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Review Article

**Role of oral medicine specialist in palliative care**Swati Dahiya<sup>1</sup>, Taranpreet Kaur<sup>\*1</sup> and Ankit Srivastava<sup>2</sup><sup>1</sup>Post Graduate, (Oral Medicine & Radiology), From Govt. Dental College & Research Institute, [Affiliated to Rajiv Gandhi University of Health Sciences (RGUHS)], Bangalore - 560002, India<sup>2</sup>Senior lecturer, Department of Oral Medicine & Radiology, Malla Reddy Dental College for women, Hyderabad, Telangana, India

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Bangalore - 560002**\*Article History:****Received:** 25/09/2017**Revised:** 28/09/2017**Accepted:** 28/09/2017**DOI:** <https://doi.org/10.7439/ijbar.v8i9.4420>**Summary**

Oral cancer, the sixth most common malignancy, is a major cause of cancer morbidity and mortality worldwide. The leading etiological factor behind this is consumption of tobacco by Indian population. Palliative care is an imperative need worldwide for people with cancer. It is a multidisciplinary approach consisting of specialists in various fields of medicine; but the role of oral physician in palliative team is oblivious. Oral care is considered one of the most basic of nursing activities but it may be compromised in cancer patients either as a result of the disease itself or due to the various therapeutic modalities. The course of palliative care should be broadened by providing education to clinicians, patients, and families with regard to the elements and appropriateness of palliative care.

**Keywords:** Oral medicine, Oral cancer, Palliation.**1. Introduction**

Oral cancer, the sixth most common malignancy, is a major cause of cancer morbidity and mortality worldwide.[1] India is said to have the major number of oral cancer patients; as they comprise 32-40% of the total malignancy in India. The leading etiological factor behind this is the cultivation and consumption of tobacco on a large scale by the Indian population.[2]

Palliative care is an imperative need worldwide for people with cancer. But it plays a critical role in developing countries like India, where patients are diagnosed in their advanced stages and have limited access to prevention and treatment services.[3] Palliative care has been defined by WHO 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, impeccable assessment and treatment of pain and other problems, physical, psychological and

spiritual.[4] Palliative care is a multidisciplinary approach consisting of specialists in various fields of medicine; but the role of oral physician in palliative team is oblivious as it consists of ongoing involvement from diagnosis of the disease through survivorship. Oral medicine specialist may be the first person to diagnose the case of oral cancer and an early and definitive intervention by an oral physician may improve both prognosis and quality of life for the patient.

Oral care is considered one of the most basic of nursing activities but it may be compromised in cancer patients either as a result of the disease itself or due to the various therapeutic modalities. Cancer patients often have suboptimal oral health and are at increased risk for odontogenic infections during cytotoxic and radiation therapy. The common oral problems encountered in palliative patients include mucositis, stomatitis, xerostomia, candidiasis, dental caries, periodontal diseases, taste disorders, difficulty in swallowing and speaking.[5]

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Prevention of these oral complications, early recognition, diagnosis, and management often bridge expertise in both medical and dental care. With timely and effective care of acute oral complications, completion of planned cancer treatment protocols can be supported for best outcomes, including improved survival rates and better quality of life for the patients.[5]

## 2. Terminal illness and Palliative care

Terminal illness refers to active and progressive disease for which curative treatment is neither possible nor appropriate and from which death is certain.[6] Apart from cancer, palliative care plays an important role in the management of advanced stage HIV patients, those with cardiovascular, cerebrovascular or end stage liver or renal disease, patients with diseases of respiratory system and patients with motor neurone diseases like multiple sclerosis/dementia.[7]

The prevalence of symptoms and psychosocial problems in people with HIV may be as high as or higher than among cancer patients.[6] Most HIV infected patients reach a state of their disease when the immunosuppression increases and they develop non-specific problems such as weight-loss, diarrhoea and fever. It is important to pay attention to physical, emotional, social and essential needs of such patients.

## 3. Palliative care: An alternative to Euthanasia

Euthanasia has become an option for terminally ill persons, in order to die with dignity. Palliative care, on the other hand, seeks to re-assure people with terminal or chronic ailments that they are still worthy of living.[8] Palliative care should be the focus of all government across the globe so that, terminally and chronically ill persons can be adequately catered for as they approach their end of life. What the terminally ill want and need is pain relief, not an end life.

## 4. Management of pain in cancer

The distressing pain in patients with cancer can be either due to the disease itself or as a consequence of the treatment. Palliative care to such patients should aim at relieving this symptom at both the levels. The physician should assess the intensity and characteristics of the pain, the patient's emotional response and the effect of pain on the patient's ability to function.

Usually, the pain responds to pharmacological management using orally administered analgesics and adjuvants. However, current treatment is based on the WHO's concept of an 'analgesic ladder' which involves a stepwise approach to the use of analgesic drugs and is essentially a framework of principles rather than a rigid protocol. This allows considerable flexibility in the choice of specific drugs and is regarded as a comprehensive strategy for managing cancer pain.[9]

WHO method involves the efficient use of oral opioids for moderate to severe pain. Morphine is the standard 'step 3' opioid analgesic against which others are measured. It is widely available in a variety of oral formulations and doses may vary 1000 fold or more to achieve the end point of pain relief.[9] Also, the use of topical analgesics to reduce somatic pain, or topical anaesthetics to numb the painful tissues is recommended.

However, use of morphine may induce CNS adverse effects which may range from sedation, drowsiness and sleep disturbance to cognitive and psychomotor impairment. Reduction in the dose of morphine, possibly by addition of a co analgesic should be tried, but if side effects persist, the clinician should consider options of symptomatic management of the adverse effect, opioid rotation, or switching route of systemic administration.

## 5. Oral considerations in palliative patients

### 5.1 Osteoradionecrosis of jaws

Post radiation osteonecrosis is a well-known complication of head and neck radiotherapy. It results in endarteritis that affects vascularity, resulting in hypovascular, hypocellular and hypoxic tissues that are unable to repair and remodel. Avoidance of trauma, removal of bony sequestrum and combined pharmacological therapy should be advised. In cases associated with pain and progression, hyperbaric oxygen therapy should be indicated.[10]

### 5.2 Mucositis and stomatitis

Mucositis and stomatitis are common in patients who receive chemo- radiotherapy. Chemo and radiotherapy act on tissues with high mitotic rate, like the oral mucosa leading to reduction in mitosis. This causes atrophy of tissues which may further lead to ulceration and microbial invasion. Treatment for mucositis and stomatitis is primarily aimed at relieving pain. Specialists trained in oral medicine can provide palliative treatment by prescribing topical anaesthetics, various coating agents and diluting agents. It is also important to identify local traumatic factors such as fractured restorations or teeth, or an impinging removable prosthesis. Oral cavity should be thoroughly cleaned by flushing with povidine iodine preparations to reduce the bacterial colonization. Patients should also be advised to avoid hot and spicy foods, and habits like smoking and alcohol.[10]

### 5.3 Xerostomia

Xerostomia is common in palliative patients mostly as a result of radiotherapy and medication. It is practically difficult to assess the severity of xerostomia as it may sometimes be totally subjective to impart a serious negative effect on patient's quality of life affecting dietary habits and nutritional status. Oral physicians can play an important role by incorporating various preventive measures

in the form of meticulous oral hygiene, supplemental fluoride and remineralizing solutions. Nevertheless symptomatic therapy like water intake, salivary stimulants, artificial salivary substitutes, and systemic secretagogues may assist in stimulation of residual gland function.[11]

#### 5.4 Medication and oral side effects

Older adults are likely to take medications that can impact oral health and affect dental treatment. These medications, which include, antihistamines, diuretics, analgesics, anti-hypertensives and antidepressants, can cause side effects such as dry mouth, soft tissue changes, taste changes, and gingival overgrowth. Since these drugs are prescribed to adults very often, the oral physician should efficiently manage the adverse effects associated with their use.[12]

#### 5.5 Candidiasis

The incidence of candidiasis in palliative care patients has been estimated to be 70-85% and *Candida albicans* is the most common infectious organism encountered. Predisposing factors include poor oral hygiene and nutrition, smoking, denture wearers, immunosuppression, use of broad spectrum antibiotics and corticosteroids. Higher salivary candida levels are more frequently encountered in denture wearers than in dentate patients and can be managed by instructing the patients to rinse the dentures with water, cleansing with a soft tooth brush and regular soaking of dentures in a weak non-toxic solution. Dentures should be stored in vessels in solution of water, mouth wash 0.12% chlorhexidine or 100,000 IU of nystatin suspension.[11]

#### 5.6 Effects on nutrition

Nutrition is the most important aspect of health and well-being. It is required for physical and alert active mental status. However, it is most commonly compromised in people suffering from end stage disease and in patients undergoing treatment for the same. Compromised nutritional status can lead to various systemic disorders, which may affect general health and may prove to be fatal. Palliative care patients are unable to consume food or fluids if their oral cavity is compromised. Moreover, vomiting, diarrhoea, fever, swallowing difficulties and anorexia may cause dehydration, which in turn can lead to xerostomia. The role of oral medicine specialist is to assess nutritional status, oral implications, and causes of complaints, provide guidelines and refer to appropriate provider.[11]

#### 5.7 Disorders of taste

Chemo- radiotherapy may cause dysgeusia in palliative care patients. Also, diminished taste and smell may be due to nervous system disorders, chronic renal and liver diseases, endocrine disorders, medication and multitude of disorders affecting nasal and oropharyngeal region.[11] This can be corrected by zinc supplementation

and by suggesting the patients to take foods with gravy, as this aids in swallowing and may also improve patient's appetite.

#### 5.8 Caries and periodontal disease

Patients with terminal end stage are usually prone to caries and periodontitis, with most common reasons being radiation therapy, which causes changes in salivary flow, decreased pH, reduced buffering capacity, increased viscosity, reduced cleansing action and debris accumulation. This can be managed by combination of restorative dental procedures, proper oral hygiene and topical fluoride application. Grossly decayed and severely periodontally compromised teeth should be extracted and rehabilitation of missing teeth should be done to improve masticatory efficiency.[11]

#### 5.9 Difficulty in swallowing

Palliative patients may experience difficulties in speaking, swallowing and may complain of esthetic loss due to disfigurement. These patients should be taught exercises to improve mouth opening. Rehabilitation of the defects with prosthetic appliances should be encouraged, as this may result in resolution of speech defects and improvement in esthetics.

#### 5.10 Depression

Depression is not uncommon in the terminally ill patients. A significant percentage of people experience severe depression during and after the treatment and have symptoms suggestive of psychosocial distress even before beginning treatment. The oral medicine specialist must take time to listen to his or her patient and should demonstrate empathy by eye contact and gentle touching of the patient's hand or shoulder. It is also important to acknowledge family and significant others who accompany the patients. Many patients suffering from depression are prescribed antidepressants, most of which cause xerostomia. Specialists trained in oral medicine should guide the physician in choosing a saliva-sparing antidepressant.[13]

#### 5.11 Maintenance of oral hygiene

Maintenance of oral hygiene is an important part of palliative care. Patients should be encouraged to brush twice daily using a soft toothbrush, and 0.2% chlorhexidine or betadine mouth rinse twice daily can be given to maintain adequate oral hygiene.[14]

### 6. Fatigue and Palliative care

Fatigue is one of the most frequent symptoms in palliative care patients, impairing quality of life considerably. It has been reported not only by a majority of patients with advanced cancer, but also patients with cardiac failure, HIV/AIDS, end stage renal or liver disease report this symptom. It has also been reported in approximately 99% of patients following radio- chemotherapy. Oral physicians can play a role in subjective assessment of the

fatigue. Patients with secondary fatigue (due to anaemia, depression etc) should be referred to the specialists for management. However, symptomatic treatment of fatigue in palliative care patients can be done using various pharmacological (methylphenidate, modafinil) and non-pharmacological (massage, aromatherapy, psychotherapy, relaxation therapy) approach. It is likely that some adaptation to these treatment options might provide relief of fatigue in palliative care patients.[15]

## 7. Awareness of palliative medicine in India

The message of palliative care has become a movement in several parts of India in a short span of time. The past two decades have seen palpable changes in the mind set of healthcare providers, and policy makers with respect to the urgency of providing palliative care.[16]

A study was conducted by Saini et al in 2011 in Rural Dental College, Maharashtra, to determine the knowledge and awareness of palliative medicine among dental undergraduates. 95% of the students believe that oral symptoms are common in palliative patients and 88% of them confirmed that oral physicians are an integral part of palliative team. The study concluded that the students have a relatively good level of knowledge about palliative medicine and the overall awareness of students is high as per knowledge regarding dental expression and its role in palliative treatment.[17]

## 8. Conclusion

In India, palliative care organisations like NNPC and Pallium India are serving the community. But, the current training in palliative care seems inadequate in terms of providing comprehensive care. Caregivers are often ill-prepared for confronting the experience of death, and providing supportive care and attention to a patient with advanced disease. To overcome this hurdle in future, an appropriate patient follow-up and care delivery system must be carefully and logically structured by providing in-house pain clinics and establishing hospices in close proximity to the comprehensive cancer care centres, with dedicated beds and logistic support, which can improve the compliance of patients. The course of palliative care should be broadened by providing education to clinicians, patients, and families with regard to the elements and appropriateness of palliative care.

Oral medicine specialist plays a vital role in palliative care team. Oral physicians are better equipped to interact with patients at their terminal stage of life and can contribute with utmost care and empathy. Increased awareness by all health care professionals and of palliative oral care would go a long way in providing relief, comfort and consolation to terminally ill patients and their families.

While suffering certainly exists, so too does substantial hope for healing and well-being. That is what palliative care is all about.

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