Abstract

Introduction: Describe the Nursing diagnosis of the NANDA-I, the interventions of the Nursing Interventions Classification (NIC) and the results of the Nursing Outcomes Classification (NOC) based on a patient with dilated cardiomyopathy associated with Chagas disease.

Material and Methods: It is a case study in a University Hospital in Natal-RN/Brazil. Data were collected in a cardiology ward of this hospital in May, 2011, using an interview script and physical examination. For the development of our case study the following steps of the nursing process (NP) were applied: data collection, nursing diagnosis, planning, where the stages of implementation and evaluation are provided as suggestions as the future care of patients with dilated cardiomyopathy related to Chagas disease. The first stage of NP began with data collection through anamnesis in the physical examination and consulting the records of that patient. After that, we traced the nursing diagnoses using the steps of clinical reasoning and judgment diagnosis suggested by Risner (1986). After establishing the diagnosis, the expected results were plotted according to the NOC and interventions in accordance with NIC.

Results: Male patient, 35 years old, with dilated cardiomyopathy associated with Chagas disease since 2 years ago. The major Nursing Diagnoses (ND), interventions (I) and results (R) that were found are: (ND): decreased cardiac output related to heart rate changes, evidenced by bradycardia, dyspnea and fatigue. (I): Maintain cardiovascular care, such as evaluate the peripheral circulation, monitor vital signs frequently, monitor fluid balance, organize exercise and rest periods to avoid fatigue, and guide the patient about the importance of reporting any chest discomfort. (R): Effectiveness of the cardiac bomb. Secondary ND: Activity intolerance and Fatigue.

Conclusion: The results allowed the development of a nursing care plan that allowed the planning of effective assistance, individual and continuous.

Introduction

The cardiomyopathy is a disease in the cardiac muscle that can be classified according with the structural and functional abnormalities of the cardiac muscle, such as: dilated, hypertrophic, restrictive, arrhythmogenic and non-classified cardiomyopathy. The dilated cardiomyopathy is the most common, affects more men, with an incidence of 5 to 8 cases per 100,000 people per year. It is characterized by an enlargement of the ventricles leading to systolic dysfunction. It occurs because the muscle fibers lose part of their contractile potential and the myocardial cells end up suffering necrosis. These events together result in a decreased amount of blood ejected from the ventricle with the systole causing an increase in the amount of blood that remains in the ventricle after its contraction. The decrease in the stroke volume causes a stimulation of the sympathetic nervous system activating the renin-angiotensin-aldoestrone system, and as a consequence occurs peripheral vascular resistance and high sodium and liquid retention overloading the heart with a high workload. This situation may initiate heart failure. [1]

There are many conditions and diseases that cause dilated cardiomyopathy, including the excessive alcohol ingestion, pregnancy, viral infection and the Chagas disease. The medical diagnosis is commonly accomplished by clinical evaluation, electrocardiogram, chest X-ray and an endomyocardial biopsy. The treatment aims to treat the causes of this disease correcting the heart failure with the use of drugs, low sodium diet, liquid restriction, rest and exercises activities. The dysrhythmias are treated with antiarrythmic drugs and sometimes with the pacemaker implantation [1].

In order to provide quality care and focused on the real needs of the patient with dilated cardiomyopathy associated with Chagas disease, this study was based on the systematization of nursing care through the application of the Nursing Process (NP). The NP consists of an organized way of taking care of the patient and it follows some steps established previously such as data collection, diagnosis, planning, implementation, and the results evaluation.

Believing in the importance of the NP, in the need to use a universal language in teaching and in assisting, and in the importance of the development of the studies to enhance the reflective practice of nursing, came the motivation for this study.

Aim

Describe the Nursing diagnosis of the NANDA-I, the interventions of the Nursing Interventions Classification (NIC) and the results of the Nursing Outcomes Classification (NOC) based on a patient with dilated cardiomyopathy associated with Chagas disease.
Material and Methods

It is a case study in a University Hospital in Natal-RN/Brazil. Data were collected in a cardiology ward of this hospital in May, 2011, using an interview script and physical examination.

For the development of our case study the following steps of the nursing process were applied: data collection, nursing diagnosis, planning, where the stages of implementation and evaluation are provided as suggestions as the future care of patients with dilated cardiomyopathy related to Chagas disease.

The first stage of NP began with data collection through anamnesis in the physical examination and consulting the records of that patient. After that, we traced the nursing diagnoses using the steps of clinical reasoning and judgment diagnosis suggested by Risner (1986), such as: first step involving the analysis (classification of the findings, observing the divergent data or gaps) and the summary of the data (compare findings with rules, concepts and models in the literature and conduct diagnostic inference), and, finally, the second stage involving the redactional construction of the diagnosis (according to NANDA-I) [3].

After establishing the diagnosis, the expected results were plotted according to the NOC and interventions in accordance with NIC [4,5].

Respecting the resolution 196/96 of the National Health, the patient was invited to take part of the study. He was informed about the goals, the voluntary participation, the risks and benefits, and the confidentiality of information.

Results

Male patient, 35 years old, brown, farmer, married and with children. Patient with dilated cardiomyopathy associated with Chagas disease since 2 years ago, and pacemaker since 1 year and 9 months ago. He reports dyspnea on minimal effort for 2 years and 3 months. He denies cigarette consumption, however, reports consumption of alcoholic beverages eventually, until the beginning of his disease. He refers decreased appetite, low sodium diet, 5 meals a day, and water restriction of 1000ml/24h. He reports urination 6 times a day, more frequently during the day, denies discomfort. There is intestinal elimination once a day without change. Sleep preserved on average 8 hours per day, predominantly during the evening, without interruption. He reports having trouble to climb stairs and to walk because of fatigue and shortness of breath. He also reports difficulty in learning new things, reading and memorizing, but he considers important to learn about his disease and treatment. He informs that there is no worry or unhappiness about his sexuality, but there were changes in his sexual physiological function because of fatigue. He informs changes in his way of life in the last two years because of fatigue as well. He has adequate body and oral hygiene. Nowadays he reports difficulty to walk when he is tired and there were no fallings during the last 6 months. Good general condition, conscious, oriented. Intact skin and hydrated, normal colored mucous. Normotensive, bradycardic, tachypneic, normothermic, weight: 68 kg. Normocephalic, wears glasses, isochoric pupils. Paranasal sinuses painless. Lips and oral mucous intact, complete dental arcade. Impalpable and painless lymph nodes, carotids with perceptible symmetrical and weak beats when touched. Thorax symmetric and normal, diminished chest expansion, vesicular murmur on auscultation. Cardiac auscultation sounds hypophonic in two periods, normal rhythm and frequency, apical impulse (ictus cordis) located laterally to the left midclavicular line, diffuse and propulsive. Flat abdomen, painless to palpation, present and hypoactive bowel sounds. Members free of edema, with palpable and symmetric pulses.

The major Nursing Diagnoses (ND), interventions (I) and results (R) that were found are: (ND): decreased cardiac output related to heart rate changes, evidenced by bradycardia, dyspnea and fatigue. (I): Maintain cardiovascular care, such as evaluate the peripheral circulation, monitor vital signs frequently, monitor fluid balance, organize exercise and rest periods to avoid fatigue, and guide the patient about the importance of reporting any chest discomfort. (R): Effectiveness of the cardi bomb. (ND): Activity intolerance related to imbalance between supply and demand of oxygen, evidenced by discomfort and dyspnea, verbal report of fatigue and weakness. (I): Determine the patient's physical limitations, monitor nutritional intake to ensure adequate energy resources, monitor the activity on cardiorespiratory response, and stimulate alternate periods of rest and activity. (R): Tolerance to the activity. (ND): Fatigue related to the state of the disease, evidenced by increased need for rest, increased physical complaints, fatigue, lack of concentration, decreased performance, lack of energy, inability to maintain the usual level of physical activity, lack of libido and verbalization of a constant lack of energy. (I): Encourage the patient to choose activities that slowly compose resistance, encourage physical activity according to the energy resources of the patient. (R) Fatigue level [3].

Discussions

The clinical manifestations of the disease may be unnoticed for years. With the progression of the disease, the patient has dyspnea and fatigue; in addition, symptoms may appear as peripheral edema, nausea, fluid retention, chest pain, palpitations, dizziness and syncope on effort [1].

The diagnosis decreased cardiac output is defined as the insufficient amount of blood pumped by the heart to meet metabolic demands [3]. It was shown by the patient in question when he showed bradycardia, fatigue, and dyspnea. This diagnosis is expected in patients with heart problems, due to impairment of regulatory mechanisms that occurs in these cases [1].

The diagnosis activity intolerance is determined to be physiological or psychological energy insufficient to support or accommodate the required or desired daily activities [3]. The diagnosis of fatigue is defined as a feeling of overwhelming and sustained exhaustion and decreased capacity for physical and mental work in the usual level [3]. These ND are confirmed by the fact that our patient experience discomfort and dyspnea to strains and verbal reports weakness, tiredness, increased need for rest, physical complaints, fatigue, lack of concentration, decreased performance, lack of energy, inability to maintain the usual level of physical activity and lack of libido.

As previously reported cardiomyopathy can initiate heart failure, defined as the inability of the heart to adapt its ejection to their metabolic needs of the body, or just make it through high filling pressures. Thus, the failure will contribute to a decreased cardiac output, since the ejection fractions of the heart are obstructed, resulting in the nursing diagnoses, activity intolerance and fatigue, as the blood pumped to the body is not sufficient for cells carry out their metabolic processes of formation of energy needed to provide strength and vigor to the human body [1].
Conclusion
This study aimed to identify the needs of nursing care in a patient with dilated cardiomyopathy associated with Chagas disease, which led to the establishment of three main NDs, such as: decreased cardiac output, activity intolerance and fatigue. The results allowed the development of a nursing care plan that allowed the planning of effective assistance, individual and continuous.

In addition, we highlight the importance of the construction and use of case studies aimed at updating and discussing the methodology of NP, allowing the development of a reflective practice that is capable of breaking the old models of care based on the fragmentation and disjunction of knowledge, also providing a discussion of nursing diagnoses, outcomes and interventions.

BIBLIOGRAPHY


Publication: October 2011

Your questions, contributions and commentaries will be answered by the authors on the subject in the Cardiovascular Nursing list.

Please fill in the form and Press the “Send” button.

See message: September - October