INCIDENCE AND SURVIVAL

Oral cancer accounts for roughly two percent of all cancers diagnosed annually in the United States; approximately 3,000 people will be diagnosed with oral cancer each year and about 700 die from the disease. In contrast, 75 percent of those with the disease will survive more than 5 years.

THE IMPORTANCE OF EARLY DETECTION

With early detection and及时treatment, deaths from oral cancer could be dramatically reduced. The Lyon protocol rate for those with localized disease at diagnosis is 83 percent compared with only 50 percent for those whose cancer has spread to other parts of the body.

Early detection of oral cancer is often possible. Three changes in the mouth that might signal the beginnings of cancer often can be seen and felt easily.

WARNING SIGNS

Look for the following signs:

1. Lesions that could be precursors to cancer are leukoplakia (white lesions) and erythroplakia (red lesions).
2. Lesions that look unusual, feel hard or thick, and have an abnormal appearance may be precursors to cancer. Biopsy shows early cancer.
3. Any white or red lesion that does not resolve itself in 2 weeks should be evaluated and considered for biopsy to obtain a definitive diagnosis.

Risk factors

◆ Possible signs/symptoms of oral cancer and cancer

Several risk factors can be identified:

1. Tobacco and alcohol use
2. Sun exposure
3. Diet
4. Human papilloma virus

RISK FACTORS

Most cases of oral cancer are linked to cigarette smoking, alcohol use, and human papilloma virus (HPV). The lesions are often painless, but may be caught early. Using tobacco plus alcohol poses a much higher risk than using either substance alone.

WHAT YOU CAN DO

A thorough head and neck examination should be a routine part of each patient’s dental visit. Clinicians should be particularly vigilant in checking those who use tobacco or excessive amounts of alcohol.

◆ Examine may patients using the head and neck examination described here.

◆ Take a history of their alcohol and tobacco use.

◆ Inquire about their use of the association between tobacco use, alcohol use, and oral cancer.

◆ Follow up to make sure a definitive diagnosis is obtained on any possible precursors of oral cancer.

THE EXAMINATION

The examination is conducted in the patient’s seated position. Any intraoral prosthesis are removed before starting. The extraoral and intraoral tissues are examined first, followed by the intraoral tissues.

The examination described here is adapted from the standardized oral examination method recommended by the World Health Organization. This method is consistent with those followed by the Centers for Disease Control and Prevention and the National Institutes of Health. It requires using a head mirror (without a light), a dental mouth mirror, two 2 x 2 gauze squares, and gloves; it should take no longer than 5 minutes.

The examination includes:

1. The External Examination
   a. BMES (Figure 1)
2. Postural and Intrabuccal Soft Tissue Examination
   a. LES (Figure 2)
   b. LABIAL MUCOSA (Figures 3 and 4)
   c. LABIAL MUCOSA (Figures 5 and 6)
   d. GENIUMA (Figure 7)
3. TONGUE (Figures 8-21)
4. FLOOR (Figure 32)
5. PALATE (Figures 13-13)

ORAL LESIONS

Suspicious for Oral Cancer

- Homogeneous leukoplakia in the floor of the mouth in a smoker. Biopsy showed hyperplasia.
- Clinically, a leukoplakia on left buccal mucosa. Biopsy showed epidermal dysplasia.
- Nodular leukoplakia in right commissure. Biopsy showed severe epidermal dysplasia.
- Erythroleukoplakia in left commissure and buccal mucosa. Biopsy showed mild epithelial dysplasia and presence of candida infection.
- A 2-3 week course of anti-fungal treatment may turn this type of lesion into a homogeneous leukoplakia.
EXAM REVIEW

The examination is conducted with the patient seated. Any intraoral prostheses (dentures or partial dentures) are removed before starting the examination. The extramural and palatal tissues are examined first, followed by the intramural tissues.

I. THE EXTRAMURAL EXAMINATION

- **FACE** (Figures 1 and 2): The extramural assessment includes an inspection of the face, head, and neck. The face, ears, and neck are observed, noting any asymmetry or changes on the skin such as defects, telangiectasia, and/or color change. The regional lymph node areas are bilaterally palpated to detect any enlarged nodes, and if detected, their mobility and consistency.

  - **LABIAL MUCOSA** (Figures 3 and 4): With the patient's mouth partially open, visually examine the labial mucosa and sulcus of the maxillary vestibule and frenum and the mandibular vestibule. Observe the color, texture, and any swelling, color, texture, or other abnormalities of the vestibular mucosa and gingiva.

  - **BUCCAL MUCOSA** (Figures 5 and 6): Retract the buccal mucosa. Examine first the right then the left buccal mucosa extending from the labial commissure and back to the anterior tonsillar pillar. Note any changes in pigmentation, color, texture, mobility, and other abnormalities of the mucosa, making sure that the commissures are examined carefully and are not covered by the retractors during the retraction of the cheek.

II. INTRAMURAL, SOFT TISSUE EXAMINATION

The palatal and intramural examination procedure follows a step-by-step systematic assessment of the lips, labial mucosa and sulcus, commissures, buccal mucosa, and sulcus; gingiva and alveolar ridge; tongue; floor of the mouth; and hard and soft palate.

- **LIPS** (Figure 8): Begin examination by observing the lips with the patient's mouth both closed and open. Note the color, texture and any surface abnormalities of the upper and lower vermilion borders.

- **LABIAL MUCOSA** (Figures 9 and 10): With the patient's mouth partially open, visually examine the labial mucosa and sulcus of the maxillary vestibule and frenum and the mandibular vestibule. Observe the color, texture, and any swelling, color, or other abnormalities of the vestibular mucosa and gingiva.

- **BUCCAL MUCOSA** (Figures 11 and 12): Retract the buccal mucosa. Examine first the right then the left buccal mucosa extending from the labial commissure and back to the anterior tonsillar pillar. Note any change in pigmentation, color, texture, mobility, and other abnormalities of the mucosa, making sure that the commissures are examined carefully and are not covered by the retractors during the retraction of the cheek.

- **LINGVIA** (Figure 13): First, examine the buccal and labial aspects of the gingiva and alveolar ridges (processes) by starting with the right maxillary posterior gingiva and alveolar ridge and then move around the arch to the left posterior area. Drop to the left mandibular posterior gingiva and alveolar ridge and move around the arch to the right posterior area.

  - **TONGUE** (Figure 14): With the patient's tongue at rest, and mouth partially open, inspect the dorsum of the tongue for any swelling, ulceration, coating, or variation in size, color, or texture. Also note any change in the pattern of the papillae covering the surface of the tongue and examine the tip of the tongue. The patient should then protrude the tongue, and the examiner should note any abnormality of mobility or positioning.

- **TONGUE** (Figure 15): With the aid of mouth mirrors, inspect the right and left lateral margins of the tongue. Then examine the ventral surface. Grasping the tip of the tongue with a piece of gauze will assist full protrusion and will aid examination of the more posterior aspects of the tongue's lateral borders.

- **FLOOR** (Figure 16): With the tongue still elevated, inspect the floor of the mouth for any changes in color, texture, swellings, or other abnormalities.

- **PAALATE** (Figures 17 and 18): With the mouth wide open and the patient's head tilted back, gently depress the base of the tongue with a mouth mirror. First inspect the hard and then the soft palate.