ORAL MEDICINE OR DERMATOLOGY OF THE MOUTH: ORAL DISEASES BEYOND TEETH

Caroline Shiboski, DDS, PhD, Professor of Oral Medicine
Chair Department of Orofacial Sciences
UCSF

Oral Medicine Specialty

- Deals with diagnosis and management of diseases affecting the oral mucosa, salivary glands, and related oral structures
- Functions at interface of Dentistry and Medicine:
  - many systemic diseases manifest themselves in the mouth (e.g., HIV/AIDS and other immune deficiencies; Sjögren’s syndrome; blood dyscrasias)
- Oral Medicine specialists provide diagnostic and treatment services to a variety of hospital-based and outpatient clinical specialties:
  - e.g., oncology, rheumatology, endocrinology, infectious diseases, dermatology, and transplant medicine.

OM WORK-UP AND DIFFERENTIAL DIAGNOSIS

Outline

- Patient work-up (history and oral examination)
- Differential diagnosis
- Oral mucosal biopsy procedure
- Examples of clinical cases

ORAL MEDICINE PATIENT WORK-UP

Elements

- Chief complaint
- History of present illness
- Medical history + vital signs
- Social history
- Family history
- Dental history
- Examination (extra-oral; intra-oral)
- Impression (differential diagnosis)
- Plan and treatment rendered
ORAL MEDICINE PATIENT WORK-UP

Chief complaint (CC)
- Record reason for visit, who is referring the patient, and symptoms described by patient
- Examples:
  - CC: 45 year-old man referred by dentist for evaluation of white lesion on tongue. Asymptomatic
  - CC: 72 year-old woman referred by physician for evaluation of painful mass on palate
  - CC: 55 year-old woman self-referred due to burning tongue and lips

History of present illness (HxPI)
- Record
  - Duration of signs and symptoms
  - Any change since condition appeared
  - Prior treatment(s) attempted and potential response
- Example (CC of asymptomatic white lesion on tongue)
  - 3 months duration
  - No change in size or appearance
  - Antifungal prescribed by dentist: no response

Medical history (MHx) + vital signs (VS)
- Review medical history form filled out by patient and ask about past or current systemic conditions
- Record all current medications
- Record any known allergies
- Record vital signs (VS): blood pressure (BP); Pulse (P); Temperature (T)
**ORAL MEDICINE PATIENT WORK-UP**  
Social history (SocHx)

- Record history of smoking (cigarette; cigar; pipe)
  - Current or past
  - Pack-year history (multiply # years by # packs/d)
  - Number of years since quit
- Record past or current history of recreational drug use
- Record past or current history of alcohol consumption (e.g., # glasses wine/d or wk)

**ORAL MEDICINE PATIENT WORK-UP**  
Family history (FamHx)

- Record if parents alive; if not, record cause of death
- Record any chronic diseases in family (e.g., heart disease; diabetes; cancer)

**ORAL MEDICINE PATIENT WORK-UP**  
Dental history (DentHx)

- Record if patient receives regular dental care
- When was last dental visit? Procedure?

**ORAL MEDICINE PATIENT WORK-UP**  
Oral examination (EOE and IOE)

- Extra-oral examination (EOE)
  - Palpate neck and submandibular area, and record any lymphadenopathy and any facial swelling or asymmetry
- Intra-oral examination (IOE)
  - Describe what you see (color, character, size, location of lesion)
EXTRA-ORAL AND INTRA-ORAL EXAMINATION, AND REVIEW OF NORMAL STRUCTURES

ORAL EXAMINATION TECHNIQUE AND REVIEW OF NORMAL STRUCTURES

- Always follow same sequence for examination:
  - Face (contour; look for any asymmetry, parotid swelling) and palpate neck and submandibular region
  - Lips (contour; commissures)
  - Lower and upper labial mucosa and anterior vestibule
  - Right and left buccal mucosa and posterior vestibule
  - Hard and soft palate
  - Tongue: dorsum, lateral borders (pull with gauze to see posterior aspect/foliate papillae), ventral surface
  - Floor of mouth
  - Gingival tissue
Examine facial contour, looking for enlargement of the parotid glands.

Parotid gland upper limit (upper border of auricular orifice)

Parotid gland lower limit (angle of mandible)

Examine lips (contour; commissures)

Commissure
Lip vermilion
Vermillion border

Labial frenum
Lower anterior vestibule

Examine lower labial mucosa and vestibule
Note the lumpy texture in labial mucosa due to the minor salivary glands
Examine upper labial mucosa and vestibule

Upper anterior vestibule

Labial frenum

Upper right posterior vestibule

Lower left posterior vestibule

Examine buccal mucosa and posterior vestibule, bilaterally

Stenson’s duct

Hard palate

Soft palate

Examine hard and soft palate

Hard palate

Soft palate
Examine dorsum of tongue

- Filliform papillae
- Fungiform papillae (contain taste buds)

Examine lateral border of tongue, bilaterally. A 2x2 gauze may be used to pull the tongue for better visualization

Note foliate papillae (lymphoid tissue) on posterior aspect

Soft palate
Uvula
Fauces
Palatoglossal arch
Examine ventral tongue

Note abundance of blood vessels

Examine the floor of mouth

Examine gingiva: upper & lower; anterior & posterior
Note the contrast between gingiva and adjacent mucosa

Do not forget to examine lingual aspect of gingiva
COMMON ORAL CONDITIONS WITHOUT CLINICAL SIGNIFICANCE

- **Scalloped tongue and pronounced linea alba:** Occur in patients who clench their teeth
- **Geographic tongue** (with or without fissuring): Presents as depapillated (bold) areas with white rim usually on dorsum and lateral tongue. These areas change location over time (also termed stomatitis migrans)
- **Elongated filiform papillae:** May occur in patients with dry mouth or on certain medications. The tongue appears "coated". A brown or black stain, from coffee/tea, can appear on elongated filiform papillae and lead to “black hairy tongue”

**COMMON ORAL CONDITIONS WITHOUT CLINICAL SIGNIFICANCE**

- **Fordyce granules:** Ectopic sebaceous glands usually on buccal mucosa
- **Leukodema:** A white film on buccal mucosa that disappears when mucosa is stretched
- **Exostosis:** Bony protuberance on palate (called torus if located on midline) or on lingual or buccal aspect of mandible
Linea alba
Pronounced linea alba in a person who clenches her teeth

Geographic tongue: note depapillated (bald) areas with white rim
Patient will report having condition for many years, and that "bald" areas change location over time (condition also called stomatitis migrans)

Mildly geographic tongue

Geographic tongue with fissuring
Fissures
Elongated filiform papillae ("coated tongue")
Black hairy tongue seen on posterior aspect

Leukodema: note that white film will disappear when mucosa is stretched

Fordyce granules are small sebaceous glands
Exostoses on lateral palate (idiopathic bony protuberances)
Palatal torus
Exostosis on buccal aspect of posterior mandible (Bony protuberance)

Lingual exostoses

DIFFERENTIAL DIAGNOSIS

ORAL MEDICINE PATIENT WORK-UP
Differential diagnosis (DDx) - Plan / Tx

- Differential diagnosis or clinical Impression
  - Should fit both history and clinical signs/symptoms
  - One or several diagnoses may be appropriate
- Plan / Treatment rendered
  - Radiographs?
  - Biopsy?
  - Medications prescribed?
  - Follow-up visits?

Frictional keratosis
Leukoplakia
Lichen planus
Hairy leukoplakia
Differential Diagnosis Example

- CC: 60 year-old man referred by physician for evaluation of non-healing painful ulcer
- HxPI:
  - Ulcer present for 2 months
  - No change in size or pain
  - No prior tx
- MedHx:
  - Good general health
  - No current meds; No known allergies
  - V.S: BP=128/100; P=54; T=97.1
- SocHx:
  - 45 pack-year history of smoking
  - Drinks 1-2 martinis/day
- Dental Hx: Has not seen a dentist in 30 years (severely dental phobic)
CC: 39 year-old woman with CC of non-healing ulcer, and severe pain extending to posterior tongue and throat

HxPI:
- 4 months duration
- Pain has increased since onset
- Previously seen by ENT who prescribed antifungal then acyclovir with no response

MedHx: Good general health / No current meds / NKA

SocHx: No hx of smoking/drinking; Non-immunosuppressed

DentHx: Regular care

Differential Diagnosis Example

No obvious intra-oral source of trauma
Diagnostic procedure?
Biopsy revealed a squamous cell carcinoma
ORAL MUCOSA BIOPSY AND BIOPSY EXAMINATION REQUEST WRITE-UP
Clinical Cases
(will be presented during session)