

Review Article

Palliative Care Dentistry: A Review

Abstract

The palliative team gives warmth of life to the terminally ill patient and takes his/her care in order to maintain their well-being. The oncologists come across various hurdles while treating the problems of oral cavity in such patients. A trained dental professional can give a helping hand in such situations. However, general dental surgeon has minimal amount of knowledge regarding his responsibilities in these treatments. Even, the society is unaware about the potential benefits of a dentist in this area. Adequate learning programs should be included in the undergraduate curriculum and should be educated regarding the same. This review article suggests the forgetting responsibilities of an oral practitioner in palliation and discussing about various goals of palliation and about oral complications in terminally ill patients as well.

Key words: oral practitioner quality of life, palliative care, terminal illness

Introduction

Palliative care can be explained through various numbers of ways following a lot of briefing through words which will potentially escape people's attention in India. WHO defines palliative treatment as, "an approach in order to improve the quality of life of patient & their closed ones encountering with terminal illness confirming probable demise of the patient" Palliative care is not a symptomatic relief but it is also concerned with evaluation & treatment of physical, psychological & spiritual aspects of the life of patient. Almost every country has explicitly mentioned about an individual's fundamental rights in their constitution. All of which play a very important role in leading a sound & healthy life. 'Right to Death' is the only right in which a palliative care team believes. The main motive of palliative care is to enable the terminally ill patient to live the remaining life with ease & quality. He/she should be provided with a choice

for how they want to live the remaining life & they must be enabled to choose the last beep of their heart, the way they want too. The purpose of palliative care is to provide patients & their families with the best possible quality of life. [1] Instead of putting a strain on the curative treatment method, the sole aim should be improving the quality of life. An interdisciplinary approach is unavoidable & needed in palliative medicine. Because the dentist is not a member of the palliative care team, the necessity of dental care is frequently disregarded. [2] Oral cavity lesions have a significant effect on QOL of patients with severe illnesses. They resulted in significant increase in death count & a decline in the physical & mental health of the patients. A diseased or uncomfortable oral cavity might have serious repercussions. Reduced intake orally and loss of appetite have physical consequences, but psychological consequences because of poor communication & thoughts of being excluded & getting isolated from society may also precipitate. Maintaining oral health is essential for oral integrity since it has a huge impact on one's QOL.

Terminal illness breaks a person from inside, it's not easy for anyone to cope up with the news of not being able to live as much as they desire. It is described as a progressive non curative disease from which death is inevitable. This may vary from a few days to months.

Terminal care is the backbone of palliative care treatment & usually involves maintaining the quality of life of patient during his/her last few days or months of life from a point which clearly suggests the unstoppable demise of the patient.

Goals of Palliative care

Palliative care is based on providing a backbone with sole goal of reducing distress and providing spiritual as well as emotional support. The final objective is to build a solid understanding of the identification and provide therapies which encourage ease and enhance quality of life. Compassionate and palliative care is now widely acknowledged as a significant part of patient quality of life care, particularly for people with severe or untreatable diseases like tumor. [3] Regardless of current medical improvements, nearly most of the cancer patients die as a result of their tumor, implying that for every other patient, the goal must ultimately change from saving the life or its extension to palliation. [4] Although palliative care appears to cover a whole lot of services, the focus of palliative treatment is clear:

- psychological and spiritual care,
- alleviation from misery,
- relieving pain and other disturbing conditions,
- a support structure to assist the individual in leading as active life as promising;
- a supporting structure to help the patient's family survive and recover.[5]
- It's also vital to recognize that the word "suffering" is a holistic one that encompasses all aspects of untreatable illness and management of pain.

Quality of Life

Previously a person was considered as healthy when there was absence of any disease or absence of any discomfort to the patient. Therefore, quality of life was described as maintaining the physical functioning of the body. Recent researches have proved that it also includes emotional & psychological well-being of the patient.

Overall QOL includes:

- Physical functioning
- Emotionally stable
- Social status
- Source of income
- Spiritual
- Shape of body & bodily requirements
- Family concerns, etc.

Oral Complications in Terminally ill patient

Palliative patients are diagnosed with a large number of curable oral troubles. However, a significant number of these patients lose their capability to verbalize the pain. As a result, oral problems may be under-reported among these individuals. Oral problems were frequently observed among these patients, with direct or indirect underlying causes such as salivary gland dysfunction in non-lymphoma Hodgkin's or weariness affecting the patient's capacity to maintain

oral hygiene [6, 7]. Medicinal supervision of palliative illnesses, considerably like chemotherapy, has been found to cause oral problems in such patients on several occasions [7]. For instance, the National Cancer Institute of the National Institutes of Health in the USA reported that eighty percent of myeloablative chemotherapy subjects will build up oral health issues, and drugs used in this treatment like bisphosphonates and painkillers have been linked to inflammation in oral mucous and taste disorders [8].

Palliative patients' pain and suffering could be reduced if oral problems were diagnosed and treated early [7]. However, studies reveal that 40 percent of such patients lose their capability to explain oral health necessities they require. Due to which, people may experience treatable oral diseases for an extended time period [9], or they might not be able to communicate of oral uneasiness that they believe is an unavoidable side effect of their medication [10]. This may have a say to ignorance and underestimating of oral problems among patients with incurable disease, resulting in health providers' failure to fully comprehend the problem. According to a 2001 literature assessment of dental care for cancer patients, oral care is provided by lower-level staff having limited training, and also practice should be moved towards oncology nurses [11]. A study of worldwide accommodating health care providers proposed developing an evidence-based practice procedure for oral health care management (by means of a 35 percent response rate). Following are the conditions reported in a terminally ill patient:

- Xerostomia
- Candidiasis or oral thrush
- Dysphagia
- Mucositis
- Taste changes
- Ulceration
- Coughing
- Oral discomfort

Responsibilities of a Dentist in palliative care

Wiseman [13] described palliative care dentistry in a way which explains it to be a study and administration of subjects with active progressing and far complex illness in whom the oral

cavity has been impacted, both directly and indirectly, by the illness or its management; in order to fulfill the sole goal of treatment i.e., QOL. Solid tumors of the facial region including the neck, as well as oral symptoms of hematological malignancies, may be encountered by the dentist. [14] A dentist can assist people in improving their QOL. The mouth is the primary organ of expressing, which is usually impacted in the terminal stages of sickness. A large number of microorganisms live in the oral cavity, aggravating progression of disease. Patients require assistance from an oral practitioner in order to reduce their suffering while experiencing a happier life. They can assist the patient from the first findings of the ailment to pain treatment in the later stages of the disease. However, local dentists are frequently uninformed their obligations to a mortally sick patient. A local dentist can also play an important role, which the community is unaware of. Following are the steps through which a dentist can play his part:

- Diagnosis and making the patient aware
- In the treatment process
- After treatment
- Relieving the pain

Diagnosis and awareness of the patient

Because of the close proximity of important tissues, an oral practitioner could be the foremost to find a case of head and neck cancer. Swelling, ulceroproferative lesions, nonhealing ulcerations, nonhealing extraction socket, trouble swallowing, epiphora, and other symptoms may be present in the patient. The dentist should be able to recognize and link the signs and symptoms. A thorough history should be taken, with special attention paid to the patient's own words. Give the patient's sentiments due consideration and should provide an ear for his sufferings. A thorough history, system overview, medication counteractions, ongoing prescriptions, also a full oral assessment must all be completed and documented for future orientation. [Rani P Mol]

The doctor's first responsibility is to inform regarding the diagnosis. Once completing the necessary tests, try to inform about the 'sad reality' to everyone related to the patient and the patient himself in a loving & caring manner. Pay attention to the patient's reaction and be

supportive of his mental breakdown. While preparing the patient for therapy, it is also necessary to prepare his mind. Explain the treatment to the patient in full, as well as the side effects of the treatment. This will make it easier for patients to deal with difficulties in the future.

In the treatment process

A patient may visit a dentist for a dental check-up soon before starting treatment. Following therapy, a meticulous debridement of plaque & calculus will lower occurrences of infection related to oral cavity. The importance of using NaF preparations should not be overstated. Patients must be informed about oral hygiene precautions. [15] Teeth with poor periodontal health, carious teeth that cannot be repaired, and tips of root must be removed. Invasive operations must be performed at least two weeks prior to chemotherapy or radiotherapy, which ensures a recovery period of 7-14 days. [16] The most common ailment that necessitates the attention of a dentist after the start of treatment is mucositis or stomatitis. [17] These are severe & devastating toxicity of cancer therapy that is dosage and rate limiting. Chemotherapy and radiotherapy have an adverse effect on tissues with a high mitotic rate, such as the oral mucosa. [18] This will result in tissue shrinkage, ulceration, and microbial invasion.

After Treatment

Patients may have difficulty speaking, swallowing, breathing, and looking well after surgery and chemotherapy. An oral practitioner can help the patient deal with such issues to a large extent. Rehabilitation of post-surgery flaws, to the extent possible, will assist the patient in living a better life.

Mirroring the reflection of a Dentist in Palliative Care

Dentist expertise is crucial in palliative care and treatment. People which are critically unwell, unconscious, non-responsive, or terminally ill may not be able to get traditional dental hygiene care. The onset and spread of the lesions of oral cavity may be linked to the disease's direct or indirect progression, treatment, or both. Inclusion of oral practitioner in the team can be summarized as a set of additional dental treatments aimed at delivering the best possible oral care to terminally ill or advanced sick patients, where oral lesions or conditions have a significant impact on the patients' quality of life.

The core principle of oral care in palliative care (OCPC) is based on the idea that good oral hygiene is the most important factor in maintaining oral integrity. Early clinical identification of oral lesions or diseases in palliative patients should be made, and appropriate measures should be taken to reduce pain and suffering by providing symptomatic relief. A thorough examination is required, which includes the use of a glove, torch, and tongue depressor, as well as the removal of any dentures. Oral lesions can be caused by fungi, viruses, bacteria, ulcers, immunosuppression, radiation, and so on. [21, 19] In palliative care patients, oral infections are also common. Oral candidiasis has been studied in this population in a number of investigations. [21, 19] Active dental caries and active gingivitis have been found in 20-35 percent of patients [19,20] and 36 percent of patients, respectively. [22]

CONCLUSION

In India palliative care is disregarded and is supposed to be a myth or a doctor's way to extract as much money as possible. A routine exercise or awareness program regarding palliative care is much required now more than ever as most of the patients of terminal illness are facing the problems discussed above. Either the doctor is not fully able to understand the patient or patient is unable to verbally conduct his worries. Even general oral practitioners have no clue about their part in such treatments. Even the society carries a question mark regarding the duties, responsibilities and capabilities of a dentist. Necessary training programs should be brought into action as soon as possible and spreading awareness is essential. This review effectively concludes that involvement of a trained oral practitioner is a must in palliative care team.

COMPETING INTERESTS DISCLAIMER:

Authors have declared that no competing interests exist. The products used for this research are commonly and predominantly use products in our area of research and country. There is absolutely no conflict of interest between the authors and producers of the products because we do not intend to use these products as an avenue for any litigation but for the advancement of knowledge. Also, the research was not funded by the producing company rather it was funded by personal efforts of the authors.

REFERENCES

1. Cancer pain relief & palliative care. *Technical Report Series 804*. Geneva: World Health Organization; 1980.

2. Wiseman MA. Palliative Care Dentistry. *Gerodontology*. 2000;17:49–51. [
3. Cancer care during the last phase of life. *J Clin Oncol*. 1998;16:1986–96.
4. Bailar JC, 3rd, Gornik HL. Cancer undefeated. *N Engl J Med*. 1997;336:1569–74.
5. Walsh D, Gombeski WR, Jr, Goldstein P, Hayes D, Armour M. Managing a palliative oncology program: The role of a business plan. *J Pain Symptom Manage*. 1994;9:109–18.
6. Ohno T, Morita T, Tamura F, et al. The need and availability of dental services for terminally ill cancer patients: a nationwide survey in Japan. *Support Care Cancer*. 2016;24:19–22.
7. Saini R, Marawar P, Shete S, et al. Dental expression and role in palliative treatment. *Indian J Palliat Care*. 2009;15:26–29.
8. Epstein J. Oral Complications of Cancer and Its Management - Joel Epstein - Google Books, <https://books.google.com.bn/books?id=HNnWIYx5AngC&pg=PA3&lpg=PA3&dq=DIRECT+INDIRECT+CAUSE+OF+PALLIATIVE+ORAL+CONDITIONS&source=bl&ots=HsVdvae7yz&sig=OaCazVj0wB4mBsbaNS44H8OL-Go&hl=en&sa=X&ved=2ahUKewi1v47HzareAhUKwrwKHSOqBU8Q6AEwC3oECAIQAQ#v=onepage&q=DIR> (accessed 29 Oct 2018).
9. Chen X, Chen H, Douglas C, et al. Dental treatment intensity in frail older adults in the last year of life. *J Am Dent Assoc*. 2013;144:1234–1242. Fischer DJ, Epstein JB, Yao Y, et al. Oral health conditions affect functional and social activities of terminally ill cancer patients. *Support Care Cancer*. 2014;22:803–810. Miller M, Kearney N. Oral care for patients with cancer: a review of the literature. *Cancer Nurs*. 2001;24:241–254. Barker GJ, Epstein JB, Williams KB, et al. Current practice and knowledge of oral care for cancer patients: a survey of supportive health care providers. *Support Care Cancer*. 2005;13:32–41.
10. Wiseman MA. Palliative care dentistry. *Gerodontology*. 2000;17:49–51.
11. Haddad R, Annino D, Tishler RB. Multidisciplinary approach to cancer treatment: Focus on head and neck cancer. *Dent Clin North Am*. 2008;52:1–17.
12. Cheng KK, Molassiotis A, Chang AM, Wai WC, Cheung SS. Evaluation of an oral care protocol intervention in the prevention of chemotherapy-induced oral mucositis in paediatric cancer patients. *Eur J Cancer*. 2001;37:2056–63.

13. Han HS, Rybicki LA, Thiel K, Kalaycio ME, Sobecks R, Advani A, et al. White blood cell count nadir following remission induction chemotherapy is predictive of outcome in older adults with acute myeloid leukemia. *Leuk Lymph.* 2007;48:1561–8.
14. Wiseman M. The treatment of oral problems in the palliative patient. *J Can Dent Assoc.* 2006;72:453–8.
15. Lalla RV, Sonis ST, Peterson DE. Management of oral mucositis in patients who have cancer. *Dent Clin North Am.* 2008;52:61–77.
16. Aldred MJ, Addy M, Bagg J, Finlay I. Oral health in terminally ill: A cross-sectional pilot survey. *Spec Care Dentist.* 1991;11:59–62.
17. Jobbins J, Bagg J, Finlay IG, Addy M, Newcombe RG. Oral and dental disease in terminally ill cancer patients. *Br Med J.* 1992;304:1612.
18. Ant D. *An investigation into relationship between salivary gland hypofunction and oral health problems in patients with advanced cancer.* Kings College, London: Dissertation; 2004.
19. Gordon SR, Berkey DB, Call RL. Dental need among hospice patients in Colorado: A pilot study. *Gerodontology.* 1985;1:125–29.
20. Khubchandani, M.M., Thosar, N., Paul, P., Dangore, S., Mohod, S., 2021. Assessment of Knowledge, Attitude and Practice Behaviors of Parents towards Care of Primary Dentition - A Cross Sectional Study. *JOURNAL OF PHARMACEUTICAL RESEARCH INTERNATIONAL* 33, 363–369.
21. Patel, A., Patel, S., Fulzele, P., Mohod, S., Chhabra, K., 2020. Quarantine an effective mode for control of the spread of COVID19? A review. *JOURNAL OF FAMILY MEDICINE AND PRIMARY CARE* 9, 3867–3871.
22. Jankar, J.S., Harley, K.N., Mohod, K.M., Babar, V.Y., 2020. Association of Urinary Albumin with HbA1c Levels in Subjects of Type 2 Diabetes Mellitus in Central India. *JOURNAL OF EVOLUTION OF MEDICAL AND DENTAL SCIENCES-JEMDS* 9, 3921–3925.
23. Patel, S.A., Patel, A.S., Fulzele, P.R., Mohod, S.C., Chandak, M., Patel, S.S., 2020. Evaluation of the role of propolis and a new herbal ointment in promoting healing of traumatic oral ulcers: An animal experimental study. *CONTEMPORARY CLINICAL DENTISTRY* 11, 121–125.

24. Mohod, Swapnil. "Role of Oral Physician in Oral Cancer Palliative Care." *JDMIMSU*, vol. 11, no. 4, 2016, pp. 400–403.

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