

CLINICAL STOMATOLOGY CONFERENCE

DNOSC D9910.00

October 17, 2007

I. Biopsy techniques

II. How to submit a tissue biopsy

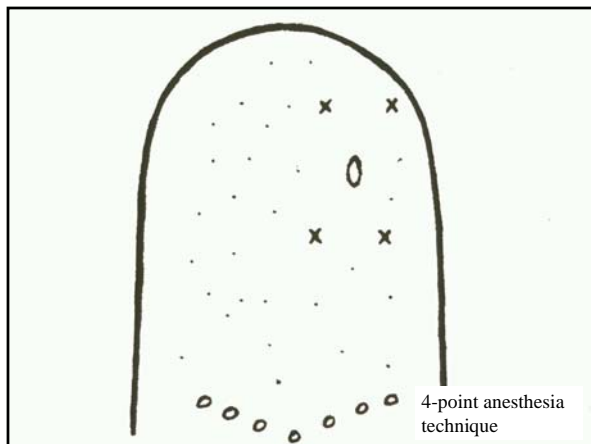
Overview

- Scalpel biopsy
- Punch biopsy
- Brush biopsy

- Why submit a biopsy
- How to submit a biopsy

General guidelines of oral mucosal biopsies

- Most will be *incisional* biopsies rather than *excisional* biopsies
- Select the "worst"-looking area to biopsy
- Always be aware of regional anatomy (e.g. nerves, blood vessels, etc.)
- Anesthetize *around* the lesion rather than directly into the lesion
- With incisional biopsies, may be helpful to obtain minimal normal adjacent mucosa (2/3 lesion, 1/3 normal)
- Avoid biopsying the center of an ulcer or necrotic area
- Avoid crushing the specimen with forceps
- Hemostasis with pressure \pm suture or silver nitrate

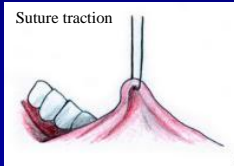


Scalpel biopsy

- Advantages:
Sutures may not be required
Control over size and depth of specimen
Acceptable for biopsy of both *freely movable* (e.g. soft palate, floor of mouth) and *bound down tissues* (e.g. gingiva, hard palate)
May produce a more satisfactory specimen without excess tissue such as in punch bx
- Drawback:
May be more technique-sensitive

Scalpel biopsy

- Armamentarium:
 - Local anesthesia
 - No. 15 blade
 - Forceps
 - Scissors
 - Suture and needle driver
 - if closing by 1^o intention
 - if using *suture traction*
 - Sterile gauze



Most lesions are suitable for scalpel biopsies

Punch biopsy

- Advantages:
 - Ease of technique
 - Sutures may not be required if small diameter punch
 - May produce a more satisfactory specimen in *bound down tissues* (e.g. hard palate)
- Drawbacks:
 - May not be adequate for biopsy of deeper pathology
 - May be difficult to biopsy *freely movable tissues* (e.g. soft palate, floor of mouth)

Punch biopsy

- Available in various diameters
 - 2.0mm, 3.0mm, 3.5mm, 4.0mm, and above
 - for oral mucosal biopsies, mostly 3.0-4.0mm
- Disposable

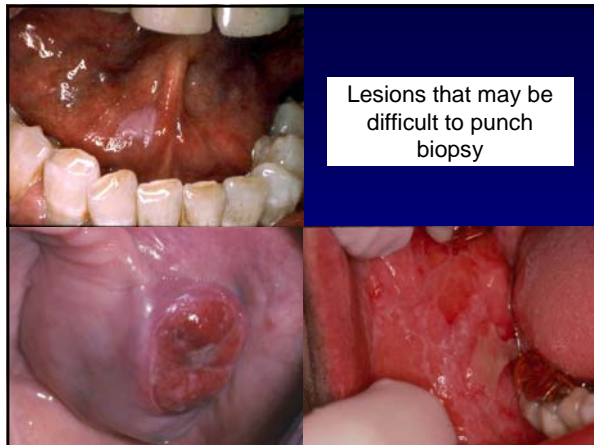
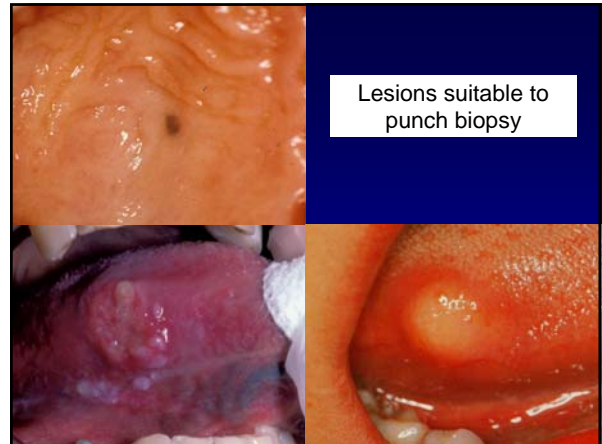
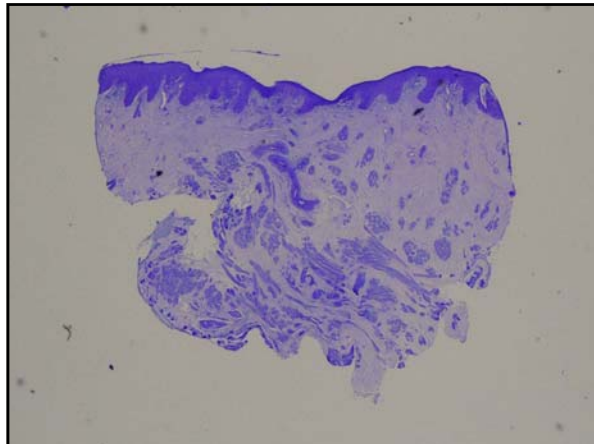
Punch biopsy

- Armamentarium
 - Local anesthesia
 - Punch biopsy
 - Forceps
 - Scissors or scalpel
 - Suture and needle driver
 - if closing by 1^o intention
 - Sterile gauze



Punch biopsy





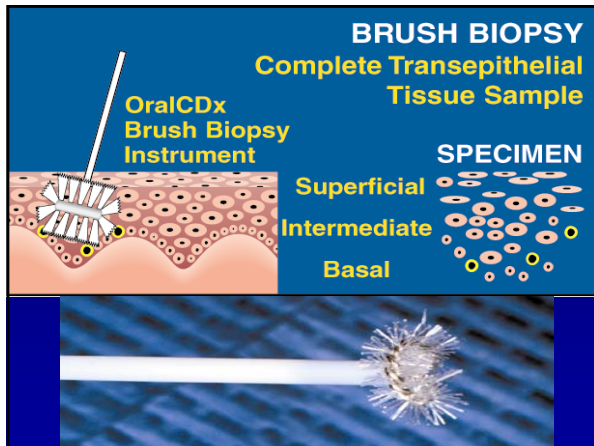
Article by Hillel Ephros, DMD, MD
<http://www.emedicine.com/derm/topic700.htm>

Brush biopsy

- **OralCDx**
- **Purpose (OralCDx):**
 "To test benign-appearing, common white or red spots that would not have been selected for biopsy"
- **Indications:**
 - 1) Invasive biopsy not suitable
 - lack of patient acceptance
 - 2) Lesions that require long-term histological follow-up
 - multiple, successive, invasive biopsies not practical

Brush biopsy

- **Advantages:**
 - Ease of technique
 - Non-invasive
 - Patient acceptance
- **Drawbacks:**
 - Lack of tissue architecture
 - Reactive* changes may mimic *atypical* changes on interpretation
 - Not useful for the diagnosis of pigmented or connective tissue lesions

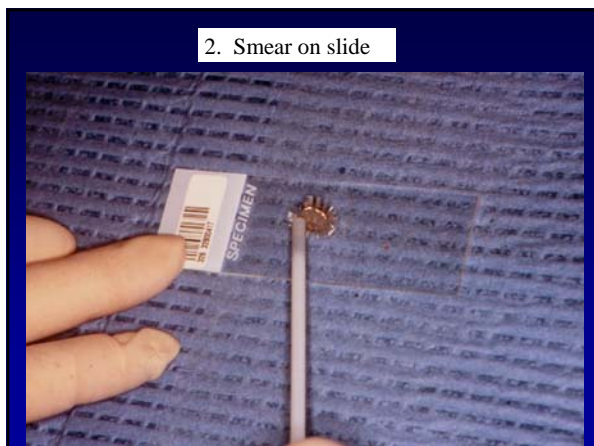
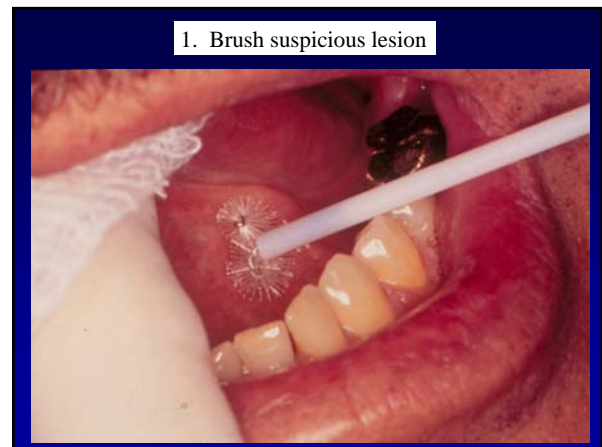


Brush biopsy

- Two components to a brush biopsy
 - 1) **Dentist's Procedure**
 - brush biopsy
 - 2) **Laboratory Analysis**
 - computer-assisted inspection specifically designed for oral lesions

The OralCDx Test Kit

- Oral brush biopsy instrument
- Precoded glass slide and matching coded test requisition form
- Alcohol fixative pouch
- Preaddressed container for submitting the contents



Microscopic Description: Mild atypia
 Cellular Representation: Superficial, intermediate, and basal cells
 OralCDx Result: **Atypical epithelial cells-warranting further investigation**

April 15, 2002
 Dear Doctor:

The OralCDx Display shows clusters of hyperplastic basal cells with loss of polarity and crowding, an increase in the nuclear to cytoplasmic ratio, and an increase in nuclear staining.

* If this report is a fax, then the original report with color images will be forwarded.

Lesions suitable to brush biopsy

Lesions NOT suitable to brush biopsy

How to submit a biopsy

Why submit a biopsy?

- Establish a *definitive histopathologic diagnosis*
- Confirm a provisional clinical diagnosis
- Clinical and pathologic correlation
- Provides diagnostic information to clinician for management of disease
- Documentation purposes

How to submit a biopsy

Why submit a biopsy? (cont'd)

© *Submission of removed tissue is considered the standard of patient care*

How to submit a biopsy

Reluctance to submit tissue biopsies

- Where are the materials?
- What do I submit?
- Where do I submit to?

How to submit a biopsy

Where are the materials?

- 1) Oral pathology office (PH 1562, 15th floor, x5-4599)
- 2) Oral Surgery clinic
- 3) Triage

How to submit a tissue biopsy

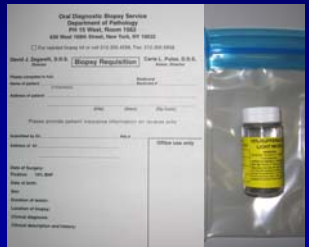
What do I submit?

- 1) What should be submitted to oral path
 - all tissue removed from the oral & maxillofacial region
 - **excludes:** teeth w/o soft tissue
extirpated pulp tissue
clinically normal tissue
excess donor tissue from grafting procedures

How to submit a tissue biopsy

What do I submit?

- 2) What constitutes a complete submission
 - Requisition slip
 - Specimen container
 - Specimen (of course!)



How to submit a tissue biopsy

Requisition slip

- * **Patient info**
- * **Submitting Dr.**
- * **DOB**
- * **Location**
- * **Clinical dx**
- * **Clinical description**
 - Excisional vs. incisional bx

How to submit a tissue biopsy

Where do I submit to?

- Oral pathology office (PH 1562, 15th floor)
- If you can't come up, call us! (x 5-4599)

Billing codes

- Biopsy, *soft tissue* – 7286
- Biopsy, *hard tissue* - 7285