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The Role of Dentists in Palliative Care

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Abstract : *The dentist's play an important role in palliative care by improving the quality of life of the patient. Palliative care has gained importance in the recent years. A trained dentist will be a good team mate for the oncologist, radiotherapist and other doctors of the palliative care team. Palliative care is an approach that improves the quality of life of patients and their families through the prevention and relief of suffering by early identification and impeccable assessment and treatment of pain and other physical, psychosocial and spiritual problems. Dentist may the first to come across the solid tumors of head and neck region, oral manifestations of hematological malignancies, temporomandibular disorders and other oral diseases. So dentist is a very important part of palliative care and palliative care team. Dentists can play an important role in alleviating both the physical and psychological pain of terminally ill patients. This article emphasis the role of dentists in palliative care*

Keywords: *Dentistry; Oral Cavity; Hospice*

I. Introduction

According to National Cancer Institute (NCI) definition Palliative care is care given to improve the quality of life of patients who have a serious or life-threatening disease. The goal of palliative care is to prevent or treat as early as possible the symptoms of a disease, side effects caused by treatment of a disease, and psychological, social, and spiritual problems related to a disease or its treatment. Also called comfort care, supportive care, and symptom management. The dentist may detect the various malignancies of oral and maxillofacial, head and neck region initially. The dentist plays a very important role in palliative care which is an integrated approach to specialized medical care for people with serious illnesses. Palliative care is provided by a team of physicians, nurses, and other health professionals who along with the primary care physician and referred specialists to impart and provide an extra layer of support. A trained dentist plays an important and responsible role to mitigate the physical and psychological hassle of patients with incurable diseases. An overview of neoteric scenario of palliative care and the role of dentists in palliative care is reviewed.

II. Discussion

A World Health Organization statement describes palliative care as "an approach that improves the quality of life of patients and their families facing the problems associated with life-threatening illness, through the prevention and relief of suffering by means of early identification and impeccable assessment and treatment of pain and other problems, physical, psychosocial and spiritual."[1] More generally, however, the term "palliative care" may refer to any care that alleviates symptoms, whether or not there is hope of a cure by other means.

Dental expression in palliative care may be defined as the extended dental services with a central goal of providing preeminent feasible oral care to terminally ill or far advanced diseased patients, where oral lesions or conditions greatly impact on the quality of remaining life of patients, the initiation and progression of oral lesions may be related to direct or indirect succession of disease, its treatment or both[2].

Palliative care began in the hospice movement and is now widely used outside traditional hospice care. Hospices were originally places of rest for travelers in the 4thcentury. In the 19th century a religious order established hospices for the dyingin Ireland and London[3]. The concept of palliative care has garnered much attention since the term was first used in the late 1960s [4].The term "palliative care" was used by Balfour Mount, a Canada-trained physician who served as a visiting professor at the first hospice, St. Christopher's Hospice, which was founded by Dame Cicely Saunders in London in 1967. Dr. Mount subsequently established a palliative care program at Royal Victoria Hospital in Montreal, the first such program to be integrated in an academic teaching hospital [4]. Since that time, many attempts have been made to craft a definition of palliative care that represents its unique focus and goals[5].

An important distinction of palliative care is the focus on dimensions other than the physical. Symptoms are accompanied by the patient's thoughts and feelings, and as such, non- pharmacologic strategies are used to address the sensory, cognitive, affective, and functional components[6]. Although data are limited on some non-pharmacologic interventions, many patients have benefited from these approaches. As research expands in the field of palliative care, other innovative strategies are becoming scientifically validated. For example, a meta-analysis demonstrated that music therapy had a positive effect on many symptoms, including pain, physical comfort, fatigue, anxiety, mood, spirituality, and quality of life[7].

The palliative care team consists of specialists in various fields of medicine including dentists who alleviate the patients discomfort and help him lead a better life. A trained dentist will be a good team mate for the oncologist or radiotherapist or other doctors of the palliative care team[8].

Palliative patients require special dental attention. This extends from operative and preventive care to concept of total patient care involving physical and emotional aspect of wellbeing .The dentist's role in the palliative care is to improve the quality of life of the patients[9].

Oral problems in palliative patients may be related to, (a) direct effect of the primary disease, (b) indirect effect of the primary disease, (c) treatment of the primary disease, (d) direct/indirect effect of a coexisting disease, (e) treatment of coexisting disease, (f) combination of the above factors[10]. The assessment of oral problem is essentially similar to assessment of other medical problems. It involves taking a history, performing an examination, and the use of appropriate investigations, the oral examination involves general observation, intra-oral and extra-oral examination, examination[11].

The palliative care dentist must assess these difficulties, and should focus on the elimination of these problems, appropriate actions must be instituted to at least alleviate symptoms, minimize pain and suffering and provide symptom control. Dental professional are the important members of extended palliative team[12] and they have number of key roles, including (a) training of palliative care professionals, (b) management of complex oral problems, and (c) management of specific oral problems.

According to Rangil *et al*[13] Osteoradionecrosis of the maxillae is the most serious and important complication of radiotherapy administered in patients for head and neck tumors. Almaveri *et al*[14] observed in their studies that diabetes which is one of the reasons for palliative care is associated with oral lesions and poor dentition status. In the review article radiation induced mucositis Satheesh Kumar *et al*[15] described the mucositis and palliation of dry mouth.

Although sufficient literature search has been done no significant study about the oral health burden in palliative care patients has been reported. Patient studies and awareness will help in recognizing the problems and understanding their importance.

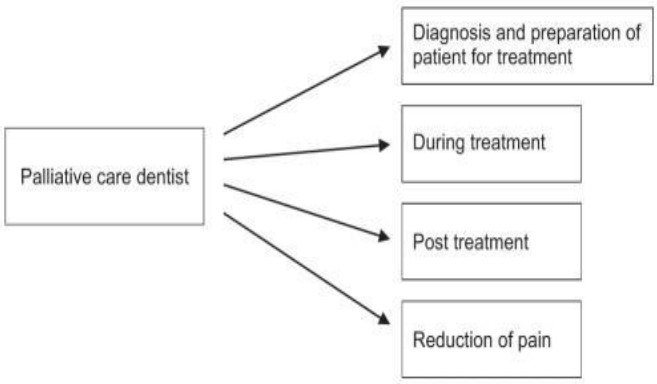

Figure 1: Different levels at which a dentist can intervene in palliative care[8]

Routine mouth care should be undertaken in patients who are unable to care for themselves every 2 to 4 hours, especially in comatose and mouth breathing patient's. The dentist plays an important role in educating the caretakers to execute these oral hygiene procedures.

In the case of patients undergoing treatment for various malignancies the dentist has to foresee, prevent and treat both the short and long term complications.

Short term complications:

1. Mucositis.
2. Ulcers.
3. Xerostomia.
4. Oral candidiasis.
5. Denture stomatitis

6. Taste disorders.

Long term complications:

1. Caries risk
2. Reduced healing capacity (osteoradionecrosis)
3. Salivary gland dysfunction
4. Trismus

Elimination of dental diseases is of utmost importance. Quashing of potential sources of infection from the oral cavity is a key strategy to prevent new infections or exacerbation of existing chronic infections. The following aspects should be looked into:

- In general, all carious teeth should be restored and a scaling and prophylaxis should be performed;
- Extractions should be performed as soon as possible to allow for maximal healing time.
- Only the most superficial occlusal caries may be deferred, and only if there is no alternative.
- Periodontal probing depths and assessment of tooth mobility should be performed, bearing in mind that the patient may be neutropenic or thrombocytopenic.
- Bacteremia from dental probing has been estimated to occur in 10% to 40% of patients.
- The potential for bleeding complications with markedly low platelet count (eg, < 20,000 cells/mL) may limit periodontal probing in some patients.
- The teeth should be examined for Caries, failing restorations, and loss of vitality.
- Teeth with large restorations and crowns may be asymptomatic and yet have necrotic pulps and the potential to develop an abscess during or following cancer therapy.
- The retention, stability, and tissue health under removable appliances should also be evaluated Patients should be told that they may have to discontinue wearing full and partial dentures to avoid soft tissue trauma during cancer therapy.
- Removal of sharp edges of teeth or restorations may help to reduce trauma to the mucosa and reduce the severity of mucositis. Ulcers of mucositis may act as a gateway for ingress of oral bacteria in myelosuppressed individuals with the potential for bacteremia and septicemia. Up to one third of *viridans streptococci*–infected patients can develop shock syndrome.

The community is unaware of the role that a nearby dentist can play. Adequate training programs have to be conducted and awareness has to be created. Many organizations like Neighborhood Network in Palliative Care (NNPC) and Pallium India are making contribution in the field of Palliative care. Kerala and Calicut model are examples for the provision of Palliative care. Increased awareness by all health care professionals of palliative oral care would go a long way in providing relief, comfort, and consolation to terminally ill patients and their families.

Several studies have been conducted on international level to assess the oral problems in palliative and hospice patients for example Gordon *et al* [16], Aldred *et al*[17], Jobbins *et al*[18]. The common problems noticed in these patients were dry mouth, taste alteration, difficulties in swallowing, speaking etc. Studies by Sonis[19], Kostler *et al*[20], Bellm *et al*[21], have covered various aspects of oral mucositis and they states the relationship of oral mucositis to head and neck cancers and its treatment.

According to Wiseman[22], mucositis, stomatitis, candidiasis, xerostomia, taste disorders, nutritional deficiencies continue to be some of the most common problems suffered by palliative care patients. According to Saini *et al*[3] the causes of oral lesions may be fungal, viral, bacterial, ulcerative, immune suppression, radiation, lack of oral hygiene, and so on. Porter *et al*[23]states that radiotherapy and chemotherapy for head and neck tumors are one of the most common causes for long standing xerostomia. Sykes *et al*[24] observe dysphagia to be a not so infrequent problem associated with dying patients. Studies on terminally ill patients with dysphagia further helped them to verify their observation. Morrison & Meier[25] states that dry mouth or inadequate chewing in edentulous patients can also cause dysphagia when no obstruction or neuro deficit exits, they also address pain to be the most distressing and feared symptom near the end of life. It can be anticipated that a diligent search will often reveal a need for more meticulous mouth care. Wherein lies the important role a dentist can play in palliative care.

III. Conclusion

Though there is availability of literature regarding palliative care, the oral health problems remain a less discussed field. The importance of dental care is often ignored due to the non-inclusion of the dentist as a member of the palliative care team. The palliative care dentist must assess and should focus on the elimination of the problems, appropriate actions must be instituted to at least placate symptoms, minimize pain and suffering and provide symptom control to improve the quality life of terminally ill patients. "An ounce of prevention is worth a pound of cure". The dentists have responsibilities in the prevention and early detection of oral diseases.

Establishing protocols, emphasizing the compendious examination is pre-eminent to the oral and overall health of patients. A dentist needs to be a very important part of palliative care team.

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