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 + 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 1st intention
    - if using suture traction
  - Sterile gauze

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

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

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
Lesions suitable to punch biopsy

Lesions that may be difficult to 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

1. Brush suspicious lesion
2. Smear on slide
3. Pour on alcohol fixative and let dry
### 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

#### Why submit a biopsy? (cont’d)
- Submission of removed tissue is considered the standard of patient care

#### 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

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

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