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## Palliative oral care: A life prolonging therapy

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### ABSTRACT

Palliative care is a multidisciplinary approach that improves the quality of life in terminally ill patients and their families. Squamous cell carcinoma of the head and neck is one of the most common cancers seen in developing countries including India, constituting up to 25% of the overall cancer burden. There is an ever growing number of cancer patients around the globe and so is the mortality rate associated with it. These patients are not only compromised on general health but also on oral health, alleviation of pain, reducing the suffering, providing relief, treatment of any other complications which occur during the treatment or post treatment of the cancer patients are taken care in palliative care. The role of an oral physician is formidable in carrying out the duties and serving a 'Healing hand' in Palliative oral care.

**Keywords:** oral cancer, oral squamous cell carcinoma, oral physician, palliative care

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### History

Palliative care is the specialized medical care, holistic multidisciplinary approach for people with terminal illness. According to WHO, Palliative care is, "The study and management of patients with active, progressive, far advanced disease in whom the oral cavity has been compromised either by disease directly or by its treatment, the focus of care is quality of life". [1] The term palliative care is not only used in regards to cancer but also with any other chronic terminally ill diseases like pulmonary disorders, renal diseases and chronic heart failure. Palliative care is provided by a team of health care professionals who provide an extra layer of support to the patients. [2] An oral physician plays a significant role in rendering these services to the patients especially with oral cancer patients.

### Oral cancer and palliative care

Oral cancer has an annual incidence of 275,000 for oral and 130,000 for pharyngeal cancers [3]. Although the

oral cavity is easily accessible for direct visual examination, cases of oral squamous cell carcinoma (OSCC) are not diagnosed until an advanced stage, causing a very minimal survival rate. Despite modern treatment advances available, approximately 50% of all cancer patients die from the disease, thus the central focus has shifted from cure or life prolongation to palliation [4].

### Pre treatment protocol in palliative care

Oral health care professionals may come across several problems affecting the oral cavity either during the treatment or after the treatment given to cancer patients. Managing the oral cavity even before the cancer therapeutic therapy poses many challenges to oral physicians. Thus a comprehensive oral evaluation should be advised at least one month before the treatment to allow an adequate recovery time [5]. Oro-dental treatments must be completed before beginning either radio or chemotherapy so as to minimize any oral changes and possible adverse reactions. Periodontal prophylactic therapy is done to reduce the bacterial load. A ten minute application of 1.1% neutral pH or 0.4% stannous fluoride gel is advised to prevent radiation caries. All interventions should be completed fourteen days before radiation therapy so as to provide appropriate healing time for the

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oral tissues [6]. The pre assessment treatment protocol for treating oral cancer patients is as following:

- Oncologic consultation is indicated prior to any invasive procedures.
- Use of an aqueous alcohol free chlorhexidine mouthwash (10ml of 0.2% aqueous alcohol free chlorhexidine gluconate mouthwash or 18ml of 0.12% aqueous chlorhexidine gluconate solution twice daily for at least one week prior to commencing treatment) with thorough oral hygiene practices showed evidence that it reduces the incidence of oral complications [7].
- Teeth with doubtful prognosis, with direct association with the tumor or the radiation beam should be extracted before radiotherapy.
- Extractions have to be done with minimal trauma and ideally three weeks for maximal healing to be given before the treatment [8, 9].
- Oral surgical procedures should be performed at least seven to ten days before the patient receives myelosuppressive chemotherapy.
- This protocol has to be followed in order to minimize any potential risks during the treatment, post treatment and to establish an adequate standard of oral hygiene [7].

#### Oral care protocol in palliative care

This protocol has to be followed at least every four hours for the palliating patients.

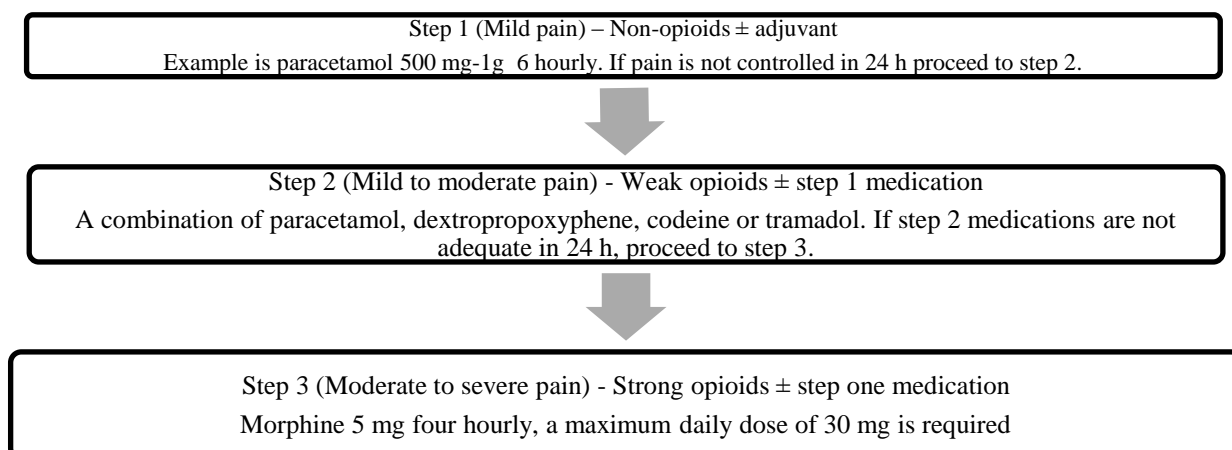
1. Dentures if present must be removed and brushed thoroughly with a denture brush.
  - If patient has candidiasis, dentures should be soaked each night in Nystatin suspension.
  - Water soluble jelly is applied to lips as they are often dry.

2. A soft bristled toothbrush has to be used for brushing in a sweeping motion towards the occlusal surfaces.

- If bleeding occurs during brushing, then bristles must be soaked in hot water first and then be used.
  - An extra soft bristled toothbrush can also be used.
3. Rinsing of the mouth to be done, with any alcohol free product.
    - A mixture of hydrogen peroxide and saline (1:1) or chlorhexidine mouthwash.
    - Half a tablespoon of salt and baking soda and eight ounces of water or club soda can be used as a mouth rinse.
    - Saline or tap water can be used as a final rinse [10].

#### Control of pain in palliative care

Pain is the most “An unpleasant sensory and emotional experience associated with actual or potential tissue damage, or described in terms of such damage.” as given by the International association for the study of pain (IASP) [11]. In patients receiving radiation and intense chemotherapy therapy, oropharyngeal pain is not an uncommon problem. Oral mucosal pain is also an important and a frequent complaint reported by head & neck cancer patients. Thus alleviating the pain and suffering for the patients is of the greatest help which can be rendered by an oral physician. To manage mucosal pain, topical Doxepin rinse, 0.5% can be advised which has an analgesic effect and thus reduces the pain due to cancer or cancer therapy. Doxepin is a dibenzexipin tricyclic compound. The mechanism of action is both central and peripheral. It is also used in the management of depression and chronic pain [12]. About 90% of the physical pain can be controlled by the application of WHO analgesic ladder [13] as shown in Figure 1



**Fig 1: WHO analgesic ladder for treating cancer pain.**

**Cachexia and palliative care**

Cancer cachexia is a multifactorial syndrome characterized by progressive weight loss, and persistent erosion of host body cell mass in response to a malignant growth leading to death. Anorexia, the loss of desire to eat or loss of appetite, is an important component causing weight loss in cancer cachexia. It adversely affects the patients' ability to fight against infection and withstand treatment by chemotherapy and radiotherapy [14]

**Social well being in palliative care**

Families of patients receiving palliative care are also affected immensely by the challenges of the illnesses. They are referred to as 'Hidden patients'. They play an important role both as a care giver and care recipient. Palliative care has tended to focus not only on the needs of cancer patients but also on their families. Health care professionals must view the family as a unit of care and must support them with necessary assistance [15].

**Psychotherapy in palliative care**

During the palliative phase, patients should be rendered psychological support. Psychological interventions for managing persistent cancer pain have been advocated as adjuncts to pharmacological techniques but little work has been done to evaluate these interventions. Cognitive behavior training, relaxation, hypnosis and therapist support, positive affirmations are a few psychotherapeutic techniques. Hypnosis reduces the oral pain experienced by patients due to mucositis [16].

**Palliative oral care & role of an oral physician**

Oral complications severely impact the quality of life and the general well being. An early definitive clinical diagnosis is required to minimize the pain and suffering for the patients and to manage oral conditions like xerostomia, mucositis, radiation caries, taste disorders and candidiasis caused due to the treatment and post treatment. Oral physician is the only one who has profound knowledge about these manifestations, complications and to manage them proficiently. Table 1 shows therapeutic agents available in India for the treatment of oral manifestations seen during the treatment and post treatment phases.

**Table 1: shows therapeutic modes available in India for the treatment of oral manifestations seen during the treatment and post treatment phases**

ORAL MUCOSAL CONDITION	THERAPEUTIC MODES
<b>ORAL MUCOSITIS</b>	<ol style="list-style-type: none"> <li>1. Allopurinol mouthwash QID as a prophylactic measure.</li> <li>2. Magic mouthwash(diphenhydramine (12.5 mg per 5 ml), and lidocaine 2% viscous solution mixed in equal proportions (1:1) 5ml swish and spit QID.</li> <li>3. Tab Morphine- 2.5-5mg QID for 5 to 7 days.</li> <li>4. Coolora mouthwash (Benzylamine hydrochloride 0.15% -QID swish and spit.</li> <li>5. Cryotherapy(application of ice 5 minutes before the treatment and 30 minutes after treatment reduces the complications.</li> </ol>
<b>CANDIDIASIS</b>	<ol style="list-style-type: none"> <li>1. Clotrimazole 0.1% (Candid mouth paint) application BID/TID for 5 days.</li> <li>2. Nystatin (Nistin-C) 5 lac unit –powdered and mixed with glycerin suspension - 1ml to swish and swallow QID for 7-10 days.</li> <li>3.Tab Fluconazole-50- 100mg/day for 7-10 days TID</li> </ol>
<b>XEROSTOMIA</b>	<ol style="list-style-type: none"> <li>1. Hydration includes, frequent water intake.</li> <li>2. Salivary substitutes (E saliva spray) TID/QID.</li> <li>3. Wet mouth – half or full Capsule swish for 30seconds.</li> <li>4. Duestom salivary substitute gel (Glycerine 18%) QID before/after the meals.</li> <li>5.Sialogogues; Tab Pilocarpine (Salagen) 5-7.5 mg – TID can be titrated to 10mg</li> </ol>
<b>RADIATION CARIES</b>	<ol style="list-style-type: none"> <li>1.Oral hygiene procedures</li> <li>2. Daily topical application of 1%NaF gel or 0.4% SnF for 5 minutes, later stages, 15 min- TID.</li> </ol>
<b>DYSGUESIA</b>	<ol style="list-style-type: none"> <li>1.Tab Zinc Sulfate (Zincovate tab) 15-30mg/day BID for 3 months</li> <li>2. Use of Mono sodium glutamate in food.</li> <li>3. Dietary alterations, more of fruits, less salt and sugars.</li> </ol>

### Current scenario of palliative care in India

Although Palliative care has emerged into a new specialty much awareness is not yet created among the Indian population. Government of Kerala has declared palliative care as a part of primary health care. It has developed into an integrated health service unit with community participation making Kerala become the first state in India to announce a palliative care policy. Many more states in India have to start adopting palliative care policy and the services must be made easily and readily available for them as these patients prefer being at home in the last phase of life.

### Conclusion

Palliative care has emerged into a new specialty, with various healthcare professionals involved. It is well understood that it's not complete without the participation of oral physician. Oral physicians are better equipped to interact with patients at their terminal stage of life as they can contribute with utmost care and empathy. They are certainly at a forefront in providing appropriate palliative oral care for cancer patients through operative, preventive and emotional care. Palliative care patients require special dental attention and an oral physician plays a lead role in improving the quality of life.

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