The Rainbow of Common Lesions
Overview

• What to take away
  o There are many common oral lesions
    ➢ Some require treatment, many do not
  o Basics of differential diagnosis
    ➢ You need to know some of the likely possibilities
    ➢ Normal from Not Normal

• Organization by Color
  o Pink
  o White
  o Red and White
  o Blue/Black/Brown
  o Yellow
How I would start diagnosis
Chief Complaint

- Outside of routine dental exam, there will be a CC
- Pain & Symptoms?
- Onset and duration?
  - Often underestimated
Look at Dental Chart

- To see if there is a history of similar problem in past
- Possible odontogenic causes from
  - endodontics
  - operative dentistry
  - oral surgery
  - etc.
- Tobacco Use
- Medicines
- Allergies
- Surgeries/Hospitalizations
- Medical Conditions
- Family History
Exam

- **Extra Oral**
  - Head and Neck
    - Symmetry
    - Swelling
    - TMJ
    - Lymphadenopathy

- **Intra Oral**
  - Lesion
    - Location
    - Color
    - Size
    - Shape
    - Raised (exophytic)/Depressed (endophytic)/Flat (Macule)
    - Texture: Soft, fluctuant, hard, indurated, fluid filled, lobes
  - Look at surrounding teeth
Oral/Oropharyngeal Cancer - The facts

- Oral and oropharyngeal cancer accounts for 30% of Head and Neck Cancer in US
- Oral and oropharyngeal cancer is the 8th most common cancer in the US
- 39,500 new cases of Oral Cancer per year in US (90% OSCC)
- 7,500 people will die of oral and oropharyngeal cancer this year in the US
- 500,000 new cases of Oral Cancer per year Globally
- Approximately 50% of patients diagnosed with N+ OSCC will ultimately die of their disease

Holmes JD, Martin RA, Gutta R. Characteristics of head and neck cancer patients referred to an oral and maxillofacial surgeon in the United States for Management. JOMS 2010; 68: 555-561
Surveillance, Epidemiology and End Results (SEER) Program, NCI Surveillance Research Program
Color of Lesions

FROM MOST TO LEAST COMMON

PINK
Pink Lesions

Exostoses and Tori
- Color: Pink
- Size: Variable
- Shape: Round
- Texture: Hard (it’s bone)
Exostoses and Tori

- **Pain:** None, unless ulcerated
- **Duration:** Years
- **Characteristics:**
  - Hard
  - Extraneous normal bone growth (up to 25% of people)
- **Location:**
  - Palate
  - Inner mandible
  - Buccal bone adjacent to teeth
- **Treatment:** None
- **Med-evac:** No
Fibroma

- Color: Pink
- Size: Variable
- Shape: Round and Raised
- Texture: Soft
Fibroma

- **Pain:** None
- **Duration:** Years
- **Characteristics:**
  - Most common “tumor” of the mouth
  - Reactive hyperplasia of fibrous tissue
  - Normally from trauma (cheek or tongue)
- **Treatment:** Excision and biopsy
- **Med-evac:** No
Color of Lesions

FROM MOST TO LEAST COMMON

WHITE
White Lesions

Morsicatio & Linea Alba

- Color: White
- Size: cm’s
- Shape: Line and irregular/Flat
- Texture: Soft & Rough
Morsicatio & Linea Alba

- **Pain:** Unlikely
- **Duration:** Variable
- **Characteristics:**
  - Located at occlusal plane, rough appearance
  - Pt may be aware of cheek chewing habit
- **Treatment:** None, or remove irritant
- **Med-evac:** No
White Lesions

Tobacco Pouch Keratosis

- Color: White
- Size: cm’s
- Shape: Pouchlike irregular /Flat
- Texture: Soft & Rough
Tobacco Pouch Keratosis

- **Pain:** Unlikely
- **Duration:** While smokeless tobacco continues
- **Characteristics:**
  - Abrasion located at habitual site
  - Rough white
  - 4 x cancer risk
- **Treatment:** Remove irritant, biopsy if does not resolve in 2 weeks
- **Med-evac:** No
Leukoedema
- Color: White
- Size: cm’s
- Shape: Regular/Raised
- Texture: Soft
Leukoedema

- Pain: None
- Duration: Inherited
- Characteristics:
  - Located at buccal mucosa
  - When cheeks stretched, lesion fades
- Treatment: None
- Med-evac: No
Leukoplakia
- Color: White
- Size: cm’s
- Shape: irregular / Flat
- Texture: Soft

White Lesions
Leukoplakia

- **Pain:** None
- **Duration:** Variable
- **Characteristics:**
  - White patch that does not rub off and has no other diagnosis
  - Considered precancerous
  - Miscellaneous causes, carcinogens, trauma, microorganisms
- **Treatment:** After initial detection follow-up in two weeks, if still present → Biopsy
- **Med-evac:** No
  - 4-15% malignant transformation, usually takes years to develop. However, refer when available
Lichen Planus

- Color: White
- Size: cm's
- Shape: Irregular, lacelike, Flat
- Texture: Soft

White Lesions
Lichen Planus

- **Pain:** None, possible itching
- **Duration:** Variable
- **Characteristics:**
  - Characteristic striations or lace-like crisscrossing white lines
  - Immune mediated
  - Generally asymptomatic
- **Treatment:**
  - Generally none
  - Conditions can be caused by medicinal reaction
  - If severe and erosive, (mixed white/erythema) topical corticosteroids
- **Med-evac:** No, evaluation when available if continually symptomatic
Papilloma

- Color: White
- Size: mm’s
- Shape: Round, Raised/pedunculated
- Texture: Soft
Papilloma

- **Pain:** No
- **Duration:** Appears over months and stays until removed
- **Characteristics:**
  - Pedunculated, cauliflower appearance with surface projections
  - Similar to warts (verruca vulgaris) caused by HPV
- **Treatment:** *Excise*
- **Med-evac:** No, refer when available
Color of Lesions

FROM MOST TO LEAST COMMON

RED & WHITE
Ulcerations (Traumatic & Apthous & Herpetic)
- Color: White/Red
- Size: mm’s
- Shape: Circular, Flat
- Texture: Soft / Ulcerated
Ulcerations (Traumatic & Apthous & Herpetic)

- **Pain:** Yes
- **Duration:** 7-10 days
- **Characteristics:**
  - Trauma induced is self-diagnosed
  - Apthous (canker sores) may be stress, immune, or unknown etiologies
    - Cheek, inner lip, tongue (not gingiva or hard palate)
  - Herpetic (cold sores) – herpes simplex virus I or II, often stress/trauma causes recurrence
    - Lips, but also gingiva or hard palate
- **Treatment:** None required
  - Traumatic/Apthous: symptomatic (mouthwash coating, cautery, severe with corticosteroids [lidex, betamethasone, etc])
  - Recurrent Herpetic: may treat with antiviral (e.g. Acyclovir, etc)
- **Med-evac:** No
Red and White Lesions

Geographic Tongue
- Color: White/Red
- Size: cm’s
- Shape: Wavy, Flat
- Texture: Soft
Geographic Tongue

- **Pain:** None
- **Duration:** Years
- **Characteristics:**
  - Alternating patterns of atrophic papillae (red and white)
  - Unknown causes, immune/hormone mediated
- **Treatment:** None
- **Med-evac:** No
Red and White Lesions

Candidiasis

- pseudomembranous - thrush
- angular cheilitis
- median rhomboid glossitis

Color: White/Red
Size: cm’s
Shape: Wavy, Flat
Texture: Soft
Candidiasis

- **Pain:** Burning
- **Duration:**
  - Normally post antibiotic treatment
  - Immunocompromised
  - Angular cheilitis (moist or traumatized angles of mouth)
- **Characteristics:**
  - Most common fungal infection
  - White, “curdled-milk” plaques that scrape off
  - Red erythematous areas
- **Treatment:** Antifungal (e.g. nystatin, clotrimazole troche, etc)
- **Med-evac:** No
Necrotizing Ulcerative Gingivitis
“Trench mouth”
NUG

- Pain: Yes
- Duration: Days
- Characteristics:
  - Punched out and ulcerated interdental papilla & severe gingivitis
  - More common in military service due to stress-related corticosteroids – immunosuppression
  - Up to 7% in military recruits
  - Other factors: smoking, poor oral hygiene, inadequate sleep, malnutrition
- Treatment: Remove bacterial challenge, peridex rinse, antibiotics in severe cases with lymphadenopathy/fever
- Med-evac: No
Red and White Lesions

Squamous cell carcinoma
SCC

- **Pain:** Generally non-painful
- **Duration:** Patient aware of site for 4-24 months prior to seeking treatment
- **Characteristics:**
  - 94% of oral cancers
  - Most common sites: lateral tongue, floor of mouth, lower lip
  - Vary from exophytic to endophytic, irregular rolled borders, often ulcerated, indurated (hard)
- **Treatment:** Biopsy $\rightarrow$ wide excision, radiation, chemo
- **Med-evac:** Evaluate with biopsy ASAP if lesion is not resolving
Color of Lesions

FROM MOST TO LEAST COMMON

BLUE AND BLACK
Blue/Black Lesions

Mucus retention “cyst”
Ranula
Mucocele / Ranula

- **Pain:** Yes, especially at meal time
- **Duration:** Days to years
- **Characteristics:**
  - Trauma disruption of salivary duct
  - Soft fluid filled (saliva)
  - **Ranula:** floor of mouth, can cause raising of the tongue and measure in the centimeters
- **Treatment:** Often self rupturing, but can recur
- **Med-evac:**
  - Recurrent mucoceles: treatment can be easily deferred
  - **Ranula:** sometimes airway a concern
Blue/Black Lesions

Amalgam tattoo

amalgam in bone
Amalgam Tattoo

- Pain: None
- Duration: Years
- Characteristics:
  - Staining of gingiva from impregnated amalgam
  - Differential with radiograph
- Treatment: None
- Med-evac: No
Blue/Black Lesions

Melanoma
Melanoma

- **Pain:** None
- **Duration:** Months to years
  - 45% 5-year survival rate for oral melanoma
- **Characteristics:** suspect ABCD
  - A: Asymmetry
  - B: Borders irregular
  - C: Color variation
  - D: Diameter greater than 6mm
  - Pigmented lesions in the mouth (not amalgam tattoos) → biopsy
- **Treatment:** Biopsy → large margin excision
- **Med-evac:** Refer
Color of Lesions

FROM MOST TO LEAST COMMON

YELLOW
Fordyce Granules
Fordyce Granules

- Pain: None
- Duration: Years
- Characteristics:
  - Multiple yellow/white accumulations of ectopic sebaceous glands
  - Lips, Buccal mucosa
- Treatment: Reassure
- Med-evac: No
Yellow Lesions

Superficial Abscess
Superficial Abscess

- **Pain:** Yes, from severe to mild
- **Duration:** Days to weeks (if draining)
- **Characteristics:**
  - Fluctuant abscess from non-vital tooth
  - Normally perforates the bone to the buccal
  - Frequently cause is obvious
    - Fractured/carious tooth
    - History of adjacent tooth with deep restoration
    - Periodontal Disease etiology may be less obvious
- **Treatment:**
  - I&D and [pulpectomy or extraction of infected tooth]
  - Antibiotics when definitive treatment unavailable
    - Pen VK 500mg QID, Clindamycin 300mg QID, others
- **Med-evac:**
  - Good when lesion is localized, treat ASAP
  - Spreading space infections need much more speedy definitive care (drains, IV antibiotics, etc)
Yellow

- Fordyce Granules
- Superficial Abscess
Refer Quickly-ish

- **Tooth Related**
  - Abcess
- **Non Tooth Related**
  - Ranula
  - Squamous Cell
  - Melanoma