INTRODUCTION

Prevalence of Cancer is increasing rapidly to such an extent that in each family we find at least one near one, a family friend or a colleague diagnosed with it. This is due to changing lifestyle and advance in technology in developed as well as in developing countries. Oral cancer is rapidly becoming global health priority. In India it ranks among top three cancers\(^1\). The prevalence of oral cancer is high among men\(^2\).

Oral cancer is a significant disease affecting public health as it is diagnosed in late stages; as a result, the treatment outcome is poor with respect to considerably costly and unaffordable treatments.

Oral cancer mainly affects those from lower socioeconomical groups due to greater consumption of tobacco as a result of illiteracy. 90% of oral caners are due to tobacco use and alcohol consumption. Several studies now confirm that evidence of smokeless tobacco is a major factor causing oral cancer\(^3\).

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Oral cancer is dangerous as many times it remains unnoticeable by the patient in early stages and frequently progressed without pain or any symptom. The patients, who survive a first encounter with the disease, have up to a 20 times higher risk of developing secondaries. Patient is under risk for 5-10 yrs after first encounter of the disease.

90 % of oral cancers are squamous cell carcinomas. In modern medicines available treatment modalities includes identification of population which is at high risk, education of the patients, timely management of lesions with the help of conventional treatment options.

Radiotherapy is a common treatment option as per Indian Council of Medical Research Guidelines for Management of Buccal Mucosa Cancer irrespective of stage of cancer (whether it is in stage I-IV)\(^4\).

**Efficacy of Radiotherapy in oral cavity cancer**

Role of radiotherapy is evident in oral cavity cancer patients. Small mucosal tumours can be successfully treated only with radiotherapy instead of surgery with similar results and by avoiding surgical hazards and lifelong deformities. Extensive nodal metastatic disease in oral cavity cancers are managed by combined modalities like surgery, radiotherapy and chemotherapy. Thus radiotherapy is integral part of treatment in oral cavity cancers.\(^5\)

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   http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4152629/

Radiotherapy hazards –
Radiotherapy, which is often given as adjuvant therapy following surgery, affects tumour cells as well as healthy cells depending upon field of radiotherapy. Radiotherapy when given in oral cancers induces stomatitis, xerostomia, trismus, loss of taste etc in patients. It directly impacts upon oral health, and swallowing ability. The inability to eat has significant consequences. This has impact on quality of life and performance status. The patients with poor quality of life and performance generally have poor prognosis.

Selection of topic:
Main goal of cancer treatment are to cure the disease, prolong the life of patients and to give best possible quality of life to cancer patients.

Ayurvedic drugs used for centuries in India are known for less toxicity and accepted for chronic diseases. They are also known to improve the generalised weakness and also boost up immunity which is particularly hampered in oral cancer patients. These medicines can help to maintain quality of life in cancer patients. Recently combinations of Ayurvedic drugs are also recommended for cancer as an adjunct therapy as Ayurvedic drugs are commonly used to improve quality of life and to improve immune response. As mentioned above radiotherapy is one of the main stream treatments for oral cancer. Side effects occurring due to radiotherapy often leads to pitta vruddhi, raktadushti and dehoshma vrudhhi (Jwara). In oral cavity cancers, it additionally hampers Jatharagni, produces vrana in oral cavity. Thus in many patientsit causes discontinuation of therapy jeopardising its effects and also in compromising quality of life of cancer patient.


Various Ayurvedic drugs such as Mauktikyukta Praval Panchmrut, Mauktikyukta Kamdudha, Yashtimadhu (*Glycyrrhiza glabra*), Ananta (*Hemidesmus indicus*) have properties as chardighna (antiemetic), pittashamak (antacids), raktashodhak (Improving quality of blood), jwarahara (anti pyretic) and vranropak (Antiulcer). It is with this consideration in mind, I have selected various preperations of above mentioned medicines to minimize side-effects of radiotherapy in oral cavity cancer patients. In our centre, we are using combination of these medicines in oral cavity cancer patients undergoing radiotherapy and found to be effective in minimizing these side effects and improving QoL. It is with this consideration in mind I have selected the topic.