Oral Cancer Screenings:
When Changing Lives Becomes Saving Lives

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Aesthetic dentistry is typically focused upon function and aesthetics. Clinicians, however, also have a responsibility to the overall health of their patients, more specifically with regard to oral cancer. Oral cancer is a major concern in society today, and dental care providers are situated on the frontlines for early detection and prevention. By promoting preventative measures, awareness, and early detection methods, dental professionals can make a life-saving contribution.

Through experience, dental professionals can simply look at a person's smile to determine how to improve the function and aesthetics of the patient's teeth. By building such enhanced visual acuity, dental care providers provide restorative and aesthetic treatments that can change patients' lives. Why then are 66% of oral cancer patients diagnosed in Stage III or Stage IV of their disease, when early detection methods involve a three-minute primarily visual examination?

In the US alone, the estimated number of people diagnosed with oral cancer each year is 30,000, and the estimated deaths from oral cancer is 8,000. Worldwide, the numbers are much larger, with 350,000 to 400,000 new cases each year. Even more concerning is how the survival rate for oral cancer has not improved for the past 40 years. According to the Oral Cancer Foundation, one person dies from oral cancer every hour of every day. If more cases were diagnosed earlier, many more lives could be saved. Dental professionals, whose livelihoods are based upon their patients' oral health, need to understand the true weight of these statistics and accept their role in the battle against oral cancer.

With every patient, it is proper procedure to conduct an intraoral and extraoral examination before any treatment is administered. Dental and medical histories should also be reviewed. It is in this initial stage that oral

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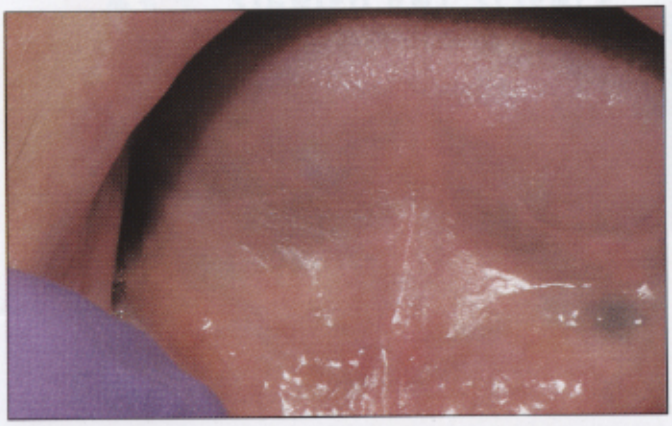

FIGURE 1. Clinical image of the ventral area of the tongue without light stick.

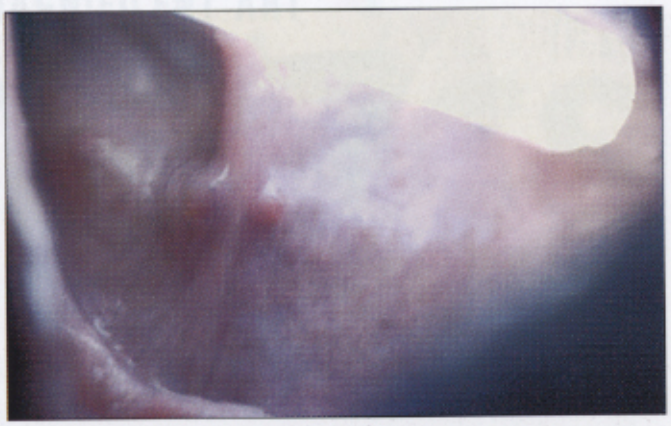

FIGURE 2. Clinical image of patient using light stick. After scalpel biopsy, the "white" area was found to be epithelial dysplasia.

FIGURE 3. Carcinoma *in situ*, ventral anterior tongue.

cancer may be detected. All patients 18 years of age and over should be screened for oral cancer. Approximately 25% of oral cancer victims have no lifestyle risk factors; although some patients may have no risk factors in their history, they should still be screened. Those categorized as high-risk patients are over the age of 40 with a history of tobacco use, alcohol consumption, and diabetes. Tobacco users of any age run a higher risk of oral cancer as well. Equal measures must be taken, however, when screening all patients. This initial examination is the most crucial step in the prevention process of oral cancer. If a cancerous lesion is overlooked, then the process ends here, leaving the patient at risk.

Physical indications of oral cancer can be quite subtle, and if proper care is not taken during the examination, some signs may be overlooked. The examination can take as little as three minutes and can be done simply with the naked eye. Tools have been specifically developed to enhance the effectiveness of oral cancer screenings, making the screening process more accurate and easier to administer. Oral cancer systems (ie, ViziLite Plus, Zila Pharmaceuticals, Phoenix, AZ) were developed for the specific purpose of enhancing visualization for detecting oral abnormalities. Indications of oral cancer may be identified without the use of oral cancer screening light in a thorough, unaided visual examination, but the enhanced visualization provided by such technology is making unaided vision examinations obsolete (Figures 1 and 2). Oral lesion detection lights also aid in identifying some benign conditions as well. Abnormalities of any kind should be treated with equal concern.

It is the hygienist's and/or clinician's duty to fully document these abnormalities and to decide if further examination (ie, biopsy) is necessary. Documentation of any findings must be conducted such that any other parties (ie, referred specialists) will have a clear understanding of the case. The decisions made after a lesion or abnormality has been discovered are pivotal to the outcome of a patient's health. This is the second most crucial stage of the process. If treatment is given for the abnormality due to cancerous uncertainty, a follow-up must occur within a short period of time to confirm resolution. If no resolution occurs, further steps must be taken by the clinician or a referred specialist. By diagnosing symptoms early on (Figures 3 and 4),

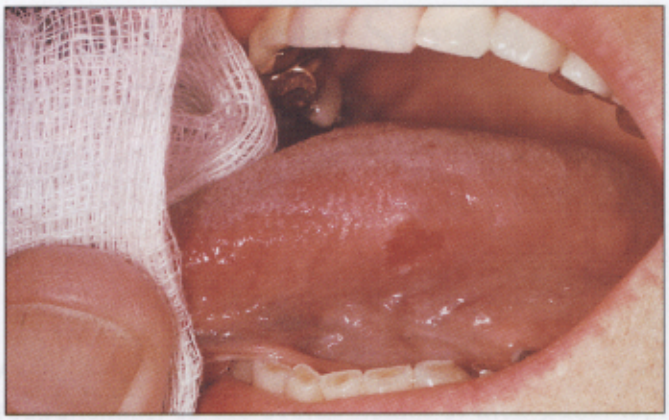

FIGURE 4. Erythroplakia, lateral tongue, diagnosed with scalpel biopsy as squamous cell carcinoma.

FIGURE 5. Squamous cell carcinoma in a more advanced stage.

more advanced stages of the disease may be avoided (Figures 5 and 6).

The dental professional has no true physical capability of fully preventing oral cancer since causes are strictly based upon the lifestyle and genetics of a patient. By thoroughly educating patients of the risks of specific lifestyle choices and the influence of one's family medical history as well as how to identify symptoms and what to expect once contracted, dental professionals can increase the chance of preventing oral cancer before it starts. Discussing the risk of oral cancer with every patient and spreading awareness should be a routine practice for all dental care providers. When patients are more aware of symptoms and possible causes of such a disease, they will be more compelled to report an oral abnormality rather than waiting for it to simply go away.

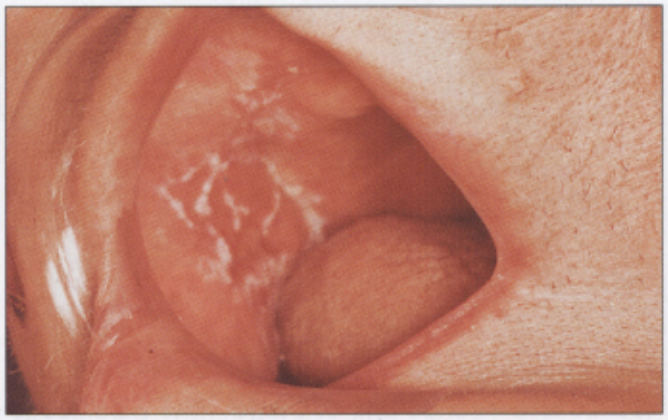

FIGURE 6. Candidiasis covering a lesion that, following biopsy, was diagnosed as squamous cell carcinoma.

Unfortunately, according to the statistics, this process of thorough screenings, referrals, and education is not being carried out to its full extent. If it were, perhaps 66% of oral cancer patients would not be diagnosed as late as Stage III or IV of this disease. For whatever reason clinicians and hygienists do not take oral cancer screenings as seriously as they should, it is simply not worth the risk, and taking more responsibility for oral cancer awareness should not be viewed as a sacrifice. Dental providers can now give annual cancer screenings; technology makes screenings easier and more accurate.

CONCLUSION

Dental care providers are healthcare providers first and foremost. The threat of oral cancer is very real and in no way should be taken lightly. The roots of this disease begin outside the dental office, but because early symptoms can be easily found visually within the oral cavity, who better to monitor the onset of this threat. Dental care providers can change lives in how they reshape a patient's entire dentition, but with extra education, diligence, and caring, they also have the potential to save lives.

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