

Example of case study on squamous cell carcinoma

[Health & Medicine](#), [Cancer](#)



According to Scully (2012), the oral cavity (which includes the lips and the mouth) is one of the most common forms of cancer around the world, with three quarters of diagnosed cases affecting people in developing countries. In those areas, oral cancer ranks as the third most prevalent of all cancers, just after stomach and cervical cancer, and about 378, 500 new cases are diagnosed every year. In developed countries, oral cancer is less common, but it still ranks as the eighth most common cancer type, although the frequency varies quite a bit by country.

Most oral cancers start in squamous cells, which are flat, thin cells that line the lips and mouth (NCI, 2012). Cancers of this type are called squamous cell carcinomas (SCC), and they usually develop in areas where you can see white patches of cells, such as on the tongue or tonsils (areas known as leukoplakia). Although they start on the surface cells, they may grow deeper into the tissues as they develop, making them appear bulbous, spongy, and ulcerative, with possible recession around the gumline (Burkhardt, 2012 #1). The most common sites of SSCs are on the lower lip, the bottom of the mouth, and the top, flat surface of the tongue. Also important is what's known as the "coffin corner," the area at the back of the tongue, where it meets the floor of the mouth. Growths in this area are often missed by a quick oral inspection, as they are hard to see, so doctors and dentists/dental hygienists need to take special care to observe the entire oral cavity when checking for cancerous growths (Scully, 2012).

There are a number of risk factors associated with oral cancers. The primary risk is from tobacco (either smoked or chewed), but also important are heavy alcohol consumption, excessive exposure to sunlight, either natural or

artificial, being of male gender, and/or having human papillomavirus (HPV) infection (NCI, 2012). The latter is significant since oral sex is thought to be the primary mechanism of viral transmission (Burkhardt, 2012 #1). When the cancer appears on the tonsil area, or farther down in the esophagus, larynx, and pharynx, GERD (gastroesophageal reflux disease) is also considered a risk factor. With GERD, the acid produced by the stomach moves up into the oral cavity, and it is believed to promote the development of cancerous nodules there (Burkhardt, 2012 #2).

There are many ways to detect squamous cell carcinomas, but a routine, physical exam of the lips and oral cavity by a dentist or dental hygienist is the best. After taking a history of the person's medical and dental health habits and treatments, the hygienist will use a long-handled mirror and a penlight to probe and examine the oral cavity, including the insides of the cheeks and lips; the gums; the roof and floor of the mouth; and all parts of the tongue. She will also probe the outside of the neck to determine if the lymph nodes are swollen. SCC may appear quite benign in its early stages, and it is only after the tissue begins to grow rapidly and change its appearance that it becomes obvious and of concern. Digital photographs of the mouth region taken at each routine cleaning or other dental visit are essential to view subtle tissue changes (NCI, 2012).

A biopsy and exfoliative cytology are two other important diagnostic tools, according to the NCI (2012). In both procedures, the hygienist removes cells or tissues from the lips, gums, or tongue, as well as any from areas of leukoplakia, so a pathologist can examine them under a microscope and

determine if they are benign or malignant. In the case of tonsillar SCC, it is important to examine the patient's tonsils and the mouth cavity to determine normal (baseline) patterns for each individual. It is also useful to take intraoral photographs and use them for future comparison of the area, since some patients may have large tonsils that appear highly bulbous most of the time, even in the absence of cancerous lesions.

There are a number of different treatment options for SCC, all of which will be overseen by a medical oncologist, a doctor who specializes in treating people with cancer (NCI, 2012). The options depend on: 1) the stage of the cancer; 2) where the tumor is located within the oral cavity; 3) the size of the growth; 4) the effect the cancer has on the patient's ability to talk and to eat; and 5) the age of the patient and his general health. Some areas of the oral cavity, such as the mouth floor, carry with them higher risk, and they need to be treated more aggressively. Three types of standard therapy include surgery, radiation therapy, and chemotherapy.

Surgery is performed for SCCs regardless of the cancer's stage. It may involve removal of the tumor and some healthy tissue surrounding it, as well as any underlying bone tissue, if the tumor has already spread into the bone. It may also involve removal of the lymph nodes in the neck and surrounding tissues. And if a large tumor or a great deal of tissue has been removed, the patient may require plastic surgery, including dental implants and/or skin grafts to repair the areas of the mouth, throat, or neck, from which the tumor was taken.

Radiation therapy is given depending on the type and developmental stage of the cancer present and uses high-energy X-rays to kill the cancer cells. It may be given externally, where a machine directs the radiation toward the tumor, or internally, where a radioactive substance is sealed in a catheter or a wire placed directly into or near the cancer. Chemotherapy, the use of oral or intravenous drugs to target and treat cancerous lesions, is also an option.

Of note to the dental hygienist, cavities, gingival inflammation, recession, and periodontal disease may require prior attention, especially if radiation therapy will be a method of treatment for the SCC (Burkhardt, 2012 #1). The mouth should be as healthy as possible to prevent further damage during the treatment process. In addition, the hygienist should follow up with the patient closely both during and after treatment of the SCC to check on the health of the gums and teeth and ensure there is no spread of the tumor to other parts of the oral cavity.

It is also important to work with the patient to enable both nutrition and lifestyle changes that will foster total health (Burkhardt, 2012 #1). For example, if radiation and/or chemotherapy are part of the treatment, a nutritionist can help the patient ensure he consumes all the necessary nutrients during a time when eating is especially painful. In addition, overall stress reduction, exercise, healthy eating, and ongoing clinical assessments are all important long-term factors that will allow the patient ultimately to help himself, either to prevent the incidence of squamous cell carcinomas or to manage more effectively his recovery from removal of the tumors.

Works Cited

Burkhart, Nancy W. "Squamous Cell Carcinoma." RDHMag. com. PennWell Corp. 2012. Web. 2 Nov. 2012.

Burkhart, Nancy W. "Squamous Cell Carcinoma of the Tonsil." RDHMag. com. PennWell Corp. 2012. Web. 2 Nov. 2012.

"Lip and Oral Cavity Cancer Treatment." National Cancer Institute. 2012. Web. 3 Nov. 2012.

Scully, Crispian. "Cancers of the Oral Mucosa." Medscape Reference. 2012. Web. 2 Nov. 2012.