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Hospital Affairs /

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NEW JERSEY DENTAL SCHOOL

University of Medicine & Dentistry of New Jersey



**A Role for Health Care
Professionals in the Fight
Against Oral Cancer**

Let's First Look at the Problem

- Oral and oropharyngeal cancer will account for up to 31,000 new cancer cases and 8,000 to 9,000 deaths, representing 2% to 3% of all cancer deaths.

- Five-year relative cancer survival rates 56% for whites, 35% for blacks, and 54% for all races.

- Ninety percent of oral cancers are squamous cell carcinoma. Five percent are salivary gland malignancies, 5% melanomas, sarcomas, and lymphomas.

- To reduce morbidity and mortality associated with oral and oropharyngeal cancer we must focus on primary prevention and early detection.

- Known risk factors for squamous cell carcinoma:
 - long-term tobacco use
 - alcohol use
 - immunosuppression
 - use of the betel (areca) quid
 - long-term sun exposure
 - recent studies indicate infection with human papillomavirus.
 - erosive lichen-planus
 - lack of comprehensive oral cancer examination
 - nutrition

- 1/3 of cases are diagnosed in the early stages.
- 2/3 has already spread regionally or has metastasized.

- N.J. Data: Incidence of disease
 - black males, 23.5 per 100,000**
 - white males, 14.0 per 100,000**
 - black females, 5.1 per 100,000***
 - white females, 5.5 per 100,000**

- The national cost to treat oral and oropharyngeal cancer is approximately 1.6 billion dollars annually.

Factoring in the costs related to post-operative job loss and other post-operative burdens. The total national cost of this disease rises to almost 8 billions dollars per year.

Now Let's Solve the Problem

Comprehensive Oral Cancer Exam

Tools and Time

This exam is abstracted from the standardized oral examination method recommended by the World Health Organization. The method is consistent with those followed by the Centers for Disease Control and Prevention and the National Institutes of Health. It requires adequate lighting, a dental mouth mirror, two 2" x 2" gauze squares, and gloves; it should take no longer than 5 minutes.

The examination is conducted with the patient seated. Any intraoral prostheses are removed before starting. The extraoral and perioral tissues are examined first, followed by the intraoral tissues.

Perioral and Intraoral Soft Tissue Examination: Right Margin of the Tongue



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

Training Ourselves to Identify Oral Manifestations of Pathology

What to Expect in Your Practice

Known benign entities

Harmless appearing, white or red spots of unknown origin

Highly suspicious lesions

Presentation

fibromas, mucoceles, linea alba, Fordyce granules, aphthous ulcers, traumatic ulcers, herpes labialis, amalgam tattoos



Frequency in average dental practice

Several times each day

About twice a week

Once or twice each year

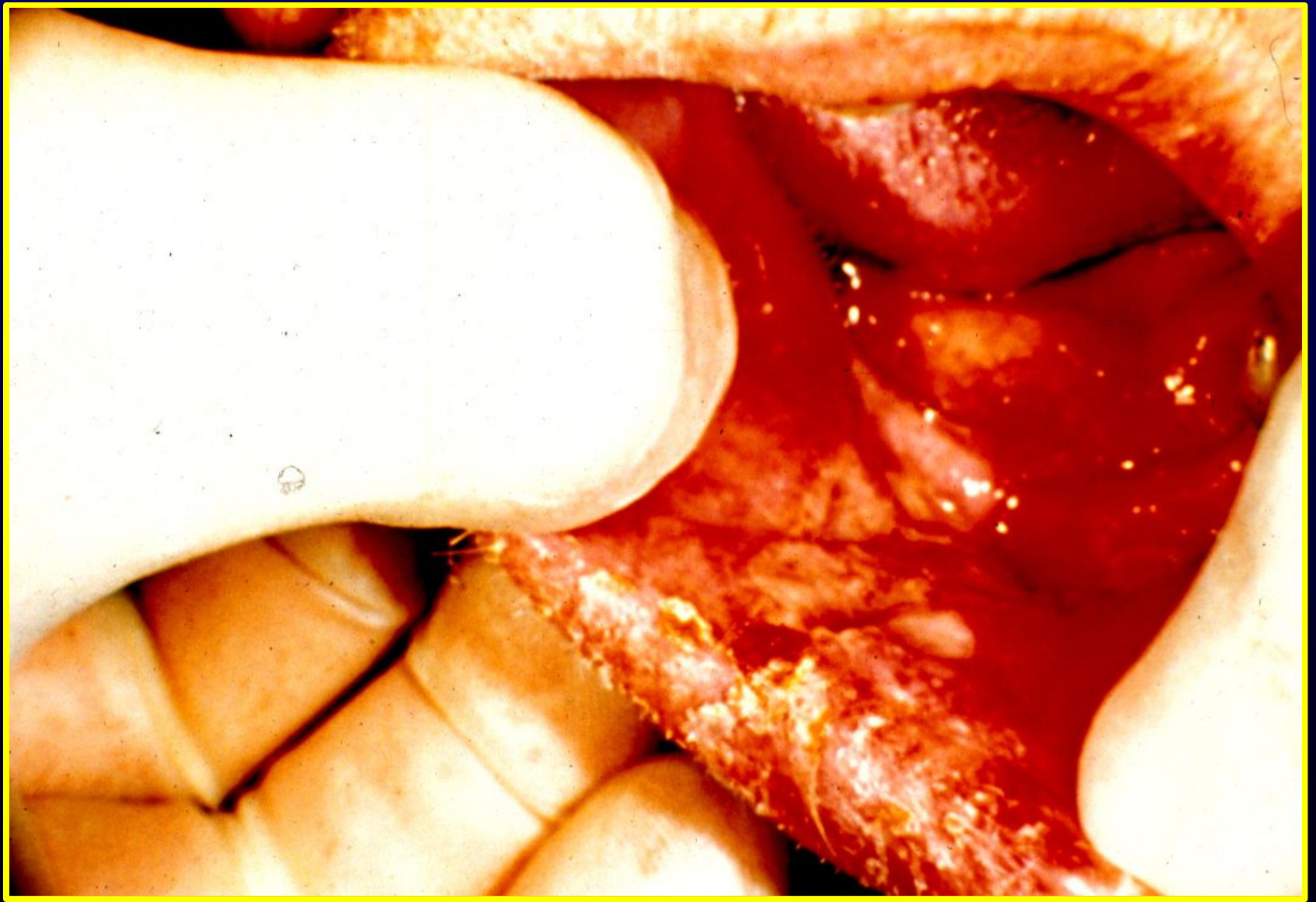
Action

Observe or treat

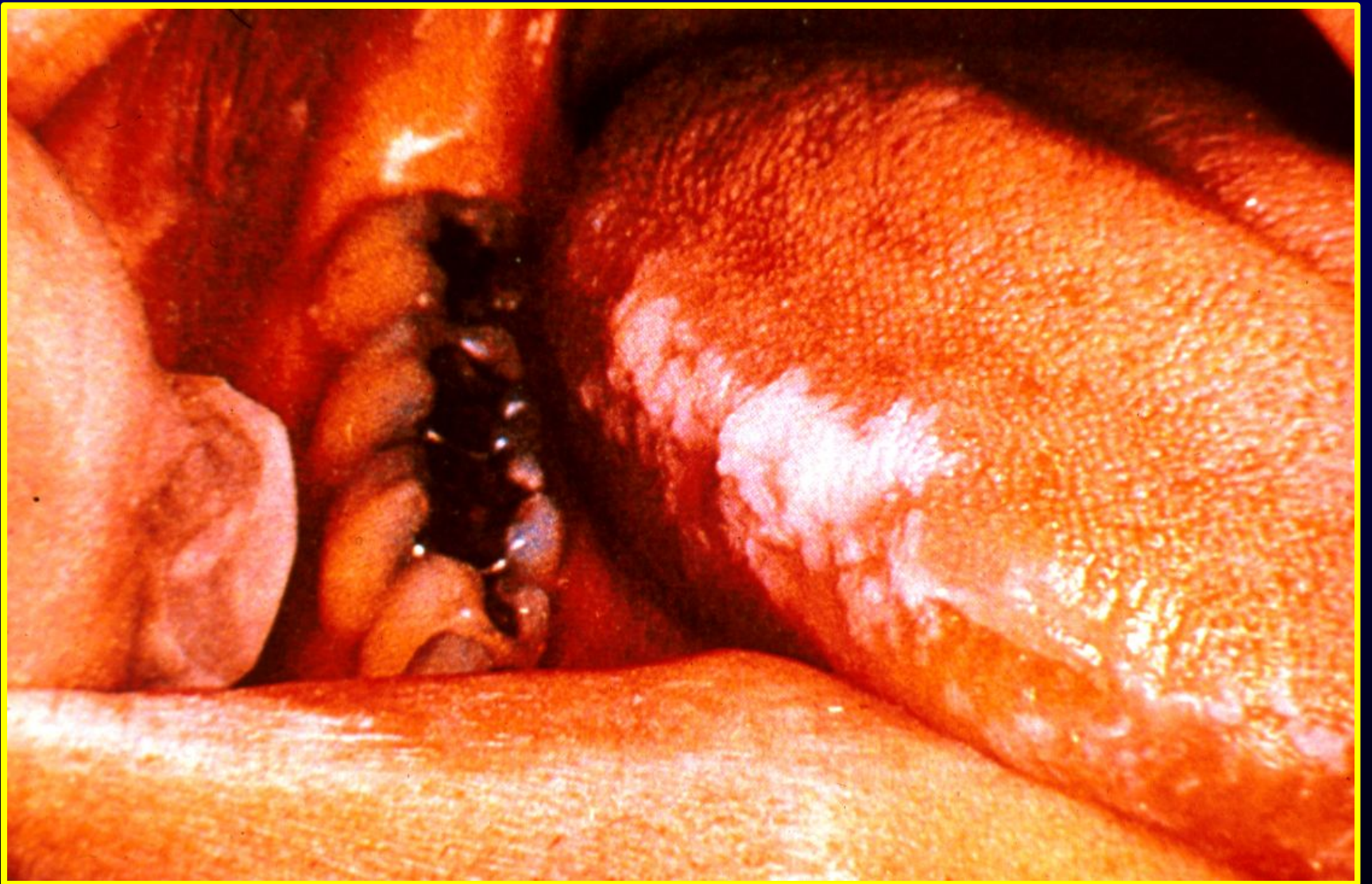
Brush biopsy

Scalpel biopsy

Let's First Address Oral
Manifestations of Lesions of
Local and Systemic Etiology,
but not Cancer





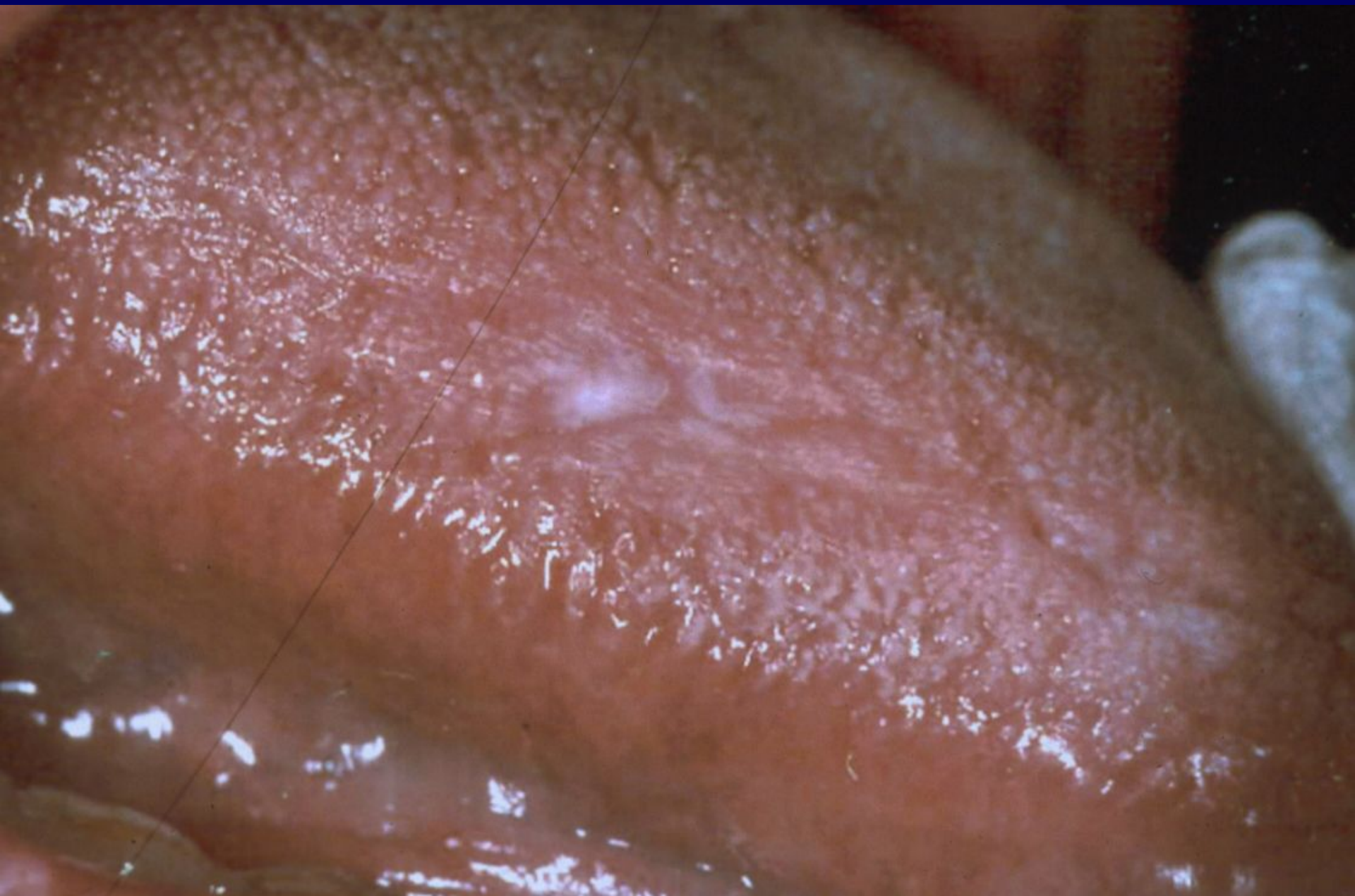


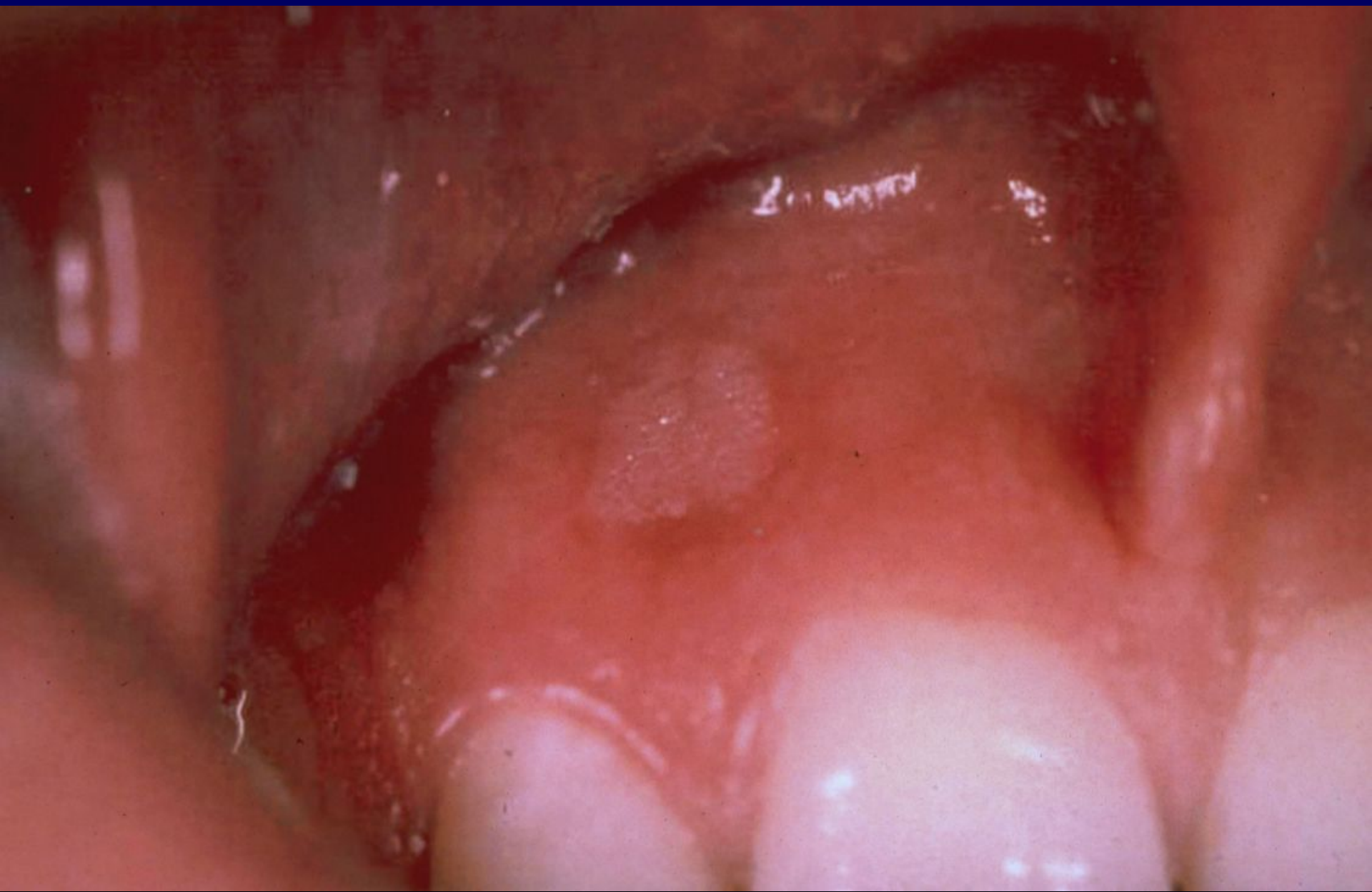
Oral Cancer





Oral Mucosal
Abnormalities of Low
Suspicion
(red & white spots)



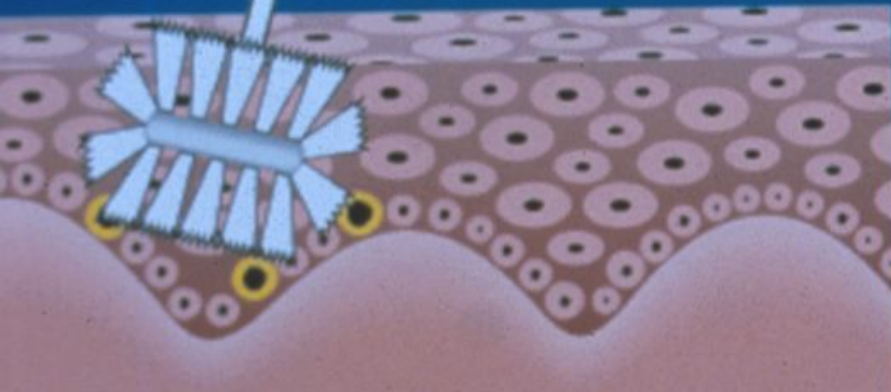


The Brush Biopsy

BRUSH BIOPSY

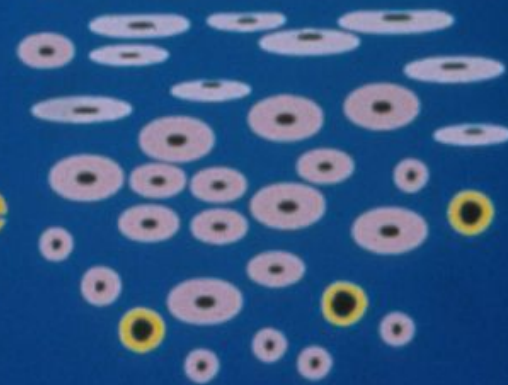
Complete Transepithelial
Tissue Sample

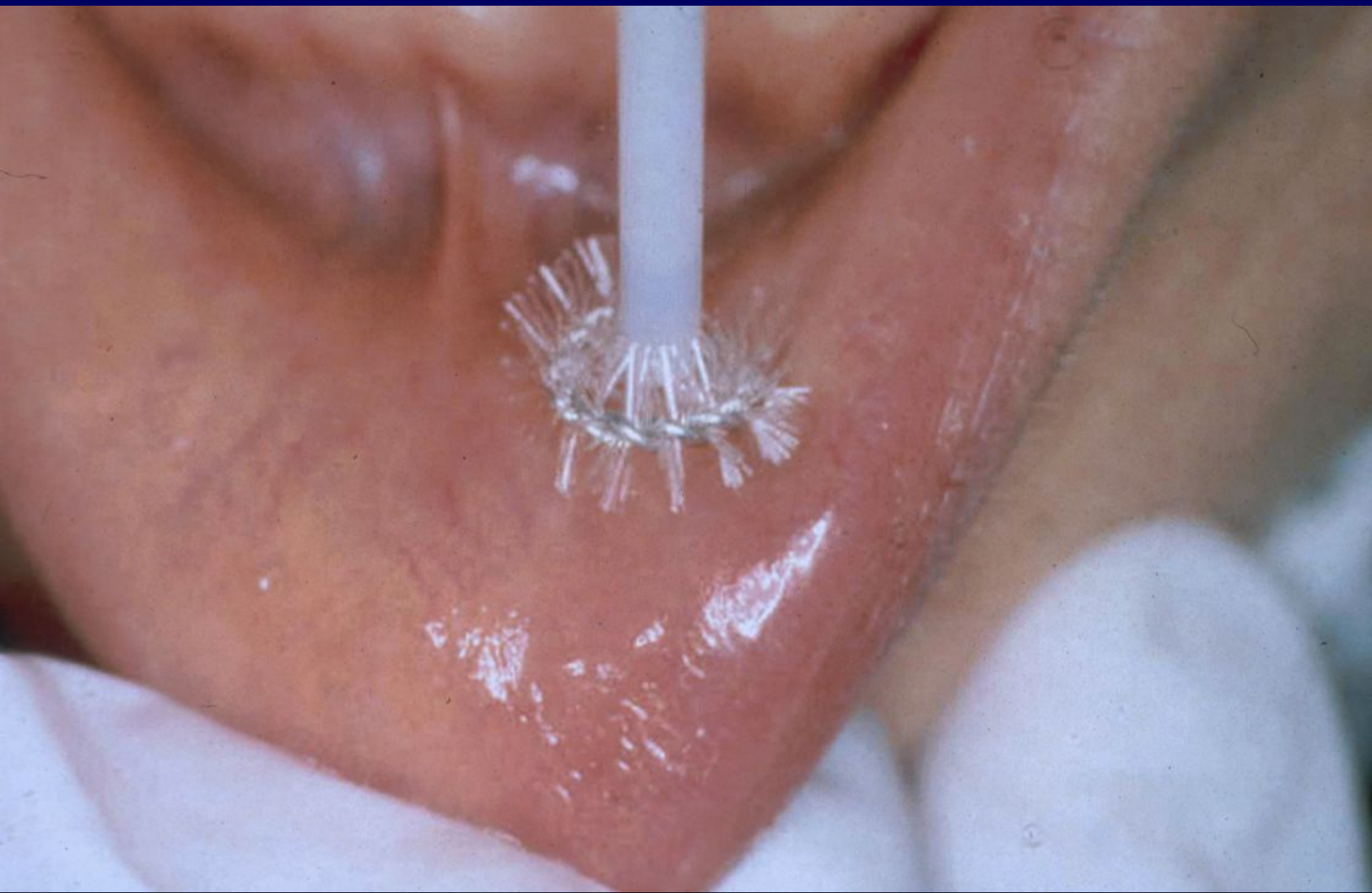
OralCDx
Brush Biopsy
Instrument



Superficial
Intermediate
Basal

SPECIMEN



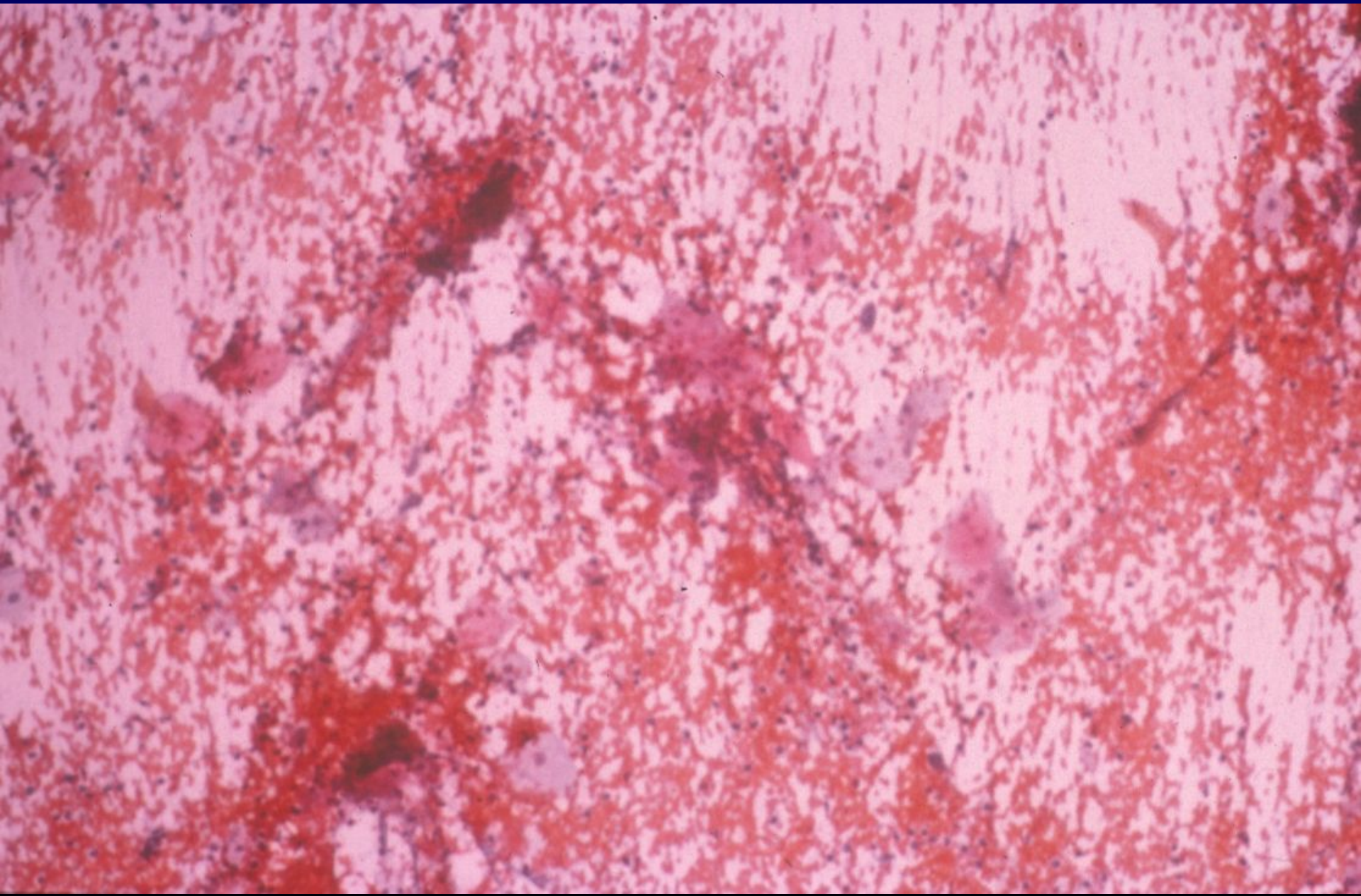




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OralCDx Results

Classification

“negative”: no cellular abnormalities

Abnormal Results:

“positive”: definitive cellular evidence of epithelial dysplasia or carcinoma

“atypical”: abnormal epithelial changes warranting further investigation

A Fail-Safe Procedure

- OralScan Laboratories automatically confirms the adequacy of each brush biopsy specimen and determines if cells from all three layers of the epithelium have been sampled
- Inadequate specimens, which most commonly result from either insufficient pressure or too few rotations of the brush, should be repeated - lab analysis repeated at no charge