CASE REPORT ARTICLE

NURSING CARE FOR PREGNANT WOMEN WITH SPINAL CORD TRAUMA ASSISTÊNCIA DE ENFERMAGEM À GESTANTE COM TRAUMATISMO RAQUIMEDULAR ASISTENCIA DE ENFERMERÍA A LA GESTANTE CON TRAUMA RAQUIMEDULAR

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ABSTRACT

Objective: to present a plan of care for a pregnant patient who suffered a spinal cord injury. **Method:** this is a descriptive, retrospective study, in the case study modality, performed in the ICU of an emergency hospital. The sample was composed by an 18-year-old pregnant woman. Data collection, charts, bedside visits, and physical examination were used to collect data. CIPE was used for the elaboration of nursing diagnoses and interventions. The results were presented in figure form. **Results:** clinical findings are observed, such as immobility in limbs; pressure injury; use of invasive devices; feelings of fear and emergency cesarean section, from which the Nursing diagnoses that underpinned the care plan were listed. **Conclusion:** it is emphasized that the use of a care plan made possible an integral care according to the dependence, physical and emotional needs, when perceiving the patient and everything that involves it and not only the physio-pathological process of the trauma. In addition to treatment, we sought to prevent future health problems. **Descriptors:** Nursing Care; Pregnant Women; Spinal cord Injuries; Nursing Process; Intensive Care Units; Case Reports.

RESUMO

Objetivo: apresentar um plano de cuidados para uma paciente gestante que sofreu um traumatismo raquimedular. **Método:** trata-se de um estudo descritivo, retrospectivo, na modalidade estudo de caso, realizado na UTI de um hospital de emergência. Compôs-se a amostra por uma gestante de 18 anos. Utilizaram-se, para a coleta de dados, prontuário, visitas à beira do leito e exame físico. Empregou-se, para a elaboração dos diagnósticos e intervenções de Enfermagem, a CIPE. Apresentaram-se os resultados em forma de figura. **Resultados:** observam-se achados clínicos, como imobilidade em membros; lesão por pressão; uso de dispositivos invasivos; sentimentos de medo e cesariana de emergência, a partir dos quais foram elencados os diagnósticos de Enfermagem que embasaram o plano de cuidados. **Conclusão:** ressalta-se que a utilização de um plano de cuidados possibilitou uma assistência integral de acordo com a dependência, necessidades físicas e emocionais, ao perceber a paciente e tudo que a envolve e não apenas o processo fisiopatológico do trauma. Buscou-se, além do tratamento, a prevenção de futuros agravos à saúde. **Descritores:** Cuidados de Enfermagem; Gestantes; Traumatismos da Medula Espinal; Processo de Enfermagem; Unidades de Terapia Intensiva; Relatos de Casos.

RESUMEN

Objetivo: presentar un plan de cuidados para una paciente gestante que sufrió un trauma raquimedular. **Método:** se trata de un estudio descriptivo, retrospectivo, en la modalidad estudio de caso, realizado en la UTI de un hospital de emergencia. Se compuso la muestra por una gestante de 18 años. Se utilizaron, para la recolección de datos, prontuario, visitas al borde del lecho y examen físico. Se empleó, para la elaboración de los diagnósticos e intervenciones de Enfermería, la CIPE. Se presentaron los resultados en forma de figura. **Resultados:** se observan hallazgos clínicos, como inmovilidad en miembros; lesión por presión; uso de dispositivos invasivos; los sentimientos de miedo y cesárea de emergencia, a partir de los cuales se incluyeron los diagnósticos de Enfermería que basaron el plan de cuidados. **Conclusión:** se resalta que la utilización de un plan de cuidados permitió una asistencia integral de acuerdo con la dependencia, necesidades físicas y emocionales, al percibir a la paciente y todo lo que la involucra y no sólo el proceso fisiopatológico del trauma. Se buscó, además del tratamiento, la prevención de futuros agravios a la salud. **Descritores:** Cuidados de Enfermería; Las Mujeres Embarazadas; Traumatismos de la Médula Espinal; Proceso de Enfermería; Unidades de Cuidados Intensivos; Informes de Casos.

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INTRODUCTION

It is known that trauma is the leading cause of death in young adults and can be defined as an unfortunate event resulting from carelessness, ignorance or ignorance. Traumatic injuries may be intentional or unintentional, the former being the result of a deliberate act aimed at injuring or killing.¹

It is noticed that the pregnant victim of trauma is a peculiar patient, since two people are simultaneously affected and the responses to the trauma are compromised by the physiological changes of the gestation, necessitating a systematized nursing care.²

Among the most striking forms of trauma, spindle trauma is defined as any injury to the structures contained in the spinal canal, which can lead to motor, sensory, autonomic and psycho-affective alterations and is considered one of the most serious events which can affect an individual.³ It is estimated that between 250,000 and 500,000 people are victims of SCT each year, with most cases of traumatic origin resulting from traffic accidents, falls and violence.⁴

It is indicated, through studies, that there is a higher incidence of SCT among young male adults, and this event is rare in pregnant women, so that pregnant women with SCT represent a challenge for health professionals working in a trauma hospital, since the cases of pregnancy are not always present in the daily life of these health teams.^{3,5}

It is stated that the nurse and his / her team are among the professionals who provide care to patients hospitalized in an Intensive Care Unit (ICU). It is explained that it is up to this professional to plan the care, providing continuous care to the critical patient, in a systematized manner, which requires theoretical rationale to apply clinical reasoning and technical ability.⁶

It is considered that the Nursing Process (NP) is the methodology used to plan, implement and evaluate care, being essential to the nurses' work.⁷ The NP was regulated by Resolution 358/2009 of the Federal Nursing Council (COFEN), according to which it must be carried out, deliberately and systematically, in all environments where Nursing care takes place.⁸

It is noticed that the occurrence of spinal cord injury in pregnant women is little discussed in the literature, which justifies the importance of this study, in addition to encouraging the planning of Nursing care, presenting a Nursing care plan for the pregnant woman suffering from spinal cord injury and answer the following research question: "How important is a care plan based on the Nursing Process to assist a pregnant woman with spinal cord injury?".

OBJECTIVE

- To present a plan of care for a pregnant patient who suffered a spinal cord trauma.

METHOD

This is a descriptive, retrospective study, in the case study modality, carried out from October to December 2016 in the ICU of an emergency hospital, in Alagoas, Brazil. The sample was composed by an 18-year-old pregnant woman.

The patient was followed during her ICU stay during the practical activities of the Arapiraca Intensive Care Academic League (LATIAR), under the guidance of the coordinating teacher of the league and supervision of the nurses in the sector.

It is explained that LATIAR is an extension project of the Federal University of Alagoas - Campus Arapiraca, developed by students and teachers of the Nursing course, through which integrated activities are developed in teaching-service, with the purpose of sharing knowledge and practices through the approach of students, teachers and professionals of the service, aiming at the improvement of care provided, the humanization of care, as well as the development of scientific research related to intensive care.

For the Nursing history, the patient's chart, visits to the bedside and the physical examination were used. The International Classification for Nursing Practice (CIPÉ)⁹ was used for the elaboration of nursing diagnoses and interventions, with the theoretical reference to Wanda Horta's Theory of Basic Human Needs, Callista Roy's Theory of Adaptation , and Dorothea Orem's Theory of Self-Care Deficit.

The study was carried out with the consent of the patient's family, through the signing of the Free and Informed Consent Form (FICT) and approved by the Research Ethics Committee of the Federal University of Alagoas (UFAL), under opinion number 3,082. 478/2018, respecting Resolutions 466/2012 and 510/2016 of the National Health Council.

RESULTS

• Nursing History

It is reported that a young woman with 18 years of age, pregnant (G1 P0 A0), was admitted to the Emergency Hospital (EH) of the rural alagoano on October 30, 2016, by perforation by firearm (PFA) in anteroposterior cervical spine, inflicted by the companion, when it was transported by the Mobile Emergency Care Service (MECS) of a hospital that was contracted to UHS located in the backlands of Alagoas.

He was conscious at the time of admission to EH, referring to paresis in the limbs and hemodynamically stable. The patient was

classified according to the institution's protocol (adapted from the Manchester Protocol) as an emergency and was admitted to the ICU. It is added that, according to the date of the last menstruation (DLM), the fetus had 27 weeks on the 1st day of hospitalization).

The patient was submitted to surgical intervention, cervicotomy, orotracheal tube for mechanical ventilation, sedation, peripheral venous puncture, cervical Penrose drain, delayed bladder catheter, nasogastric tube without first-aid, chest drain, vasoactive drugs, central venous puncture in subclavian and tracheostomy. It is recalled that, in the 4th IHL, it presented a pressure ulcer (PU) in the sacral region, being able to do the revitalization of the tissue.

Obstetric follow-up was required, with fetal heartbeat (FHB) being monitored, which reached a range of 90 to 194 bpm, at the height of the uterus and fetal presentation and fetal movements.

It was observed in the records of the medical record that, during hospitalization, she presented: suspected atelectasis, arterial hypotension, cardiorespiratory arrest, requiring cardiopulmonary resuscitation, periods of rejection to the oral diet, febrile peaks up to 12 hours, presented instability hemodynamics to left lateral decubitus and hyperemia on catheter insertion.

The 23rd DIH, with a 30-week, two-day GI, was referred to a reference hospital in a risky pregnancy to perform the cesarean section due to fetal distress, since FHB reached 194 bpm. The newborn (NB), after cesarean section, led to death after one week of admission to the neonatal ICU, and the patient returned to the EH for the continuation of care.

It should be emphasized that the patient sometimes presented, after learning about the death of the newborn: "behavior disorder"; "Disorientation"; "Fear", "sadness", "apathy" and "depressive picture" (in the 60th DIH), being often accompanied by psychologists.

The patient was transferred after about three months in the EH to another reference hospital in the same municipality for the continuity of the treatment, returning, after a few days, to the hospital of origin, in the backlands of Alagoas, because of residing in the same municipality.

It is reported that the young woman is currently accompanied by the "Better at home" program by the multi-professional team of the Family Health Strategy, which has continued the conservative treatment and its clinical needs.

• Nursing Diagnosis

Based on the problems identified during the follow-up of the patient and on the observation of her medical record, the main Nursing diagnoses based on CIPE⁹ were enrolled (Figure 1).

Clinical finding	Nursing Diagnosis
Immobility in upper and lower limbs.	Impaired mobility
Pressure ulcer in the sacral region.	Impaired skin integrity
Use of invasive devices: orotracheal tube; probes; venous catheter. Hyperemia on insertion of the venous catheter.	Risk for infection
Use of orotracheal tube	Impaired breathing
Use of delayed bladder catheter	Impaired urinary elimination
Feelings of fear, sadness and apathy.	Current distress
Performing the cesarean section with gestational age of 30 weeks and two days.	Interrupted pregnancy

Figure 1 - Nursing Diagnostics. Arapiraca (AL), Brazil, 2018.

• Planning, implementation and evaluation of Nursing

Based on the Nursing diagnoses listed for this case and considering the records in the patient's

chart, the following Nursing prescriptions, according to CIPE⁹ (Figure 2).

Nursing diagnosis	Planning	Nursing interventions	Shift	Evaluation
Impaired mobility	Keep the patient hygienic and comfortable, also aiming at an adequate blood circulation and lower risk of infections.	Promote self-care.	During the shift.	Self-care needs (food, hygiene, medications) met.
		Positioning the patient.	Every two hours.	
		Promote hygiene.	Every morning.	
Impaired skin integrity	Promoting ulcer healing.	Observe pressure ulcer.	Every morning, after bathing in bed.	There was healing of the ulcer.
		Take care of the wound site.		
		Assess wound		

Risk of Infection	Prevent infection complications.	healing. Assess susceptibility to infection. Monitor the signs and symptoms of infection.	During shift.	Patient free of complications from infection.
Impaired breathing	Maintain oxygenation. Recovery of spontaneous ventilation.	Monitor respiratory status.	During shift	Patient returned to spontaneous ventilation.
Impaired urinary elimination	Promoting the elimination of urine.	Perform water control.	During shift	Adequate urinary elimination.
Current distress	Reduce anxiety symptoms.	Establish trust. Maintaining dignity and privacy.	During shift	Melhor aceitação do atual estado de saúde.
Interrupted pregnancy	Facilitating the process of coping with loss.	Support in the grieving process.	During shift	Adjustment to newborn loss.

Figure 2. Nursing conducts directed to the diagnoses. Arapiraca (AL), Brazil, 2018.

DISCUSSION

It is stated that the consolidation of Nursing as a caring science was linked to overcoming the paradigm that subjugated it as an auxiliary profession of medical practices. It is believed, in this context, that the existence of a methodological instrument to guide professional nursing care and its documentation, as well as a theoretical support to support professional practice, is important for the recognition of Nursing as a profession with solid foundations in the scientific field.^{8,10}

It is argued that Nursing is the science that assists the human being in meeting his basic needs, and should make it, whenever possible, independent of this assistance, through the teaching of self-care, working together with other professionals.¹¹

It should be noted that, in the presence of a spinal cord injury, especially in the acute phase, the individual has practically all their basic needs altered, since they usually present oxygenation disorders, vesical and intestinal eliminations, and locomotion, which makes them dependent on third parties, the nurse being the professional responsible for supplying such disorders with the Nursing interventions and already evaluating the individual's potential for self-care.¹²⁻⁴

The concern with self-care is related to the diagnosis of impaired mobility in the study patient. Self-care is understood as self-directed activity, learned and goal-oriented, with an interest in maintaining health and well-being.¹⁵⁻⁶

It was considered, due to impaired physical mobility, to assess the capacity for self-care and to intervene through the "act or do to someone else" help method, according to Orem's Self-Care Deficit Theory.¹²

It is observed that another diagnosis was committed breathing. Studies indicate that the main cause of death during the acute phase of SCT is respiratory failure, which is why mechanical

ventilatory support is usually used. Attention was drawn to the tracheobronchial hygiene, thus avoiding the accumulation of secretion and, consequently, of pulmonary complications, such as atelectasis, infections or even asphyxia.^{10,17-8}

It is emphasized that, faced with a spinal cord injury, the feelings of anger and bargain are common, especially in the acute phase, and then the patient tends to adapt to the new condition. In the Theory of Adaptation, it is approached by Callista Roy, the individual as a being in constant interaction with environmental changes, being considered an adaptive system that, during the confrontation, needs to release energy to be able to adapt, alleviating the disease. It is reported that, according to this model, it is the duty of the nurse to promote the adaptive responses of the individual to changes in physiological needs, self-concept and interdependent relationships during health and illness.^{12,14,19}

It was observed that the repercussions of the spinal cord injury affect the individual, the family and society, so that their coping leads the family to organize to better understand the individual and to learn to live with the disease and the implications thereof.¹⁰

It is reported that after the stabilization of the clinical picture and the care, being able to be at home, the patient was discharged from hospital, receiving instructions and plans of daily care. You are, in time, the same receiving care in your residence under the care of the family and support of the program at home, is lucid and oriented; restricted to the bed (bed); breathe in ambient air; maintaining good verbal communication; needs help to bathe, dress and sit; reports sensitivity from the elbows; he complained of low back pain, often because he spent most of his time in his dorsal position; following with full skin, without pressure lesions; presenting an improvement in the nutritional status and weight gain.

The importance of the nurse and their team, together with the multi-professional team, in the care of the patient and her relatives in the hospital setting, as well as the guidance for self-care and the necessary care to prevent the possible complications resulting from spinal cord trauma. It was thus favored the social reinsertion of this patient and a better quality of life with its potential remnants.

CONCLUSION

It is concluded that the nursing care given to the pregnant woman with spinal cord trauma, when systematized and based on a theoretical support, can contribute significantly to obtain better results. In this context, through the elaboration of the nursing plan guided by the mentioned nursing theories, it was possible to provide quality assistance to the patient with spinal trauma at the hospital, favoring the rehabilitation process after hospital discharge.

The importance of this case is considered for later research, due to its complexity and obstacles faced by the emergency hospital staff, besides reinforcing the importance of the Nursing Process as a scientific method in the planning, implementation and evaluation of care, being an instrument fundamental to the work of the nurse.

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