

Dental Surgeon's Role in Determent and Control of Oral Cancer

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1. Introduction

Oral cancer is a preventable cancer. If detected early and managed properly, it is mostly curable. Excellent pain relief and palliative care can be given to the terminally ill. But the paradox is that even today, thousands in India develop oral cancer and majority of them die miserably of this disease. It is high time for the Dental Profession to review what they can offer for the prevention and control of oral cancer.

Primary prevention of Oral Cancer

There are three strategies for primary prevention¹.

- 1) Avoidance or reduction of risk factors
- 2) Chemoprevention
- 3) Avoidance of genetic risk.

The general dentists have ample opportunities in all these areas. The most important etiological factors for oral cancer are habitual consumption of tobacco, arecanut and alcohol. The strategies for the control of these habit forming substances are

(i). creation of awareness about their hazards, (ii) legislation to restrict the production and sale, (iii) advocacy activities to make their consumption an unaccepted social practice & (iv) establishment of cessation clinics. The General Dental practitioner can act on all areas. On an individual basis when an arecanut/tobacco/alcohol habitué is identified during oral examination, that person should be made aware about the hazards of the addiction and advised to stop tobacco and alcohol consumption. If needed, assistance may be given to quit the habit. The Dentist can function as a resource person in anti-tobacco activities organized by Non-Governmental Organizations and Community Groups like the Residents' Association. Dentists should join hands with Governmental programmes for tobacco control.

Chemoprevention in the process by which cancer is prevented or delayed from developing by the administration of simple substances to high risk groups. Dental surgeons are in very good position to offer chemoprevention advices to high risk groups. Common chemo preventive agents tried with variable success are vitamin A, synthetic retinoids, carotenoids, curcumin, selenium and spirulina.

Early detection of Oral Cancer (Secondary Prevention)²

Majority of oral cancers arise from pre existing precancerous states. So the best strategy of early detection will be detection of oral precancers. It will be considered as negligence by the dentist if a cancer or pre cancer is missed during routine oral examinations and treatment.

Early oral cancer is asymptomatic. A patient with asymptomatic oral cancer should be emphatically told the

fact that one should get state of the art treatment without time loss lest the cancer will become incurable and the treatment cost will escalate heavily. Complications of treatment will be much more in advanced cases. Patients with precancer also should be told about the high probability of such benign lesions becoming malignant and the usefulness of proper habit intervention to prevent cancer. Dental students should be properly trained in the diagnosis, evaluation, treatment and follow up of precancers.

Cases of precancers showing clinical signs of malignant transformation and clinically frank malignancies should be biopsied. Adequate training should be given in taking biopsies and sending the specimen properly to a pathology laboratory. When a case is histopathologically confirmed, that patient should be referred to an appropriate oral cancer treatment centre without losing valuable time.

Dental surgeon is a member of oral cancer management team in all modern cancer centers. Patients considered for radiation should undergo preparative procedures like extraction of badly decayed teeth, endodontic and conservative procedures in carious teeth, improvement of oral hygiene and fluoride application, and prior to radiation. The dentist can make bite blocks, protective shields, and positioning devices to direct the radiation beam. They can also make moulds for positioning radioactive needles and place polythene catheters for after loading brachytherapy. During radiation, patient should be monitored and treated to prevent/reduce complications of radiation. Prosthetic rehabilitation is another area where dentist can improve the quality of life of a surgically managed patient.

Palliative care (Tertiary prevention)³

Among all the specialists in medical profession the dental surgeon is the best option to examine and treat oral cancer patients in terminal stages. With a short training, dentists can give neurolytic blocks, manage dysphagia, dyspnoea, bleeding and treat pain and other distressing symptoms very effectively.

2. Summary⁴

The training of Dental Surgeons should be in the following areas of palliative care.

- 1) Pain management using the WHO step ladder principle
- 2) Giving nerve blocks
- 3) Management of fungating and foul swelling ulcers
- 4) Management of varying grades of xerostomia using home-made synthetic saliva.
- 5) Management of opportunistic infections.
- 6) Nutrition and dietary counseling of compromised patients.

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- 7) Monitoring for radiation caries and osteoradionecrosis and management of these.
- 8) Preparing the patient to face death with courage
- 9) Supporting the family to face bereavement boldly
- 10) Knowledge about alternate systems and other methods of palliative care.

References

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