



Early detection of oral cancer: Central role played by dental surgeons

Shahrukh Ali khan¹, Waseel Ahmed Siddiqui², Mehwash Kashif³, Tayyaba Rasool⁴

^{1,2} Department of Oral Surgery, Karachi Medical and Dental College, Karachi, Pakistan

³ Department of Oral Pathology, Karachi Medical and Dental College, Karachi, Pakistan

⁴ Department of Oral Diagnosis, Karachi Medical and Dental College, Karachi, Pakistan

Abstract

Dental specialists are ordinarily the primary experts who are drawn nearer to treat pathologies inside the oral cavity. Therefore, they should be well-prepared and well-equipped in recognizing suspicious lesions during routine clinical practice. They should have firm knowledge on early signs and risk factors that are associated with oral cancer so they can prevent the lesion on its early stages. Unfortunately due to lack of proper knowledge patient is diagnosed in late stages when the prognosis is poor. In spite of the fact that basic oral cancer examination for provisional diagnosis requires only 90 seconds but very few dentists are investing their energy for the same. In this short communication we would discuss the same.

Keywords: Dental specialists, oral cancer, provisional diagnosis

Introduction

Oral cancer is a major cause of morbidity and mortality worldwide and is significantly more deadly than breast or prostate cancer. It is evaluated that every hour one person dies from the outcomes of oral cancer every day ^[1, 2] Oral SCC is the 6th most common cancer all around and its occurrence is expanding. India, Pakistan, Sri Lanka and Bangladesh have the highest incidence with up to 25% of all new cancers affecting the oral cavity ^[3], compared with 6% in France and 3% in the UK ^[4].

Over 95% of every oral malignancies are oral squamous cell carcinoma followed by adenocarcinoma and small salivary gland tumors 5%, verrucous carcinoma and lymphoma 2% each and the rest among which we can find rare sarcomas and other odontogenic tumors ^[5]. The overall survival rate for those with localized disease at diagnosis stage is 75% but only 16% for patients with late stages because in most of the cases cancer is diagnosed at stage 3 or 4 with lymph node metastasis ^[6, 7].

Tobacco, liquor, and betel quid (BQ) use have been perceived as major risk factors of oral cancer. Cigarette smoking and liquor drinking are the significant risk factors in Western nations, while BQ use and smoking are the major risk factors in Asian nations ^[8-10]. Substantial consumers and smokers have 38 times the risk of abstainers from both products ^[11].

As most of oral malignant cancers are related with the factors related to lifestyle including smoking, betel quid biting and liquor utilization, the essential measure for prevention of oral cancer is through health education that aims to change the way of life that are known to be related with oral cancers. Notably however, the figures concerning the preventive activity and early limitation of oral malignancy have remained disappointingly enduring over the span of the latest couple of decades and studies detailing the achievement of essential counteractive action are constrained, showing the fact that changing behaviour or way of life is a slow

and difficult process that's why secondary oral cancer prevention i.e early detection is particularly fundamental ^[12].

No group of Medical professionals other than Dental surgeons has a better opportunity to have a positive impact on early detection of oral cancer. Since dental specialists have a chance to look at oral and perioral region, they assume an imperative job in early identification of the oral cancer. The job of the dental specialist is not just in the aesthetics (repairing the teeth, executing the prosthetic work, etc.), but that they can likewise manage the matter of life and death ^[13]. Moreover, opportunities exist during a patient's visit to a dental clinic for risk habit intervention services as it is well established that dental patients are traditionally well responsive to preventive well being messages and further, as some risk factors including smoking and betel quid chewing leave oral effects, noticeable proof of the advantages of end can fill in as a solid inspiration for patients to stop ^[14].

Dental examination performed by dentist to look for the signs of oral cancer or precancerous conditions in a group of asymptomatic individuals to detect those with a high probability of having or developing a given disease with the aim of detecting disease at an early stage is termed as screening. Given the accessibility of the oral cavity, conventional oral examination (COE) is the most well-known strategy utilized for oral cancer screening ^[15].

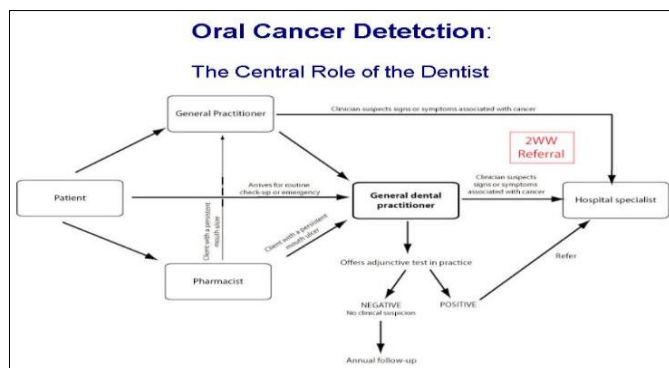
Criteria for inspection of the oral leukoplakia or squamous cell carcinoma includes changes in surface texture, loss of surface integrity, color, size, contour deviations or mobility of intraoral or extra-oral structures ^[16]. Clinicians can expand survival rates if a pre malignant lesion is found and treated before it becomes malignant ^[17]. Table 1 highlights suspicious signs that require immediate referral for further investigation.

Table 1: Red Flags – trigger for referral

Non healing lesion >2 weeks
Ulcer or mass with raised heaped up margins, puckering/tethering of surrounding tissue Pain or numbness/tingling associated with a persistent lesion
Red lesion (erythroplasia) or Red-White lesion (leuko-erythroplakia) Unexplained loose tooth or non-healing extraction socket. Neck mass

The potential advantages of screening which incorporate down-staging, improved survival, consolation (for those screened negative) and lessening cost of treatment are well established [18]. The American Cancer Society suggests screening for tumors of the head and neck, including oral cancer, every 3 years in asymptomatic people between the ages of 20 and 40, and yearly in asymptomatic patients after age 40. Smokers and liquor clients, who are viewed as high hazard, ought to be analyzed each year paying little respect to their age [19].

Although comprehensive oral cancer examination only takes 90 seconds of their time a minimal effort, given the resulting benefits to both the patient and the dentist if cancer is detected early, still very few dentists are spending their time for the same [20]. In 2007 the World Health Assembly passed a resolution on oral health, urging all member states to “take steps to ensure that prevention of oral cancer is an integral part of national cancer control programs, and to involve oral health professionals or primary health care personnel with relevant training in oral health in detection, early diagnosis and treatment [21, 23].

**Fig 1**

Conclusion

Education of the general population with respect to the risk factors which lead to oral cancer, acknowledgement of the early signs and symptoms and patient awareness, are primary duties of the dental community. It is well established that virtually all oral cancer are preceded by visible changes in the oral mucosa and therefore a thorough oral cancer examination and risk habits assessment are among the measures that lead to prevention and early detection of oral cancer. Having appropriate knowledge on risk factors and the ability to recognize oral cancer is a prerequisite for dental professionals.

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Competing interests

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