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CHALLENGES AND STRATEGIES OF SYSTEMATIZATION OF NURSING CARE IN THE MANAGEMENT OF CUTANEOUS ANGIOSARCOMA: REFLECTIONS BASED ON A CASE REPORT

Irinéia de Oliveira Bacelar Simplício[1] and Roberta Carolina Assis Palheta[2]

ABSTRACT

Introduction: Cutaneous angiosarcoma is a rare and aggressive neoplasm characterized by accelerated growth, the tendency to infiltrate, and a high risk of complications. **Objective:** To report the application of the Systematization of Nursing Care (NCS) in the management of a patient with cutaneous angiosarcoma, evidencing the importance of this process for qualified and humanized care. **Methodology:** This is an experience report carried out during a supervised internship in a reference hospital, based on qualitative and descriptive methodology. The NCS was structured based on data collection, identification of nursing diagnoses according to NANDA-I, selection of interventions based on the NIC, and evaluation of results according to the NOC. **Results:** The patient had an extensive lesion in the left hemifacial and underwent surgical resection and adjuvant treatment. During follow-up, complications such as flap necrosis and local infection were identified, requiring specific interventions for pain control, infection prevention, maintenance of tissue integrity, and promotion of self-care. The results showed improvement in pain control, progression of healing, and adherence to guidance on home care. **Conclusion:** NCS enables systematized care, contributing to patient safety, the effectiveness of interventions, and the humanization of care. The report reinforces the importance of nursing in oncology and highlights the need for research that expands knowledge about the application of NCS in rare neoplasms.

Keywords: Systematization of Nursing Care. Cutaneous angiosarcoma. Nursing Process. Oncology. Nursing Care.

INTRODUCTION

Cutaneous angiosarcoma is a rare and highly aggressive malignant neoplasm belonging to the group of soft tissue sarcomas. It represents approximately 2% of these tumors, and its incidence is higher in the elderly, especially men over 60 years of age (Cruvinel et al., 2020). Clinically, it can manifest as erythematous-violet macules, plaques, or nodules, often hemorrhagic and asymptomatic, with accelerated growth and a tendency to infiltration and ulceration. The disease has a poor prognosis, with a high mortality rate (KwapnoskI et al., 2024; Miqueloti et al., 2019).

[1] Biomedical Engineering Center, Anhembi Morumbi University, Technological Park of São José dos Campos - SP, Brazil/ Universidade do Estado do Pará – Pá, Brazil
[2] State University of Pará – Pá, Brazil

The etiology of cutaneous angiosarcoma is still poorly understood, but factors such as sun exposure, vascular alterations, and radiotherapy are associated with its development. The definitive diagnosis is established through skin biopsy and immunohistochemistry, using markers such as CD31, CD34, and von Willebrand factor (Wu et al., 2024; Martins and Ferreira, 2023). Factors such as age, sex, and disease subtype also influence clinical outcomes, with a mean five-year survival of 31.6% (KwapnoskI et al., 2024)

Considering the clinical similarity of this neoplasm with other dermatological lesions, histopathological confirmation is essential. Cutaneous angiosarcoma represents approximately 2% of soft tissue sarcomas and predominantly affects individuals over 60 years of age, being more common in males (Cruvinel et al., 2020).

Given the aggressiveness and scarcity of studies on this type of tumor, this report aims to detail the implementation of the Systematization of Nursing Care (NCS) in the management of a clinical case, emphasizing its importance to optimize the quality of care and patient safety, highlighting the relevance of this tool for effective and humanized interventions.

GOAL

To report the application of the Systematization of Nursing Care (NCS) in the management of a patient with cutaneous angiosarcoma, evidencing the importance of this process for qualified and humanized care.

METHODOLOGY

This is a descriptive study of the experience report type with a qualitative approach based on the experience of a nursing student in the 9th semester during a supervised internship at the Regional Hospital of Baixo Amazonas between May 3 and 14, 2024, with a total workload of 60 hours.

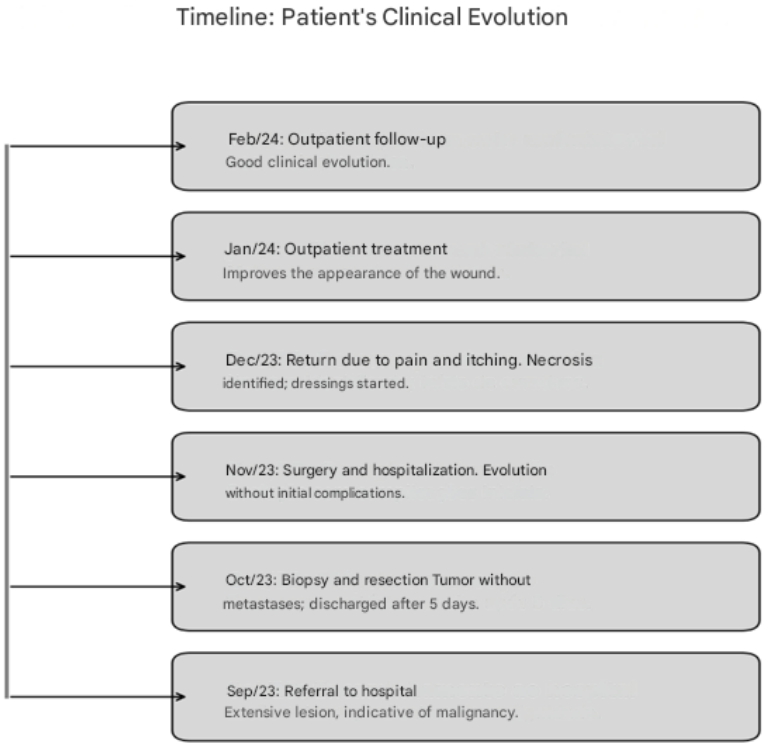
Data collection was carried out systematically, following the stages of the Nursing Process. To this end, a structured approach was applied that included detailed anamnesis, elaboration of nursing diagnoses based on the NANDA-I taxonomy, care planning, implementation of interventions based on the NIC guidelines, and evaluation of the results according to the NOC indicators (NANDA-I, 2023; NIC, 2011; NOC, 2010). This approach allowed for a more in-depth analysis of the case, ensuring the comprehensiveness of the care provided, planning, implementation, and evaluation. The NCS was based on the standards established by NANDA-I, NIC, and NOC, with theoretical support from a literature review

conducted in scientific databases such as SciELO and VHL Health. All procedures followed ethical principles, ensuring confidentiality and respect for the rights of the patients involved.

DEVELOPMENT

Patient J.M.P.C, 73 years old, fisherman, from the Tapari community, Ponta de Pedras – Santarém/Pará. He denies a history of cancer, smoking, comorbidities, and allergies and mentions social alcoholism. He has had an extensive lesion in the left hemifacial (6 cm x 5 cm) in the left malar region and periorbital area since September 2023, during which time he was referred to the hospital for a biopsy. In October 2023, he underwent resection for lesion biopsy, and infiltrative angiosarcoma was evidenced. Also in October 2023, the patient presented without distant metastasis with local disease, an extremely aggressive tumor with a poor prognosis, and urgent hospitalization was indicated for resection surgery with wide margins, with intraoperative frozen section biopsy and flap reconstruction. She underwent the surgery in November 2023, with postoperative care in the ICU for 2 days and follow-up hospitalization in the ward for another 5 days. He was discharged in early December 2023 but returned for an appointment due to pain and itching in the lesion, The case was discussed with the radiotherapist to start chemo followed by radiotherapy urgently. On December 18, 2023, the patient presented necrosis in the flap with areas of dehiscence during the evaluation with the radiotherapist and was referred to the reception for dressing. On December 19, 2023, after evaluation with clinical oncology and the radiotherapist, a doctor was admitted to the reception due to infection in the lesion; the therapeutic goal was chemo. On January 02, 2024, the patient performs a daily dressing in the outpatient sector, primary cleaning with sfo,9% + chlorhexidine degerming + chlorhexidine aqueous, in secondary use alginate plate in the wound, and on edges layers of silver sulfadiazine, covered with sterile gases and bandage, guided on the change of secondary dressings and hygiene both in the wound and body, At the moment, apparently with improvement in his dressing, he is discharged daily with an outpatient return for the next dressings. In June 2024, the patient attended the outpatient sector, was accompanied by his family member, is lucid, oriented about space and time, verbalizing normally. Eupneic in room air, normocardic, afebrile, normotensive, normosaturated. On physical examination, the skin and mucous membranes were normal, the scalp was intact and clean, the nasal and auricular cavities had no visible changes, and the oral cavity was satisfactory. Cervical with good flexibility. UL and LLLL with preserved mobility and good peripheral perfusion. Present and spontaneous physiological functions. Vital signs: TAX 36.0ºc, F.C. 80bpm, F.R. 26rpm, P.A. 110X80, SOT 98%. A dressing was applied to the lesion region, asepsis was performed with

distilled water and 2% aqueous solution, after which an activated carbon plate + sunflower oil + metronidazole was applied to a primary dressing, a secondary dressing was occluded with sterile and micropore gases, and was instructed on the change of the secondary dressing, care and hygiene at home.



Source: prepared by the authors

SYSTEMATIZATION OF NURSING CARE (NCS)

The Systematization of Nursing Care (NCS) is essential for the provision of effective and evidence-based care. To ensure a structured and personalized care plan for the patient, nursing diagnoses were identified according to NANDA-I, nursing interventions were based on the NIC, and expected results were according to the NOC. The following table presents

The main actions planned for the management of patients with cutaneous sarcoma angios focus on the promotion of healing, pain control, infection prevention, mobility, and self-care.

NURSING CARE PLAN

(NANDA-I)	(NOC)	(NIC)
Impaired Tissue Integrity (00248)	**Wound Healing: First Intention (1102)**	**Wound Care (3660)**

(NANDA-I)	(NOC)	(NIC)
Related Factors: Surgical procedure, compromised skin flap, local infection. Evidenced by the presence of necrosis in the flap, areas of dehiscence, and signs of infection.	The patient will present a reduction in necrosis and local inflammation, with the development of granulation tissue and progression of epithelialization, favoring recovery from the lesion.	- Perform primary cleaning with 0.9% SF and antimicrobial agents as prescribed. - Apply appropriate dressings, such as activated carbon plate, sunflower oil, and metronidazole. - Monitor for signs of infection and complications. - Advise the patient and family members on home care and dressing changes.
Risk of Infection (00004)	**Infection Severity Reduced (0703)**	**Infection Control (6540)**
Related Factors: Open wound, local immunocompromise, need for frequent dressings.	The patient will present an absence of signs of infection (decreased purulent exudate, reduced erythema, and local pain), maintaining a controlled inflammatory response.	- Monitor for signs and symptoms of wound infection (flushing, warmth, pain, edema, and purulent exudate). - Use aseptic technique in the performance of dressings. - Ensure the administration of antibiotic therapy as prescribed by the doctor. - Guide proper hygiene and dressing care to prevent new infections.
Sharp Pain (00132)	**Reduced Pain Level (2102)**	**Pain Management (1400)**
Related Factors: Surgical procedure, wound inflammation, manipulation during dressing. Evidenced by the verbal report of pain, restlessness, and difficulty sleeping.	The patient will present pain relief, reporting reduced intensity on a pain scale, with improved comfort and well-being.	- Administer analgesics as prescribed by the doctor. - Apply atraumatic dressings to reduce pain during the change. - Use non-pharmacological measures, such as position changes and relaxation. - Regularly assess pain intensity and response to treatment.
Excessive Anxiety (00146)	**Reduced Anxiety Level (1211)**	**Anxiety Reduction (5820)**
Related Factors: Cancer diagnosis, uncertainty about prognosis, prolonged hospitalization. Evidenced by: Report of intense worry, restlessness, insomnia.	The patient will demonstrate reduced anxiety, reporting a feeling of greater control over the situation and improved sleep quality.	- Encourage the verbalization of feelings and concerns. - Offer emotional support and active listening. - Teach breathing and relaxation techniques. - Encourage family involvement in emotional support. - Provide clear information about treatment and prognosis, reducing uncertainty.
Impaired Spiritual Well-Being (00066)	**Improved Spiritual Well-Being (1201)**	**Promotion of Spiritual Well-Being (5420)**
Related Factors: Severe diagnosis, emotional impact of the disease, questions about the meaning of life. Evidenced by: Report of loss of hope, feelings of hopelessness, and sadness.	The patient will demonstrate improvement in spiritual well-being, reporting acceptance of the condition and greater emotional comfort.	- Stimulate reflections on personal values and beliefs. - Facilitate access to religious or spiritual support according to the patient's preference. - Encourage social interactions and family support. - Offer a welcoming and humanized environment. - Integrate actions of the multiprofessional team for emotional and spiritual support.

The Systematization of Nursing Care (NCS) plays a fundamental role in the care of patients with cutaneous angiosarcoma, a rare and aggressive neoplasm that presents clinical challenges, such as rapid tumor progression, high recurrence rate, and propensity to infectious and scarring complications (Figueiredo et al., 2021; Lopes et al., 2022). The implementation of

NCS allows for a systematic and individualized approach, favoring patient safety, the effectiveness of care, and the promotion of humanized treatment.

In the case reported, the NCS was structured according to the stages of the Nursing Process, enabling the identification of NANDA-I diagnoses, the choice of appropriate interventions according to the NIC, and the definition of expected results according to the NOC. Among the challenges faced in patient care, the need for strict pain control, the prevention of infections in the tumor lesion, the maintenance of tissue integrity, and the support for self-care in the face of the functional limitation imposed by the disease stand out (Kim et al., 2024; Campana et al., 2019).

Studies show that maintaining tissue integrity in patients with cutaneous angiosarcoma requires advanced dressing strategies involving bioactive dressings and rigorous aseptic techniques to minimize the risk of infection (Conic et al., 2020; Trofymenko; Curiel-Lewandrowski, 2018). In addition, pain management should be multidimensional, combining pharmacological analgesia with non-pharmacological methods to provide comfort and quality of life to the patient (Ramakrishnan et al., 2022).

Another point discussed in the literature is the importance of educating patients and their families about the necessary care, ensuring treatment adherence, and preventing complications (Holm et al., 2024). Psychological and social support is an important aspect, considering the emotional impact that the diagnosis and evolution of angiosarcoma can have on the individual and his support network (Wreesmann Oomen; Brennan, 2022; Merfeld et al., 2019).

NCS proved to be an essential tool for the planning and execution of interventions, allowing continuous care adapted to the patient's needs. However, challenges such as the scarcity of specific protocols for nursing in the treatment of angiosarcomas highlight the need for greater scientific production on the subject, favoring the consolidation of evidence-based practices.

Thus, the experience described reinforces the relevance of NCS in oncology, especially in complex conditions such as cutaneous angiosarcoma, and points to the need for additional investigations that can contribute to the improvement of care protocols and the improvement of clinical outcomes in these patients. However, the absence of long-term follow-up of the patient is recognized as a limitation, which could provide a more in-depth analysis of the effectiveness of the interventions applied.

FINAL CONSIDERATIONS

The study highlights the relevance of nursing in the holistic approach to patients with cutaneous angiosarcoma, evidencing NCS as an effective instrument for planning, executing, and evaluating care. NCS has proven to be an indispensable tool for performing targeted interventions, pain control, and prevention of complications. In addition, the humanized approach strengthened the relationship between the health team, the patient, and their families, promoting the improvement of the quality of care. Future studies can contribute to the expansion of knowledge about the application of NCS in similar contexts, consolidating evidence-based practice in nursing.

The study highlights the relevance of nursing in the holistic approach to patients with cutaneous angiosarcoma, separating NCS as an effective instrument for the planning, execution, and evaluation of care.

Future studies should explore multiprofessional approaches and standardized protocols to improve the prognosis of these patients.

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