ISSN: 2230-9926

Available online at http://www.journalijdr.com

IJDR

International Journal of Development Research
Vol. 10, Issue, 10, pp. 41760-41763, October, 2020
https://doi.org/10.37118/ijdr.20306.10.2020

RESEARCH ARTICLE OPEN ACCESS

NURSING CARE FOR PATIENTS AFFECTED BY KENNEDY TERMINAL ULCER: INTEGRATIVE REVIEW

Maria Margarida Costa de Carvalho[1], Érika de Cássia Lima Xavier[2], Ivonete Vieira Pereira[3], Rayanne Bandeira Carneiro[4], Angélica Menezes Bessa Oliveira[1], Kelly Layla da Silva Guterres[1], Deliane Silva de Souza[1], Cristianne de Oliveira Arrais Saraiva[1], Alex Miranda Franco[1], Kamille Martins de Oliveira[1], José Maria dos Santos Coelho[2], Rosivalda Jacirema Cardoso Chaves[5], Laudelana de Paiva Santos[5], Amanda Ventura Félix[5], Ana Karoline Araújo[5], Jessica Lopes Quadros da Silva[5], Felipe Moreira Viegas[q], Raíza Almeida Pereira[4] and Winnie Taíse Pena Macêdo[3]

[1]Hospital Ophir Loyola; [2]Secretaria de Saúde e Meio Ambiente do Pará; [3]Universidade do Estado do Pará; [4]Instituto Nacional do Câncer; [5]Secretaria de Estado Saúde Pública do Pará; [1]Centro Universitário FIBRA

ARTICLE INFO

Article History:
Received 17th July, 2020
Received in revised form
19th August, 2020
Accepted 29th September, 2020
Published online 30th October, 2020

Key Words:
Palliative Care, Oncology Nursing, Chronic Wounds.

****Corresponding author:***
Maria Margarida Costa de Carvalho,

ABSTRACT

Objective: Describe the scientific evidence on Kennedy's ulcer as described in the literature, identifying nursing care for patients with Kennedy's ulcer. Method: Integrative review segmented in six stages. The search took place between 2010-2019 on MEDLINE, LILACS, SciVerse Scopus, ScienceDirect, CINAHL and PUBMED databases, with export to the Rayyan for Systematic Reviews program. Evidence levels were assessed according to Agency for Healthcare Research and Quality.Results: 133 publications were identified and 6 remained, with level of evidence IV, V and VI. The inevitability of Kennedy's terminal ulcer stands out, especially due to the physiological blood hypoperfusion of the skin during terminality, measures to avoid shear and pressure injuries do not reverse the situation that deserves attention and multi-professional dialogue. **Conclusion:** Kennedy's terminal ulcer serves as a marker for those involved in palliative care, giving rise to postures aimed at offering comfort and keen communication. There is still a lack of evidence in primary intervention and follow-up studies in the scientific literature.

Citation: ***Maria Margarida Costa de Carvalho, Érika de Cássia Lima Xavier, Ivonete Vieira Pereira, Rayanne Bandeira Carneiro et al, 2020.*** "Nursing care for patients affected by kennedy terminal ulcer: Integrative review*", International Journal of Development Research*, 10, (10), 41760-41763.

INTRODUCTION

Kennedy's terminal ulcer (KTU) occurs due to the collapse of the largest organ in the human body, the skin, during the death process. Karen Kennedy-Evans was the nurse responsible for describing her in 1983 at a long-term care facility while performing a study of pressure injuries. KTU has characteristics such as: predilection for the sacral region; irregular design; pear, butterfly or horseshoe shape; yellowish, black or purple color; it starts suddenly as a bubble or stage III or IV, the colors may be less indicative for, starting as red abrasion (Kennedy, 2014). The difference of these for pressure injuries comes from the time of progression, starting at times bigger and increasing in size and depth, taking days or weeks for the outcome (Kennedy, 2014; Trombley *et al*., 2012). The Skin Changes At Life End (SCALE) determines the failure of several organs at the end of life, the known systemic involvement of organs is still being studied for the skin, through quantitative models. What is known is that the physiological composition of KTU is incomplete, that it is inevitable at the end of life and that it is necessary to begin to elaborate and disseminate solid diagnostic criteria for it at the end of life (Ayello *et al*., 2019). SCALE informs about the approach of: objective changes in the skin and pain, despite the excellent care, documentation on the client's response, focusing on the patient, ideal care is implemented even without a prognosis for improvement, communication between those involved in terminality and about this biological process,

know what is reduced tissue perfusion, systematic dermatological evaluations, a professional qualified to give the diagnosis, 5 Ps (prevention, prescription, preservation, palliation and preference), and offer the triad professional-client-caregiver clarifications on what constitutes SCALE (Lepak, 2012). This is imperative, but because it has several terms and the lack of knowledge about KTU prevents communication from the multidisciplinary team, especially with the medical team (Ayello *et al*., 2019). Given this, the objective of this integrative review is to describe the scientific evidence on Kennedy's ulcer as described in the literature, identifying nursing care for patients with Kennedy's ulcer.

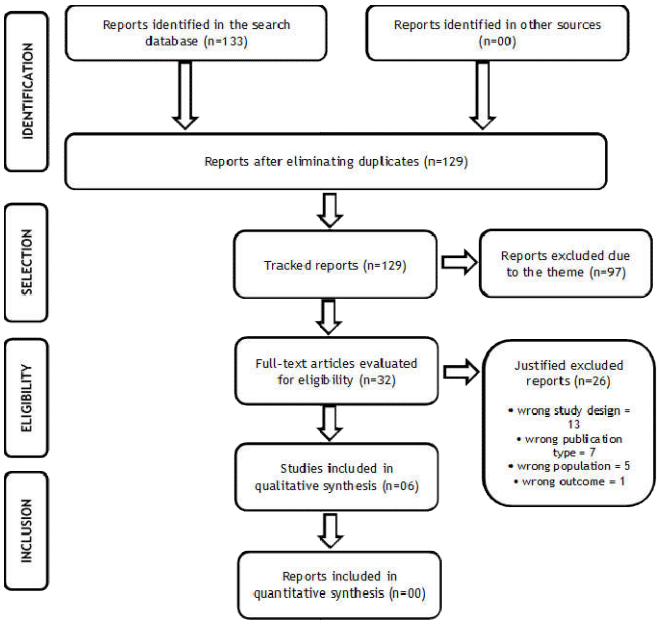
MATERIALS AND METHODS

This is an integrative review. It is configured as a systematic review category that includes six integrated steps. In the development of skills or in the foundation of nursing in evidence, the use of integrative reviews encourages clinical judgment through individual or double analysis by the researchers, in the selection of significant studies for the researched theme and an emphasis on perceived similarities and differences (Hopia et al., 2016). The articles were surveyed from August to September 2019 through online access. In the development of the study, a research protocol was built following the referential as the methodological standard consents (Soares et al., 2014; Mendes et al., 2008): identification of the theme and selection of the research question: What are the scientific evidence about the management of Kennedy's terminal ulcer, as described in the literature ?; establishment of inclusion and exclusion criteria for studies; selection of information to be extracted according to a validated model sheet (URSI; GALVÃO, 2006); interpretation of results; and the presentation of the knowledge synthesis. The search took place in systems of important data sources in the health context: Medical Literature Analysis and Retrieval System Online (MEDLINE), Latin American and Caribbean Literature in Health Sciences (LILACS), SciVerse Scopus, ScienceDirect, Cumulative Index to Nursing & Allied Health Literature (CINAHL) and Public Medline (PUBMED), with data export and organization through the Rayyan for Systematic Reviews program.

As inclusion criteria: articles in English, Spanish and Portuguese in a 2010-2019 timeline. The following were excluded: research without subsidy for nursing, which did not explicitly address Kennedy's terminal ulcer and other review studies. The keywords “Kennedy's ulcer” and “Kennedy's ulcer” and Health Sciences Descriptors (DECS) were combined in one strategy (“cloud of combinations”): “oncology nursing”, “palliative care” linked by Boolean operator AND, the terms of the Medical Subject Headings (MeSH) were: Palliative Care, Oncology Nursing, Chronic Wounds. The level of evidence to denote the methodological quality of each of the publications was analyzed according to the reference of Stetler and collaborators (1998) in 6 levels as recommended by the Agency for Healthcare Research and Quality (AHRQ): level I for meta-analysis; level II for individual experimental study; level III for quasi-experimental study; level IV for non-experimental study, descriptive correlational, qualitative or case research; level V for case report; level VI for the opinion of authorities. With the final composition of the database, the first analysis was guided as provided by Tabulation, Refinement, Presentation and interpretation of data and Discussion and by the Bardin Content Analysis technique (2011) for discussion. In order to contemplate the ethical aspects, the authorship of the researched articles was ensured using only the authors' surnames.

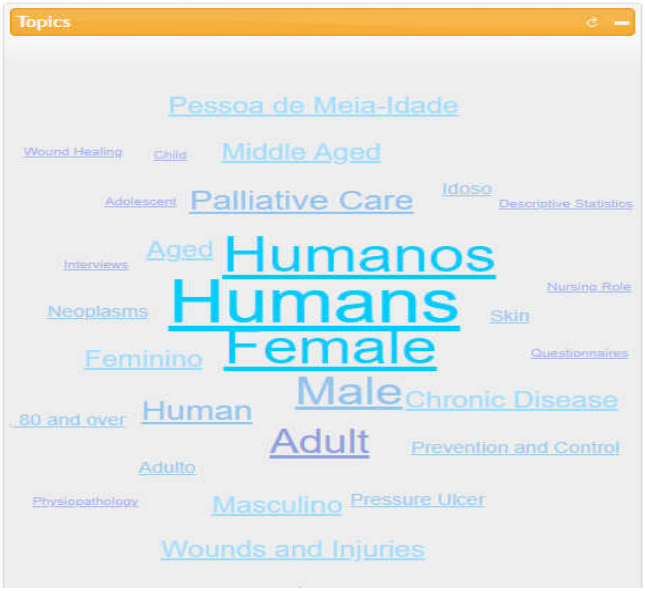
RESULTS

133 studies were identified by applying the inclusion criteria, these results were fully exported to the Rayyan application, comprising 38 publications in PUBMED, 3 publications in SCOPUS, 29 publications in LILACS, 6 publications in MEDLINE, 39 publications in CINAHL and 18 publications on ScienceDirect. In view of the application management, and adopting the exclusion criteria, 6 articles remained (Figure 1).



Source: adapted PRISMA (Galvão et al., 2015).

Figure 1. Search flowchart in the MEDLINE, LILACS, SciVerse Scopus, ScienceDirect, CINAHL and PUBMED databases



Source: https://rayyan.qcri.org/

Figure 2. Review word cloud

Figure 2 demonstrates the disposition of topics through a word cloud, in relation to the terms that are more repeated in the

Chart 1. Articles in the database. Belém, PA, 2020.

Title / Authors	*Objective*	*Method / Level of evidence / Year / Database*
Prelude to Death or Practice Failure? Trombley-Brennan Terminal Tissue Injuries / Trombley, K .; Brennan, M. R .; Thomas, L .; Kline, M.	Define, describe, compare and contrast the skin changes observed in patients at the end of life. Including (1) describing the skin changes seen at the end of life in patients in the CPU and (2) identifying the relationship between skin changes and time of death in patients in the CPU.	Descriptive study of quantitative character / IV / SCOPUS
Prelude to Death or Practice Failure? Trombley-Brennan Terminal Tissue Injury Update / Brennan, M. R .; Thomas, L .; Kline, M.	The purpose of this article is to present the results of the expanded data set on Trombley-Brennan tissue terminal injury and its relationship to the moment of death.	Retrospective descriptive study / IV / SCOPUS
Adecuación del plan de cuidados ante el diagnóstico deúlcera terminal de Kennedy/ Roca-Biosca A.; Rubio-Ricoa L.; Velasco-Guillenby M. C.; Anguera-Saperas L	Present a clinical case of detecting this type of problem in healthcare practice, and plan a treatment plan for a care plan geared to assessing the patient's situation, determining potential real problems, planning the most accurate interventions, how to evaluate the outcome.	Case report / V / LILACS
Adecuación del método científico en cuidados intensivos: paciente con úlcera terminal de Kennedy/ Alconero-Camarero A. R.; Íbañez-Rementería M. I.	----------	Editorial/ VI/ LILACS
"Kennedy Terminal Ulcer" and "Skin Failure," Where Are the Data?/ Olshansky K.	----------	Editorial/ VI/ LILACS
Pediatric Kennedy Terminal Ulcer/ Megan Reitz M, Schindler CA	Identify the difference between pressure ulcers and Kennedy's terminal ulcer according to a case report.	Case report / V / LILACS

Source: research in LILACS, PUBMED, Scopus, MEDLINE, CINAHL and Science Direct databases. Belém, PA, 2020.

articles, with emphasis on: Humans, Palliative Care, Middle Aged, Chronic Disease, Wound Healing, Skin and Neoplasms.It was found in the composition of the sample of 6 articles read in depth by the researchers and evaluation as to the level of evidence, the same was arranged in: 2 studies of level IV, 2 of level V and 2 of level VI (Chart 1).

DISCUSSION

Kennedy's Terminal Ulcer is a tissue event that makes up the process of dying, hours to weeks-months after the patient's death, they are usually abrasive in the sacral region culminating in stage III or IV pressure injury (Reitz & Schindler, 2016), as well as the posterior range of the ischia (Olshansky, 2010). The problems in its identification in chronic patients by specialized nurses are related to the similarity with deep injuries (Trombley et al., 2012). There is a hypothesis for its etiology, which consists of the human organism's effort to divert blood supply to central organs during the dying process, trying to avoid ischemia and collapse, hypoperfusion and not exactly shearing, therefore, the cause of this type of injury due to its exteriority (Olshansky, 2010; Trombley et al., 2012; Reitz & Schindler, 2016). The literature corroborates its inevitability (Trombley et al., 2012; Olshansky, 2010; Reitz & Schindler, 2016), consequently the protocols currently followed for continuous preventive skin care do not cause the expected effect, Keneddy's Terminal Ulcer can be found even when the area does not suffer pressure or trauma (Trombley et al., 2012; Reitz & Schindler, 2016).Despite ensuring the supply to the lungs and kidneys, for example, medicine has not yet found a way to stop the collapse of the skin (Olshansky, 2010), the treatment for Keneddy's Ulcer is limited, but the failure of blood supply to other organs must be the event managed by the team (Reitz & Schindler, 2016). About the multidisciplinary team, in editorial researchers debate about how the problems generated from the identification of this predictive end-of-life injury are found in the context of collaborative problems, problems that despite being treated in part by nursing, require conduct and products prescribed by another professional (Camarero & Rementería, 2017).

Announcing the end of life, the presence of Kennedy's Ulcer calls for a team debate with patient-caregivers to underpin the latest decisions. The nursing actions that standardize frequent repositioning, moisturizers, compresses and removal of pressure on prominences can ensure that the skin does not suffer from shear, but not the appearance of the terminal ulcer, especially in the coccyx (Reitz & Schindler, 2016). Thus, it is a problem that involves the care practice of several professionals, its etiology is medical, which makes the nurse's performance mediated. An important question is to know which intervention methodology is the most appropriate to provide assistance to terminally ill patients with Kennedy's Ulcer, with replicable aspects that can be used in daily practice and not just the academic environment (Camarero & Rementería, 2017). The progression of a Kennedy terminal ulcer in the coccygeal area may start hours earlier as dark erythema, as it is under bone prominence denoting shear forces. The depth increases with the passing of hours and the tissue becomes hardened, reaching the end of life indicator, also reporting possible measures to check bacterial balance with silver activated carbon mesh treatment and minimizing odors in order to to provide quality of death (Roca-Biosca et al., 2016).

Contributions to nursing

Nursing is the profession that has been around for the longest time with the sick, and can observe the continuation of Kennedy's terminal injury. Nevertheless, the diagnoses of the NANDA taxonomy 2018-2020: risk of injury, risk of impaired skin integrity, risk of infection and ineffective peripheral tissue perfusion are guiding the care practice (NANDA, 2018).

CONCLUSION

Kennedy's terminal ulcer is a natural tissue event of the terminality process, whose etiology is linked to the diversion of blood to central organs and the inevitable collapse of the skin terminality and relatively new in relation to the number of studies. Despite being an important precaution, the mitigation of shear forces does not seem to have an effect on the terminal ulcer. Another aspect is the collaborative care problems that

Kennedy's terminal ulcer requires, causing professional communication to be sharpened, especially to guarantee to those involved the necessary information for this management and to guarantee the quality of death. In this sense, the lack of publications, mainly of primary studies, is characterized as strong evidence of the invisibility of this type of injury in palliative care. The present integrative review points out the relevance of the clinical signs, manifested by Kennedy, and suggests that more studies need to be carried out regarding the intervention and mapping of these events longitudinally.

REFERENCES

Ayello, E. A., Levine, J. M., Langemo, D., Kennedy-Evans, K. L., Brennan, M. R., & Sibbald, R. G. (2019). Reexamining the literature on terminal ulcers, SCALE, skin failure, and unavoidable pressure injuries. Advances in skin & wound care, 32(3), 109-121. Disponível em: http://dx.doi.org/10.1097/01.ASW.0000553112.55505.5f

Bardin, L. (2011). Análise de conteúdo. São Paulo: Edições 70.

Brennan, M. R., Thomas, L., & Kline, M. (2019). Prelude to Death or Practice Failure? Trombley-Brennan Terminal Tissue Injury Update. American Journal of Hospice and Palliative Medicine®, 36(11), 1016-1019. Disponível em: https://doi.org/10.1177/1049909119838969

Camarero, A. R. A., & Rementería, M. I. (2017). Adecuación del método científico en cuidados intensivos: paciente con úlcera terminal de Kennedy. Enfermería intensiva, 28(3), 135-136. Disponível em: https://doi.org/10.1016/ j.enfi.2017.02.003

Galvão, T. F., Pansani, T. D. S. A., & Harrad, D. (2015). Principais itens para relatar Revisões sistemáticas e Meta-análises: A recomendação PRISMA. Epidemiologia e Serviços de Saúde, 24, 335-342. Disponível em: https://doi.org/10.5123/S1679-49742015000200017

Hopia, H., Latvala, E., & Liimatainen, L. (2016). Reviewing the methodology of an integrative review. Scandinavian Journal of Caring Sciences, 30(4), 662-669. Disponível em: https://doi.org/10.1111/scs.12327

Kennedy-Evans, K. L. [homepage na internet]. Understanding the Kennedy Terminal Ulcer [acesso em 03 mar 2020]. Disponível em: http://www.kennedyterminalulcer.com/

Lepak, V. (2012). Avoidable & inevitable? Skin failure: The Kennedy terminal lesion. Journal of Legal Nurse Consulting, 23(1), 24-27.

Mendes, K. D. S., Silveira, R. C. D. C. P., & Galvão, C. M. (2008). Revisão integrativa: método de pesquisa para a incorporação de evidências na saúde e na enfermagem. Texto & Contexto-Enfermagem, 17(4), 758-764. Disponível em: https://doi.org/10.1590/S0104-07072008000400018

NANDA. Diagnósticos de enfermagem da NANDA-I: definições e classificação 2018-2020. 11. Ed. Porto Alegre: Artmed, 2018.

Olshansky, K. (2010). "Kennedy terminal ulcer" and "skin failure," where are the data?. Journal of Wound Ostomy & Continence Nursing, 37(5), 466. Disponível em: https://doi.org/10.1097/WON.0b013e3181edea89

Reitz, M., & Schindler, C. A. (2016). Pediatric Kennedy terminal ulcer. Journal of Pediatric Health Care, 30, 274-8. Disponível em: http://dx.doi.org/10.1016/j.pedhc.2015.12.001

Roca-Biosca, A., Rubio-Rico, L., Velasco-Guillen, M. C., & Anguera-Saperas, L. (2016). Adecuación del plan de cuidados ante el diagnóstico de úlcera terminal de Kennedy. Enfermería Intensiva, 27(4), 168-172. Disponível em: https://doi.org/10.1016/j.enfi.2016.03.002

Soares, C. B., Hoga, L. A. K., Peduzzi, M., Sangaleti, C., Yonekura, T., & Silva, D. R. A. D. (2014). Integrative review: concepts and methods used in nursing. Revista da Escola de Enfermagem da USP, 48(2), 335-345. Disponível em: https://doi.org/10.1590/S0080-6234201400002000020

Stetler, C. B., Morsi, D., Rucki, S., Broughton, S., Corrigan, B., Fitzgerald, J. et al. (1998). Utilization-focused integrative reviews in a nursing service. Applied Nursing Research, 11(4), 195-206. Disponível em: https://doi.org/10.1016/S0897-1897(98)80329-7

Trombley, K., Brennan, M. R., Thomas, L., & Kline, M. (2012). Prelude to death or practice failure? Trombley-Brennan terminal tissue injuries. American Journal of Hospice and Palliative Medicine®, 29(7), 541-545. Disponível em: https://doi.org/10.1177/ 1049909111432449

Ursi, E. S., & Galvão, C. M. (2006). Prevenção de lesões de pele no perioperatório: revisão integrativa da literatura. Revista Latino-Americana de Enfermagem, 14(1), 124-131. Disponível em: https://doi.org/10.1590/S0104-11692006000100017

****