

NURSING CARE FOR PERIPHERAL ARTERIAL DISEASE: AN EXPERIENCE REPORT

ASSISTÊNCIA DE ENFERMAGEM A DOENÇA ARTERIAL OBSTRUTIVA PERIFÉRICA: UM RELATO DE EXPERIÊNCIA

CUIDADOS DE ENFERMERÍA PARA LA ENFERMEDAD ARTERIAL PERIFÉRICA: UM REATO DE EXPERIENCIA

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ABSTRACT

It is an account of the experience in the care of a patient with a medical diagnosis of peripheral arterial disease accompanied by the Wound Clinic, a project developed by a Multidisciplinary Integrated Residence in Health of Minas Gerais. The patient required follow-up to present toe gangrene in 1st, 2nd and 3rd and ulcers on the dorsum of the right foot. Nursing diagnoses were drawn, so that appropriate interventions were established, and the Diagnostics: Peripheral tissue perfusion ineffective, impaired physical mobility, the risk of infection and acute pain. However, it highlighted the importance of systematization of nursing care, an essential tool for the performance of interventions and management of this care favoring the nurse's performance in a holistic approach as well as foster further investigations. Descriptors: Peripheral Arterial Disease. Nursing Care. Case Studies.

RESUMO

Trata-se de um relato de experiência no cuidado a uma paciente com o diagnóstico médico de doença arterial obstrutiva periférica acompanhada pelo Ambulatório de Feridas, projeto desenvolvido por uma Residência Integrada Multiprofissional em Saúde do interior de Minas Gerais. A paciente necessitou de acompanhamento por apresentar gangrena em pododáctilo 1º, 2º e 3º e úlcera em dorso do pé direito. Foram traçados os diagnósticos de enfermagem, para que fossem estabelecidas as devidas intervenções, sendo os diagnósticos: perfusão tissular periférica ineficaz, mobilidade física prejudicada, risco de infecção e dor aguda. Contudo, evidenciou-se a importância da Sistematização da Assistência de Enfermagem, uma ferramenta essencial para o desempenho de intervenções e de gerenciamento desse cuidado favorecendo a atuação do enfermeiro em uma abordagem integral além de fomentar outras investigações.

Descritores: Doença Arterial Periférica. Cuidados de Enfermagem. Estudos de Casos.

RESUMEN

Es un relato de experiencia en el cuidado de un paciente con un diagnóstico médico de la enfermedad arterial periférica acompañada por la Clínica de Heridas, un proyecto desarrollado por un integrado Residencia Multidisciplinaria de Salud de Minas Gerais. El paciente requiere seguimiento de la actualidad gangrena dedo del pie en primera, segunda y tercera y las úlceras en el dorso del pie derecho. Diagnósticos de enfermería fueron extraídas, de modo que se establecieron las intervenciones apropiadas y de los diagnósticos: la perfusión

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tisular periférica ineficaz, la movilidad física alterada, riesgo de infección y dolor agudo. Sin embargo, se destacó la importancia de la sistematización de la asistencia de enfermería, una herramienta esencial para la realización de las intervenciones y la gestión de este tipo de atención que favorece la actuación de la enfermera en un enfoque holístico, así como fomentar nuevas investigaciones.

Descriptores: Enfermedad Arterial Periférica. Atención de Enfermería. Estudios de Casos.

INTRODUCTION

The Peripheral Arterial Disease (PAD) is a set of chronic or acute conditions from arterial obstructions, resulting in decreased blood flow to the extremities, especially the lower limbs¹. This disease in the lower limbs can lead to amputations and also the risk of development of cardiovascular and cerebral vascular diseases².

Among the main risk factors for its development, there are Diabetes Mellitus (DM), Systemic Arterial Hypertension (SAH), hypertriglyceridemia and smoking³. DM is characterized by the excess blood glucose resulting from an insulin resistance and/or a defect in its secretion⁴. Its development is due to the beta cell's inability to meet the growing demand of insulin to compensate its resistance⁵.

As a multi-systemic disease, DM can cause several complications in individuals. They can be classified into microvascular complications such as neuropathy, nephropathy and retinopathy; and macrovascular complications such as stroke, acute myocardial infarction, and peripheral vascular disease⁴.

There is also evidence of an increased risk of amputation in diabetic patients with PAD, being important an early diagnosis of DM to prevent disability and loss of the body part². It is observed that amputation is linked to various feelings, such as sadness at the loss of a body part, apprehension of the possible dependence in the daily activities as well as relief of pain and discomfort for the odor caused by the injury⁶.

Another risk factor is the SAH, being a multi-factorial disease characterized by high levels of blood pressure, often associated with changes in functionality and/or structure of target organs such as heart, brain, kidneys and blood vessels. Thus, it is observed that PAD among the clinical conditions associated with hypertension⁷. Corroborating this association, studies of individuals with PAD found that 71% of them had hypertension⁸.

As the DM and SAH already mentioned, dyslipidemia has also been highlighted as a predisposing factor for PAD⁸. Dyslipidemia is a disorder characterized by altering serum lipid

levels⁹. Study of people with PAD found that 89% of them had dyslipidemia⁸.

Adding to the above-mentioned factors, the American Diabetes Association (ADA) highlights that smoking associated with diabetes is one of the most important risk factors for PAD². However, by being modifiable factors, they should be analyzed to guide and intervene, reducing costs to the health system³.

The PAD was also evidenced in another study that examined the impacts on the quality of life of individuals, affecting the four domains of quality of life, highlighting the physical domain, followed in descending order by the environmental, psychological and social domain¹⁰. However, observing that this disease causes several complications and affects different aspects of quality of life of individuals, studies aimed at assistance to adequate health care for this disease are necessary. In this sense, the role of the nurses is to be the providers of assistance for qualified health.

Thus, this study came from the experience of lead the author as a nurse multi-professional residence in the health of the elderly in their care practice in an outpatient wound created by an extension project. This study aimed to report the case from the care provided to diabetic patients with PAD and demonstrate nursing

diagnoses and interventions listed for this case.

METHOD

This is a descriptive study, case report type conducted during nursing care in an outpatient wound, a multi-residence extension project, in a city in Minas Gerais in the period from March 2014 to February 2015. The extension project is recorded in PROEXT UFTM with protocol N°. 217,114 of the Federal University of Triângulo Mineiro.

This method was chosen because it is a descriptive tool generating a reflection on actions that were present in a situation experienced in the professional area of interest to the scientific academy¹¹. The achievements of case reports, even in isolated cases, significantly contribute to building knowledge¹². This report, in particular, addressed nursing systematization issues to a person with skin lesions resulting from the PAD, including all effects on their health.

CASE REPORT

The report is of the assistance provided to a patient of the Unified Health System, from November 2014 to February 2015. The patient was represented by the initials M.A.D., 58 years old, female, widowed, pensioner, living in her house

with her daughter, literate, hypertensive, diabetic and sedentary.

The outpatient monitoring was weekly performing dressings on the 1st, 2nd and 3rd toes, and dorsum of the right foot. The analysis of the medical records was performed for the development of this case report, in addition to the care provided. The record of the assistance was described in the paper sheets of the procedures and recorded in a control book.

In October 2014, the patient was admitted to a medical clinic unit of a university hospital in the Triângulo Mineiro region, presenting with the following medical diagnosis: type 2 diabetes for 24 years, hypertension for 8 years, hypothyroidism, Chagas' disease, dyslipidemia and peripheral arterial disease with gangrene of the 1st and 3rd toe and ulcers on the dorsum of the right foot. An arteriography in the affected lower limb was performed, showing: popliteal stenosis of 90% distal, anterior tibial with stenosis of 80%, proximal fibular with proximal stenosis of 90% and occluded posterior tibial.

Initially, the responsible medical team decided that it was not a surgical treatment, by the impossibility of performing angioplasty due to the location of the lesions, aggravations and major complications that may occur with the procedure. The approach followed by the

medical team was waiting for the complete mummification of the toes for later spontaneous amputation. In this period of hospitalization, the evaluation of the resident nurse at the hospital discharge was requested, and the nurse held the referral of patients to the wound clinic, and the patient was assisted weekly.

In the clinic, besides the dressing of the toes and the back of the right foot, there were guidelines on how to perform the dressing at home and the care needed. During the monitoring, it was observed that the right leg was swollen (+2/+4), having difficulty to walk, requiring the help of the caregiver and the patient reported the presence of constant pain at the place. The 2nd toe gangrene also initiated a process because being next to others. With the dressings, there was healing of the ulcer in the back of the member. In February 2015, toes affected by gangrene were amputated.

DISCUSSION

Nurses in their care practice have a management and care work in an interconnected way. The Systematization of Nursing Assistance (SAE) is an essential tool for the performance of interventions and management of this care¹³.

In Brazil, the classification used is the North American Nursing Diagnosis

Association (NANDA) that brings the term nursing diagnosis as “a clinical judgment about an individual response, a family or a community with regard to actual health problems or potential/life processes that provide the basis for definitive therapy which seeks to achieve results where the nurse is required”¹⁴. The use of this classification allows nursing actions, giving visibility to the profession, achieving scientific¹⁵.

Given the situation described, several possible nursing diagnoses were (listed) - according to NANDA taxonomy and nursing interventions¹⁶.

The identified nursing diagnoses and nursing interventions were present below:

Table I: Nursing Diagnoses and Interventions

| NURSING DIAGNOSIS | INTERVENTIONS |
|---|--|
| Ineffective peripheral tissue perfusion, related to diabetes mellitus, hypertension, and sedentary lifestyle, evidenced by edema, healing delayed peripheral wound and pain in the extremity. | <ul style="list-style-type: none"> • To perform fluid control; • Foot care. • Monitoring vital signs. • Supervision of the skin to verify the tissue breakdown and to prevent arterial ulcers. • To guide on, healthy eating. |
| Impaired physical mobility related to pain and discomfort, as evidenced by postural instability, slow movements, and changes in gait. | <ul style="list-style-type: none"> • To encourage the promotion of exercises for balance, stretching and muscle control. • To perform the environment control. • To motivate the self-care. • Foot care. • To perform the supervision of the skin to prevent injuries. |
| The risk of infection related to inadequate primary defenses (injured tissue) and chronic disease (hypertension and diabetes mellitus). | <ul style="list-style-type: none"> • To monitor signs and systemic and local symptoms of infection • To examine the skin and mucous membranes searching for hyperemia, excessive heat or drainage. • To promote adequate nutritional intake. • To teach the patient and family how to avoid infections. • To keep asepsis to the patient at risk. |
| Acute pain related to harmful and agents evidenced by verbal report and observed pain and protective behavior. | <ul style="list-style-type: none"> • To administer prescribed medication for pain before dressing. • To identify the patient, factors that improve or worsen pain. • To evaluate pain: place, features, starting/duration, frequency, intensity or pain severity and precipitant factors. • To monitor vital signs. |

For the dressing, initially the back wound was cleaned with warm saline; in necrosis points, 6% papain was applied being identified by its debriding, anti-

inflammatory and bactericide effects, leading to granulation tissue formation¹⁷.

In the toes gangrene areas, using only digluconate chlorhexidine of 0.5% alcohol

solution to antisepsis was prescribed by the doctor.

CONCLUSIONS:

Thus, PAD requires greater attention and sensitivity of health professionals since patients living with chronic diseases have several limitations in their lifestyle and interaction with the environment requiring specific care. A systematized nursing care is necessary, not being made empirically, but guided by evidence and scientific aspects forming a comprehensive care and quality for the patient.

The use of diagnostic care practice provided constant challenges and promoted critical thinking for the development of activities based on the literature. The experience reported here is important for the construction of knowledge in nursing care practice and this study favored the identification of specific care needs for this disease. Among the limitations of this study, there are several participants studied. As already stated, it is a case report, being relevant to future work related to health care involving a larger number of individuals with this disease.

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