Cancer of the Oral Cavity and Pharynx

CANcer OF THE ORAL CAVITY AND PHARYNX

Oral cancer begins in the oral cavity; the lips, tongue, mouth, and throat. There are two types of oral cancer: oral cavity, which involves the mouth, and oropharyngeal, which involves the throat, see Figure 1.

Figure 1: Anatomy of the Oral Cavity and Pharynx

The most common symptom includes a sore in the throat or mouth that bleeds easily and does not heal. Other symptoms include:
- A lump or thickening in the cheek;
- A white or red patch on the gums, tongue, tonsil, or lining of the mouth;
- A sore throat or feeling that something is caught in the throat; or
- Difficulties in chewing, swallowing, or moving the tongue or jaw.

WHY IS IT IMPORTANT?

There is a gradual increasing trend in the incidence of oral cavity and pharynx cancers in Arkansas, see Figure 2. Recent studies have shown that incidence of oral cancer is rising because of the high prevalence of human papillomavirus (HPV) infection among white males under the age of 50. HPV infection is associated with cancers of the tonsil, base of tongue, and other sites within the oropharynx. In Arkansas, The majority of oral cancers occur on the tongue and tonsil, see Figure 3.

Other risk factors associated with the disease include prolonged sunlight exposure usually associated with outdoor jobs, the use of smoked or smokeless tobacco products, and excessive consumption of alcohol. Studies have shown a 30-fold increased risk for individuals who both smoke and drink alcohol heavily. While current cigarette use is beginning to decrease in Arkansas, the rate of smokeless tobacco use is on the rise, see Figure 4.
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HOW BIG IS THE PROBLEM IN ARKANSAS?

Approximately 4,066 Arkansans were diagnosed with oral cavity and pharynx cancers during 1997 – 2008, and 963 died of the disease from 1997 – 2007.

In the U.S., oral cancers are twice as common in men as in women. In Arkansas, men were nearly three (2.8) times more likely to be diagnosed with oral cancer than women, 17.6/100,000 for men and 6.3/100,000 for women. The higher incidence among men can be attributed to the increases in risk factors associated with oral cancers; smoking, use of smokeless tobacco, exposure to sunlight, and an increased prevalence of HPV. 2

PREVENTION AND EARLY DETECTION OF ORAL CAVITY AND PHARYNX CANCERS

Preventing known risk factors (tobacco use, alcohol use, sunlight exposure, and HPV infection) is crucial to reducing the incidence of oral cancers.

Tumors diagnosed at early stages (localized) are often curable. Most oral cancers in Arkansas were diagnosed at late stages of disease and men were more likely to have tumors diagnosed later than women, see Figure 5.

In order to detect tumors early, the American Cancer Society recommends that primary care doctors, dentists, and dental hygienists examine the mouth and throat as part of routine cancer-related care. According to the American Dental Hygienists Organization, most oral premalignant lesions and cancers are detectable at the time of a comprehensive oral exam. These lesions often present as a white patch, or less frequently, a red patch, and progression from premalignant lesions to cancer usually occurs over several years. 3

The elements of a comprehensive oral exam include:

**Extra-oral examination**
- Inspect the head and neck region for asymmetry, tenderness, or swelling;
- Palpate the submandibular, neck, and supraclavicular regions for lymph nodes, paying particular attention to size, number, tenderness, and mobility;
- Inspect and palpate the lips and peri-oral tissues for abnormalities.

**Intra-oral examination**
- Inspect and palpate all oral soft tissues, paying attention to the high-risk sites for the development of oral cancer: tongue, floor of mouth, the soft palate complex, and tonsils.

In addition, many doctors, dentists, and dental hygienists also suggest individuals at high-risk perform a self-examination monthly by using a mirror to check for signs and symptoms of cancer in the mouth and throat. 2

REFERENCES