient, preventing complications, and maintaining a safe treatment process. For this reason, studying this topic is of current importance in nursing theory and practice, and serves to improve the quality of medical care and preserve patients' lives.

Discussion

Anaphylactic shock is one of the most severe allergic reactions encountered in clinical practice, and its development poses a direct threat to the patient's life. The effectiveness of medical care provided in this condition depends on timely diagnosis and the rapid implementation of emergency treatment measures. Research shows that properly organized nursing care in the first minutes of anaphylactic shock significantly increases the patient's chances of survival. For this reason, nurses must possess not only theoretical knowledge but also practical skills.

The initial signs of anaphylactic shock can manifest in various ways. Patients experience skin itching, urticaria, swelling of the face and neck, shortness of breath, rapid heartbeat, a drop in blood pressure, and impaired consciousness. Detecting these signs in a timely manner is one of the nurse's important tasks. Early diagnosis allows treatment measures to be initiated without delay and reduces the development of serious complications.

Nursing tactics in anaphylactic shock include several stages. First, it is necessary to stop the allergen's effect and place the patient in a comfortable position. Ensuring the patency of the patient's airway, initiating oxygen therapy, and establishing venous access are essential. Additionally, regular monitoring of blood pressure, pulse, respiratory rate, and oxygen saturation is required. Following the physician's instructions, the nurse prepares and assists in administering adrenaline, antihistamine drugs, glucocorticosteroids, and infusion solutions.

According to international clinical guidelines, adrenaline is the first-choice drug in the treatment of anaphylactic shock. Administering it as early as possible improves the patient's prognosis and reduces the risk of death. The nurse must have sufficient knowledge about the dosage of adrenaline, the method of administration, and its effect on the patient's condition.

Furthermore, monitoring the patient's condition after drug administration and controlling for possible adverse reactions is also of great importance.

Thus, the nurse's level of knowledge, promptness, and sense of responsibility in anaphylactic shock are among the key factors determining the effectiveness of treatment. Enhancing the practical preparedness of nurses to act in emergency situations is of great importance in saving patients' lives and reducing complications.

Research Results

During this study, the nursing tactics in anaphylactic shock and their effect on the patient's condition were analyzed. The results obtained showed that timely identification of the initial signs of anaphylactic shock and the rapid implementation of emergency care measures are important factors in saving the patient's life. According to the research results, qualified medical care provided in the first minutes after the appearance of the initial signs of an allergic reaction significantly reduces the risk of serious complications developing.

Based on observations, the most common clinical signs found in patients presenting with anaphylactic shock were identified as a sharp drop in blood pressure, respiratory distress, tachycardia, skin redness, itching, and angioedema. It was noted that rapid identification of these signs and taking the necessary measures are closely linked to the nurse's professional preparedness. In cases where nurses conducted regular monitoring, the patients' general condition was observed to stabilize within a short time.

The effectiveness of timely adrenaline administration was also evaluated during the study. The results showed that in patients where adrenaline was used in the early stages of anaphylactic shock, restoration of blood pressure and improvement of respiratory function were observed more rapidly. Furthermore, the use of complex treatment methods including oxygen therapy, infusion treatment, and antihistamine drugs contributed to improving the patients' clinical condition.

The research results confirmed that nurses' theoretical knowledge and practical skills directly affect patient prognosis. Nurses who participated in special training sessions on anaphylactic shock were found to act more quickly and effectively in emergency situations. The emergency care algorithms carried out by them helped reduce the need for patients to be transferred to the resuscitation unit.

Overall, the research results demonstrated that the nurse's prompt and skilled actions in anaphylactic shock are of great importance in saving the patient's life, preventing complications, and increasing the effectiveness of treatment. For this reason, organizing regular advanced training courses for nurses on anaphylaxis and anaphylactic shock is one of the urgent tasks of modern medicine.

Conclusion

Anaphylactic shock is one of the most severe and life-threatening hypersensitivity reactions that occurs in the body in response to an allergen. A distinctive feature of this pathological condition is its very rapid development and the fact that it leads to severe disorders of the respiratory and cardiovascular systems within a short time. For this reason, timely and correct medical care in anaphylactic shock is of decisive importance in saving the patient's life.

The analyses conducted and scientific data indicate that early identification of anaphylactic shock, immediate cessation of allergen exposure, and full execution of emergency care algorithms significantly increase the effectiveness of treatment. In this process, the nurse's role is extremely important. The nurse assesses the patient's initial condition, monitors vital signs, participates in

ensuring airway patency, organizes oxygen therapy, and performs the tasks of preparing and administering medications according to the physician's instructions.

The timely use of adrenaline in anaphylactic shock is the most important stage of treatment and is one of the main factors in saving the patient's life. Additionally, the combined use of infusion therapy, antihistamine drugs, and glucocorticosteroids helps restore the body's vital functions. In this regard, the nurse's attentiveness, promptness, and professional responsibility directly affect treatment outcomes.

The research results showed the necessity of continuously improving nurses' theoretical knowledge and practical skills regarding anaphylactic shock. The ability to act correctly and promptly in emergency situations reduces the development of complications, increases the effectiveness of resuscitation measures, and improves the patient's prognosis.

In conclusion, nursing tactics in anaphylactic shock are an integral part of modern medical care and play an important role in saving the patient's life, preventing complications, and improving the effectiveness of treatment. Regular training and strengthening the practical preparedness of nurses is one of the most effective ways to reduce the negative consequences associated with anaphylactic shock.

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