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The role of the dental surgeon related to head and neck cancer and palliative care abstract

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The role of the dental surgeon related to head and neck cancer and palliative care abstract

El papel del cirujano dental relacionado con el cáncer de cabeza y cuello y los cuidados paliativos

O papel do cirurgião-dentista nos cuidados paliativos relacionados ao câncer de cabeça e pescoço

ABSTRACT

Palliative care is performed by health professionals who seek to provide a better quality of life for the patient. These can be implemented in situations of coping with terminal or incurable cancer. Objective: to discuss the role of dentists in the practice of palliative care and head and neck cancer. Method: a literature review was carried out, through books available in the UNIFASIPE library and scientific articles, available in Portuguese and English, obtained from electronic databases such as PubMed, SciELO and Academic Google between the years 2000 and 2020. Result: Research has shown that dentists can assist in the early diagnosis of head and neck cancer, in addition to providing greater comfort to patients affected by the disease. Conclusion: dentists play an important role in caring for these patients, aiming to prevent and reduce possible oral complications, providing greater comfort to patients who are terminally ill.

DESCRIPTORS: Palliative care; Head and Neck Neoplasms; Dentistry.

RESUMEN

Los cuidados paliativos son realizados por profesionales de la salud que buscan brindar una mejor calidad de vida al paciente. Estos se pueden implementar en situaciones de afrontamiento de un cáncer terminal o incurable. Objetivo: discutir el papel de los odontólogos en la práctica de los cuidados paliativos y el cáncer de cabeza y cuello. Método: se realizó una revisión de la literatura, a través de libros disponibles en la biblioteca de UNIFASIPE y artículos científicos, disponibles en portugués e inglés, obtenidos de bases de datos electrónicas como PubMed, SciELO y Academic Google entre los años 2000 y 2020. Resultado: Investigación ha demostrado que los dentistas pueden ayudar en el diagnóstico precoz del cáncer de cabeza y cuello, además de brindar mayor comodidad a los pacientes afectados por la enfermedad. Conclusión: los odontólogos juegan un papel importante en el cuidado de estos pacientes, con el objetivo de prevenir y reducir las posibles complicaciones bucales, brindando mayor comodidad a los pacientes terminales.

DESCRIPTORES: Cuidados Paliativos; Neoplasias de cabeza y cuello; Odontología.

RESUMO

Os cuidados paliativos são realizados por profissionais da saúde que buscam proporcionar melhor qualidade de vida ao paciente. Esses podem ser implementados, em situações de enfrentamento de um câncer terminal ou incurável. Objetivo: discutir sobre o papel do odontólogo frente à prática dos cuidados paliativos e ao câncer de cabeça e pescoço. Método: foi realizada uma revisão de literatura, através de livros, disponíveis na biblioteca UNIFASIPE e artigos científicos, disponíveis em língua portuguesa e inglesa, obtidos em bancos de dados eletrônicos como PubMed, SciELO e Google Acadêmico entre os anos de 2000 e 2020. Resultado: A pesquisa demonstrou que o cirurgião-dentista pode auxiliar no diagnóstico precoce do câncer de cabeça e pescoço além de proporcionar maior conforto ao paciente acometido pela doença. Conclusão: o cirurgião-dentista desempenha um importante papel no cuidado com esses pacientes, visando à prevenção e diminuição de possíveis complicações bucais, proporcionando maior conforto ao paciente que encontra-se em estado terminal.

DESCRIPTORES: Cuidados Paliativos; Neoplasias de Cabeça e Pescoço; Odontologia.

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INTRODUCTION

Cancer is a multifactorial disease: there are several components related to its development, such as lifestyle habits, nutritional aspects, hereditary mutations and immunological conditions. Currently, it is also indicated that poor oral hygiene, the regular use of mouthwash with alcohol and the absence of visits to the dentist may be potential risk factors for the occurrence of head and neck cancer (HNC).¹

In the oral cavity, the disease can affect the lips, gums, buccal mucosa, hard palate, tongue (especially the edges), tongue floor, and tonsils. In Brazil, the average of deaths due to cancer is 6.455, with the majority being men, totaling 4.974, and 1.481 women.²

There are different types of strategies for the treatment of head and neck cancer, and the choice will depend on the complexity of the case. The approaches can be performed individually or in combination, with surgery, chemotherapy and radiotherapy being the most frequently used anticancer therapies.³

Care for cancer patients must be comprehensive. For this, actions aimed at promotion, prevention, early detection, treatment and palliative care are needed, encompassing health professionals from different areas so that, in a multidisciplinary way, better care can be delivered and better quality of life for the individual.⁴

The problems caused by HNC

directly affect the quality of life of patients, so that palliative care performed by the dentist, through assessments and interventions, is capable of bringing greater comfort to the neoplastic patient. Among the adverse effects in the mouth resulting from the adopted therapy are mucositis, decreased salivary flow, loss of taste, stomatitis, xerostomia, candidosis, periodontal disease, radiation caries, angular cheilitis, dysphagia, osteonecrosis and tooth loss.^{5,6,7}

Cancer patients usually register greater weakness and, therefore, in addition to facing the fight against cancer, they are subject to acquiring other diseases during treatment, mentioned above. Due to these oral manifestations, the patient's condition can worsen, causing a longer hospital stay and also increasing treatment costs.⁸

The dentist, having vast knowledge in the area of head and neck, is extremely important in monitoring and helping the patient in this process, especially for those in a terminal state. The dentist, through palliative care, will contribute to pain relief and the prevention of future infections, providing an improvement in the patient's quality of life.⁸

All these points demonstrate the relevance of dentistry for the formation of a multidisciplinary care team. The dentist will play an important role in the palliative care of the patient, providing comfort, diagnosing possible intraoral injuries and, therefore, hel-

ping to understand the influence of these changes in cancer treatment and improving the individual's quality of life - because it is about an extremely aggressive and mutilating disease, which generates suffering for both the patient and his family. Given the above, this research aims to discuss the role of dentists in the practice of palliative care and HNC.⁹

METHOD

This research consists of a literature review based on books and scientific articles. As a basis for the study, the following search sites were used: National Library of Medicine (PubMed), Scientific Electronic Library Online (ScieLO) and Google Scholar.

As inclusion criteria, a time frame between 2000 and 2020 in Portuguese and English was used, using the following descriptors in health sciences (DeCS): Palliative Care; Head and Neck Neoplasms; Dentistry.

Articles published in previous years or in languages other than those cited were excluded. In addition, titles and abstracts considered irrelevant to the topic proposed by the research were used as exclusion criteria.

RESULT

The role played by the dentist in the care of patients with hnc and their role in palliative care was analyzed in the literature. To verify the performan-

ce of the dentist, electronic databases and books were used. Inserting the descriptors it was possible to obtain 1,106 scientific articles. After inserting the inclusion and exclusion criteria, 28 articles were eligible for research. After careful analysis, only 25 articles were included, due to their similarity with the research objective. In chart 1, it is possible to observe a synthesis of the studies included in the bibliographical research.

DISCUSSION

The importance of palliative care in dentistry and cancer

The term palliative care is used to designate the action of a multidisciplinary team in patients with no possibility of cure. It started with the Hospice Moderno Movement, started by the English nurse, social worker and physician Cicely Saunders, in 1967.¹⁰

In this context, it is extremely important that the dentist is present in the multidisciplinary team of palliative care. Considering the direct or indirect involvement of the oral cavity with the disease, as well as the possibility of the emergence, as a side effect of the treatment, of several other diseases without oral origin - such as mucositis, developed after chemotherapy treatment - ,

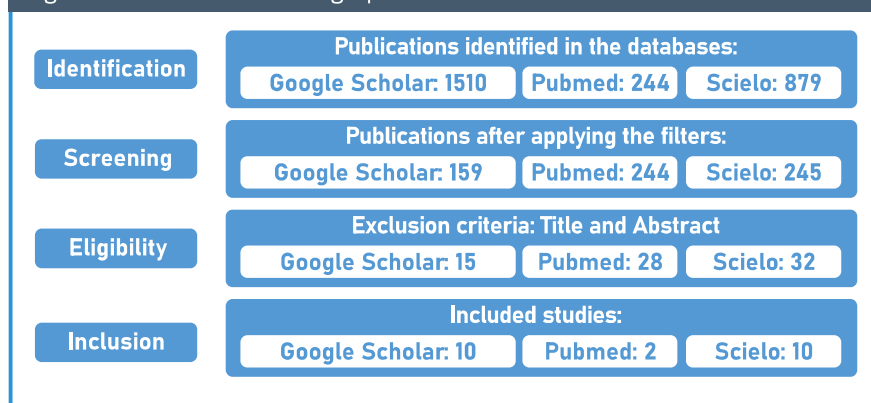
the role of that professional in the care team becomes of great importance.¹⁰

Because of this, the dentist, being in constant contact with the head and neck region - an area in which there are several significant manifestations of the disease -, has an important role in early diagnosis, in aiding proper oral hygiene during treatment in the evaluation of cases and in carrying out interventions that help to promote an improvement in the quality of life of the patient.^{11,12}

The dentist must participate in the multidisciplinary team for the care of palliative patients, and the importance of the role they will play can be seen in the different stages of the disease: whether in the pre-surgical evaluation, in the realization of an early diagnosis and in the intervention in infectious and inflammatory processes ; either acting in the prevention and/or mitigation of the side effects of chemotherapy and radiotherapy treatments for HNC, starting the treatment with a preventive cleaning that eliminates infectious foci in the oral region.^{8,11}

Considering that head and neck neoplasms cause serious oral complications, causing functional restrictions and possibly worsening in cases of in-

Figure 1: Flowchart of bibliographic research



Source: The Authors

Chart 1: Synthesis of bibliographies included in the research

Nº	YEAR	TITLE	OBJECTIVE	METHODOLOGICAL DESIGN
1	2020	Association between oral hygiene and head and neck cancer in Brazil.	To determine whether oral hygiene is associated with the occurrence of cancer in the oral cavity and head and neck in a Brazilian sample.	Analysis of oral hygiene variables in patients from five hospitals in the state of São Paulo, from the multicenter Head and Neck Cancer Genome project.
10	2020	Contributions of the dentist in the palliative care team in an interdisciplinary perspective.	Describe contributions of the dental surgeon in the team of palliative care in an interdisciplinary perspective.	An integrative bibliography review was carried out between the periods 2013 to 2018, verifying palliative care and its correlation with dentistry.
12	2011	Evaluation of the effectiveness of a dental care protocol in relieving pain, oral symptoms and improving quality of life in patients with head and neck cancer undergoing palliative care: an uncontrolled clinical trial.	Evaluate the effectiveness of the dental protocol in the complaints of these patients, as well as their quality of life and survival.	An uncontrolled clinical trial was carried out, including patients with head and neck cancer who were being treated exclusively in palliative care.

Source: The Authors

curable cancer - a situation in which palliative care will be carried out only -, the dentist proves to be an indispensable professional in the treatment of cases of the disease, actively helping to improve the quality of life and alleviate the patient's suffering.^{11,12}

The dental surgeon, working with palliative patients, should always aim for humanized treatment, giving back the maximum possible quality of life and providing relief from their suffering. Palliative treatment and dentistry must always go hand in hand, as it is often through dental treatment that it is possible to establish the oral health of the patient, avoiding complications and the involvement of opportunistic diseases, such as candidiasis.^{12,13}

Through the dental approach, the maintenance of oral health is promoted, with the preservation of teeth, dentures and implants, which prevents periodontal diseases and helps to combat preexisting oral diseases, minimizing patient suffering.¹²

Oral changes resulting from the adopted therapeutic modality

Orofacial pain in the head and neck region results from diseases or abnormalities in soft and mineralized tissues of the oral cavity and face. There is a wide variety of possible causes for pain affecting the facial segment, including: temporomandibular disorder, toothache, trigeminal neuralgia, oral and dental infections, cancer, among others. Among the cancers that most affect the mouth region is squamous cell carcinoma, which is a malignant neoplasm that originates in the lining epithelium.¹⁴

The etiology of oral squamous cell carcinoma may be multifactorial, and may contain both extrinsic and intrinsic factors. Extrinsic factors may include tobacco smoke inhalation, alcohol use and syphilis; among the intrinsic factors, it can include general malnutrition or iron deficiency anemia.¹⁵

Treatment for this disease is defined according to the location of the tumor

and the stage at which it is found, and among its alternatives are surgical, radiotherapy and chemotherapy methods. When the stage of the disease is more advanced, chemotherapy associated with radiotherapy is indicated. However, radiotherapy and chemotherapy not only affect neoplastic cells, but also healthy tissue cells, causing adverse reactions at the systemic level in the oral region, such as osteonecrosis, xerostomia, oral mucositis, candidiasis and radiation caries.¹⁶

The dental surgeon, working with palliative patients, should always aim for humanized treatment, giving back the maximum possible quality of life and providing relief from their suffering.

Osteonecrosis was first described as a consequence of ionizing radiation used to treat malignant tumors. It has been termed osteoradionecrosis and is defined as the exposure of persistent necrotic bone for more than three months in an area previously irradiated with ionizing radiation in excess of

50 Gy. The high rates of radiation to which patients with HNC are submitted, are sufficient for the occurrence of bone necrosis.^{17,18}

Prevention of osteonecrosis is essential. For this, it is recommended to extract teeth with moderate to advanced periodontal disease, extensive periapical lesions, residual roots, among others. Treatment will consist of a combination of therapies, such as the use of antibiotics and corticosteroids, hyperbaric oxygen therapy, bone debridement, and surgical resection followed by reconstruction.^{17,18}

Salivary secretion drastically decreases when the salivary glands are included in the radiation field, and its reduction is directly related to the dose and therapeutic duration of the induced radiation. Xerostomia is constantly reported by patients with HNC: individuals usually complain of oral discomfort, have difficulties in speaking and swallowing, loss of taste, burning sensation, dryness of the lips and propensity to oral infections such as periodontal disease, caries, among others.^{3,19}

Treatment is mainly palliative. It can be performed with chewing and gustatory stimulants, saliva substitutes, and with guidance to stimulate the flow of saliva through the use of sugar-free chewing gums. Periodic ingestion of liquids is also indicated to moisten the oral region.^{3,16}

Mucositis is another manifestation that frequently occurs in the oral cavity of patients undergoing cancer treatment, which can be aggravated by xerostomia due to loss of tissue lubrication and mucosal dehydration. The main complaints of patients are: severe pain, difficulty in swallowing, edema, erythema, increased sensitivity to hot or acidic foods.²⁰

Dental treatment consists of chemical control of oral mucositis. While the patient is undergoing radiotherapy and chemotherapy, the DS, through laser therapy and prescription of an-

ti-inflammatory drugs, relieves pain and inflammation, helping in the healing process of the oral mucosa, decreasing the intensity of mucositis and improving quality of life of the affected patient. Laser therapy contributes to increased cell metabolism, as it stimulates mitochondrial activity, and produces anti-inflammatory, analgesic and wound healing effects.^{16,20}

Candidiasis, on the other hand, results from the drop in salivary flow, which is usually caused as a result of radiotherapy or chemotherapy. Treatment usually consists of the administration of topical oral antifungal agents, such as nystatin, and, in more severe cases, the use of systemic antifungal agents such as fluconazole is indicated.¹⁶

Radiation caries is another common complication resulting from decreased salivary flow – which ends up demineralizing and causing cavitations in teeth – as well as radiation itself, which has a direct effect on teeth and makes them more susceptible to decalcification. Carious lesions usually occur in the cervical region, leaving the enamel opaque and the dentin darkened with a rubbery consistency.²¹

Usually this caries appears in the first 3 months after the start of radiotherapy treatment; therefore, all efforts must be focused on prevention, through good dental treatment prior to radiotherapy. In addition, regular dental appointments must be carried out, the patient must have good oral hygiene and daily application of fluoride.^{21,22}

As seen above, several complications can occur during cancer treatment, which is why the presence of a DS in the multidisciplinary palliative care team is so necessary, thus contributing to a more holistic view, which satisfactorily meets the various needs of terminally ill patients, providing them with a dignified death.⁸

Dental care for patients undergoing cancer treatment

The dentist will directly contribute to the care of the patient who is treating cancer, providing interventions specific to their area of expertise - such as guidance on oral hygiene, infection prevention, prescription of medications to reduce symptoms - and providing a Proper oral cleaning, which ensures a healthier mouth, free from infection and pain.¹⁰

The greatest help that the dentist can provide to a terminally ill patient is the reduction of discomfort and the relief of pain intensity. Therefore, a good history must be taken.

The oral cavity can be considered a mirror of the individual's general health, and surgery, chemotherapy and radiotherapy end up harming oral health. Therefore, the dentist should preferentially provide care before the start of radiotherapy, with extra and intraoral examinations. This measure optimizes antineoplastic therapy, avoiding interruptions in treatment

and improving the quality of life of patients.²³

Dental treatment planning should involve guidance on oral hygiene, care with the use of dentures, prescription of supporting mouthwashes in oral hygiene, fluoridated solutions, topical anesthetics, topical or systemic antifungals, lip moisturizer, artificial saliva, cryotherapy, systemic analgesics and laser therapy.^{23,24}

It is necessary to make an oral adjustment through prophylaxis of the entire dental arch before starting the antineoplastic treatment, and, if the patient has a prosthesis, it should be carried out prophylaxis, the removal of poorly adapted restorations, caries, periodontal scaling, that is: carry out a general maintenance of the oral cavity so that it can receive all the radiotherapy treatment. During the treatment, the patient should clean the oral region with a soft bristle brush, fluoridated toothpaste and rinse with nystatin.²⁵

The greatest help that the dentist can provide to a terminally ill patient is the reduction of discomfort and the relief of pain intensity. Therefore, a good history must be taken. Listening to the patient about the cause of the pain is important because, although its origin may often be related to the disease, in others it may be due to the psychological aspect of the cancer. For this reason, the dentist must always treat the patient individually, and with a good conversation, the true cause of pain can be reached.⁸

When palliative care is introduced at the early stage of the disease, there is a greater chance of prevention against systemic viral and fungal infections, also collaborating with pain relief, and thus providing a smoother transition from the healing phase to the symptom control phase.¹²

Therefore, the dentist who works in palliative care should focus on promoting the patient's quality of life. Understanding and intercommunication are extremely important, as they enable

the necessary bond between dentist, patient, family members and the multidisciplinary team.⁸

CONCLUSION

It is expected that the multidisciplinary palliative care team includes all health professionals, including the

dentist, who plays an important role in the care of these patients, aiming to prevent and reduce possible oral complications, making a big difference in such a delicate moment in the lives of people who are terminally ill. The dentist, as a member of the oncology team, will be able to prepare the patient for radiotherapy and chemothe-

rapy, through preventive measures, with the adequacy of the oral environment, accompany him throughout the treatment and improve the patients' oral hygiene conditions before, during and after the end of the treatment, through palliative care, providing the patient with a much more significant quality of life. ■

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