Dental Hygiene Focus: Dental Hygiene and Oral Cancer Screening

Oral Cancer for Today's Dental Hygienist

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FACTS AND FIGURES

For more than a decade there has been an increase in the incidence of oral and oropharyngeal cancer. There were 4,400 estimated new cases of oral and oropharyngeal cancer in 2015.[1] At the time of writing, the 2016 Canadian Cancer Statistics were not yet available. Incidence rates for oropharyngeal squamous cell carcinoma (OSCC) have significantly increased in numerous countries around the world. The magnitude of increase in OSCC incidence among men is significantly higher at younger ages (< 60 years) than older ages in the United States, Australia, Canada, Slovakia, Denmark, and the United Kingdom.[2]

We understand that there are two primary and distinct pathways that have been identified as etiologic factors in the development of oral and oropharyngeal cancer. One is through the use of tobacco and alcohol—the dominant risk factors with which the dental professional is familiar. A more recent etiology is exposure to persistent infection of a high-risk strain of the human papillomavirus (HPV), specifically HPV-16. Due to the decline in tobacco smoking, HPV-negative, smoking-related oropharyngeal cancer is decreasing while HPV-associated oropharyngeal cancer is increasing.[3]

In fact, researchers are predicting that, if incidence trends continue, the annual number of HPV-positive oropharyngeal cancer diagnoses will surpass the annual number of cervical cancer diagnoses by the year 2020.[3] Under 7 % of people do get oral cancers with no identified etiology. It is currently believed that these cases are likely related to some genetic predisposition.[4]

IMPACT ON ORAL CANCER SCREENING

A thorough oral cancer screening includes a systematic visual examination and manual palpation of all the soft tissues of the oral cavity as well as the lymph nodes surrounding the oral cavity and in the neck. HPV has an affinity for the oropharynx, especially the tonsils and the base of the tongue. Tonsillar cancer is the most common OSCC, followed by base of tongue cancer; together, these two cancers account for 90% of all OSCCs.[5,6] Tonsillar cancer presents a unique challenge to the dental hygienist given the anatomical location and compromised visual acuity. Now more than ever, it is essential to have exceptional visibility and magnification using loupes and a headlight for optimal illumination to facilitate earlier discovery of abnormal lesions.

Of equal and potentially life-saving importance is the identification of subtle symptoms, which include but are not limited to:

- continuous sore throat or persistent infection
- pain when swallowing or difficulty swallowing
- unilateral ear pain
- pain when chewing
- non-healing oral lesions or wart-like masses
- bleeding in the mouth or throat
- hoarseness

- a lump in the throat or the feeling that something is stuck in the throat
- continual lymphadenopathy
- unexplained weight loss
- slurred speech
- tongue that tracks to one side when stuck out
- asymmetry in tonsillar area

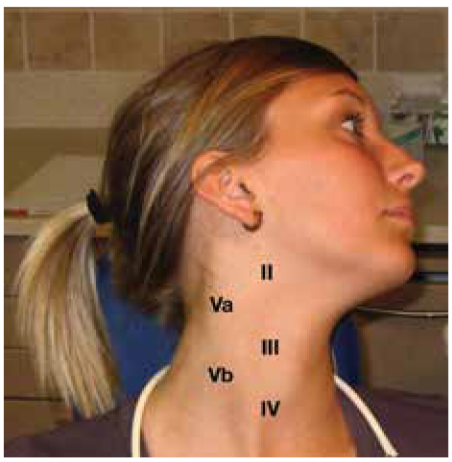

Figure 1

A thorough and effective examination including manual palpation of lymph nodes in the neck is also a critical component of the oral cancer screening examination. Lymph node metastasis is common due to the rich lymphatic drainage of the head and neck area. The cervical nodes are commonly involved and include levels II, III, IV, V, and retropharyngeal lymph nodes (Figure 1). Tumors of the tonsillar pillar, tonsil, and soft palate primarily drain to level II nodes. Tumors of the base of the tongue commonly involve the cervical nodes at levels II, III, IV, V, and the retropharyngeal nodes.[7] Patients with HPV-positive head and neck squamous cell carcinomas are often diagnosed at a late stage, with large cystic lymph nodes in the neck.[8]

CLINICAL RESOURCES AND EDUCATIONAL MATERIALS FOR TODAY'S DENTAL HYGIENE PRACTICE

As primary oral health care professionals, dental hygienists have the responsibility and opportunity to make a powerful impact by increasing the early-stage discovery of oral cancer. A comprehensive extraoral and intraoral examination and appropriate referral can save lives. The Canadian Dental Hygienists Association (CDHA) has responded to this need and recently launched an updated course entitled, "Oral Cancer Screening for Today's Population," available at www.cdha.ca/OralCancer. The course reviews both typical and atypical risk factors of which today's dental hygienist should be aware. A systematic approach to assessment, management, and referral is outlined, accompanied by a vast array of clinical resources and client educational materials, which have been developed to assist the dental hygienist in integrating these important aspects into his or her day-to-day practice.

CDHA has also developed fact sheets and resources that are available at www.dentalhygienecanada.ca/oralcancer to elevate public awareness of risk factors for oral cancer. Additional resources designed specifically for use by the dental hygienist can be downloaded from www.cdha.ca/cdha/resources under the Fact Sheets section.

With continuing education, review of clinical resources, and dissemination of client educational materials, today's dental hygienist can feel both confident and competent in performing an oral cancer screening examination that meets the needs of today's population.

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