Oral Dermatology: Common Findings Approach to Diagnosis, Differential Diagnosis and Treatment

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Private practice
Conflict of Interest

• I have no conflicts of interest to report
• I may discuss off label use of medications
• The medications and treatment suggestions mentioned in this talk are based on my current use patterns or on the review of the literature
• Other treatment options may be available
Learning Objectives

Following this talk, the attendees will be able to:

• Identify common oral findings, oral lesions, primary skin diseases as well as systemic disorders

• Discuss the differential diagnosis of red and white oral lesions and the approach to obtaining a diagnosis

• Describe therapeutic options for the management of erosive oral disorders
Complete Oral Exam Is A Subset Of The Mucocutaneous Exam*

- Oral cavity
- Skin, hair, nails
- Other mucous membranes ie conjunctiva, esophagus, larynx, otic
- Vulva
- Vaginal → with speculum; wet mount
- Proper positioning and visualization
- Patient participation (use of mirror)

* Often requires consultation referral
Multidisciplinary Team

- Nurse practitioner
- Physician assistant
- Primary physician
- Gynecologist
- Dentist
- Ophthalmologist
- Gastroenterologist
- Urologist
- Psychologist
- Sex therapist
- Physical therapist
- Marriage counselor
- Others
Routine Oral Examination
Extraoral: Head & Neck

- Face, eyes & nose
- Lymph nodes
- Thyroid gland
- Major salivary glands
- Lips & angles of the mouth
Approach to the Patient; NOT

- Patient’s head is not stable
- Physician is not in comfortable position
- Lighting may be too bright
- Tongue blade
- No gauze
- Not using gloves!!!!

Courtesy of WWW
The Physical Examination

- Recline patient at <45°
- Adequate lighting
  - Overhead or head light; not a flashlight
  - Avoid using a tongue depressor
  - Remove oral appliances, glasses, gum, candy, etc
- Access
  - Microstomia, gag reflex, hemostasis
- Always practice universal precautions!
Pitfalls of the Oral Examination

- Moisture alters the appearance of lesions
- Use a piece of gauze to:
  - dry off the mucosa
  - retract the tongue and lips
- Minor trauma alters the primary morphology
- Limited number of reaction patterns
Oral Cavity

- Mucosa is thin; Saliva is critical to health
- Oral → Necessary for ADL i.e. eating, drinking, speaking
  - Stimulate saliva
  - Dilutes concentration of topical medications
  - Decreases contact time
  - Much psychosocial implications; “baggage”
Lips

• Inspect
• Retract
• Palpate
Gingiva

• Scalloped
• Interdental Papillae - pointy
Buccal Mucosa

• Stensen’s Duct (Parotid Gland)
  • Clear aqueous saliva
  • Buccal bite line
  • Across from M²
• Horizontal bite line
Hard Palate and Maxillary Arch
Inspect and Palpate

Incisive papilla
Torus palatinus
Rugae
Minor salivary gland ducts
Oropharynx

- Uvula
- Palatoglossus fold
- Palatine tonsil
- Palatopharyngeal fold
- Waldeyer’s Ring
Lingual Tonsil
Waldeyer’s Ring

• Mucosal lymphatic tissues (MALT) of nasopharynx and oropharynx
  – Palatine tonsils (lateral oropharynx)
  – Nasopharyngeal / Adenoids (posterior to)
  – Tubal tonsils (nasopharynx)
  – Lingual tonsils (dorsal tongue)
Tongue

- Dorsal
  - Fungiform papillae (mushroom-like) erythematous or pigmented
  - Filiform papillae (hair-like) white or acquired exogenous pigment
  - Circumvallate Papillae

- Ventral
  - Smooth and thin mucosa
  - Ventral vein
  - Fimbria (NO known function)

- Floor of mouth Most common site of oral cancer
  - Visual examination requires retraction of the tongue
  - Palpation - bimanual examination
Variants and Findings

Hooker’s Lips Psychotria
Fordyce Spots (Condition)

- Minute yellow papules
- Incidence > with age
- Ectopic sebaceous glands
- Unassociated with hair follicles
Geographic Tongue

- Well circumscribed, circinate plaques
- Asymptomatic --> burning and itching
- Dorsal tongue > ventral tongue > other mucosal surfaces
- Raised white border (elongated filiform papillae)
- Loss of filiform & fungiform papillae
Geographic Tongue
Benign Migratory Glossitis

• Unknown etiology
• Move daily or weekly
• Differential diagnosis: erosive lichen planus, coated tongue, burn, aphthous stomatitis
• Therapy: Supportive, topical corticosteroids
Mucocele (Retention Cyst)

- Obstruction of salivary glands
- Asymptomatic swelling
- Translucent papule
- Myxoid exudate
- Recurrent
- Treatment --> marsupialization
Ranula

- Large, bluish mass
- Mucocele in floor of mouth
- May plunge through mylohyoid muscle into the neck
- May be life threatening !!!!!
Melkersson Rosenthal (Granulomatous Cheilitis)

- Classic triad
- Recurrent orofacial swelling (1 or 2 lips)
- Facial paralysis
- Fissured tongue
- Histology is diagnostic: small noncaseating granulomas
Stomatitis Nicotina
(smokers keratosis, smokers patches)

• On the hard palate
• Pipes/cigars > cigarettes
• Characteristic erythematous umbilicated papules
• Caused by tars and heat in tobacco smoke
• Hyperkeratosis / acanthosis of epithelium; inflammation of submucosa and minor salivary glands; squamous metaplasia of ducts
• Not premalignant but an opportunity to discuss risk of oropharyngeal CA
White Plaques on Oral Mucosa
Differential Diagnosis

• Poor oral hygiene
• Morsicatio buccarum et labiorum
• Pseudomembranous candidosis
• Recurrent aphthous ulcers*
• Oral hairy leukoplakia
• Viral enanthem
• Lichen planus

* Often both red and white
Mononucleosis - Enanthenm

- Epstein-Barr virus
- Prodrome of headache, malaise, fever and pharyngitis
- Incubation 33-49 days
- Exanthenm occurs in 35% patients
- Accompanying Strep pharyngitis in 20-25%

Morsicatio Buccarum et Labiorum (Chronic Nibbling of Cheeks and Lips)

- Physical reaction to chronic trauma
- Frequently symmetric
- Thickened shredded red and white areas
- May peel off
- Treatment: patient education, acrylic shield or OCD regimen
Aphthous Ulcers (RAU, RAS)

- Single or multiple
- Painful oval ulcers
- White gray fibrinous pseudomembrane
- Red border
- Prodrome +/-
- No blisters
Aphthous Ulcers (RAU, RAS)
Epidemiology

• Most common cause oral ulcers
• RAU affects 5-66% of the population in US
• 40% of selected groups of children have a history of RAU ulcers < 5 years of age
• 60% of professional students (dental and medical)
• Recurrences decrease with advanced age
• Recurrences increase with immunosuppression or after smoking cessation
Recurrent Aphthous Ulcers
Clinical Presentation

- Three forms (minor, major and herpetiform)
- Minor (Mikulicz)
  - Most common (85%)
  - Single or multiple
  - Discrete round or oval
  - < 1 cm
  - Heal without scarring in 7-14 days
Aphthous Ulcers
Major (Sutton)

- Single >> multiple
- 10%
- Round or oval
- Soft palate, lips, oropharynx
- 2 -3 cm
- Heal with scarring
- Heal in 6 weeks to months
- More common in HIV
Aphthous Ulcers
Herpetiform

- Rarest; resemble HSV
- <5%
- Grouped
- 1-2 mm
- Crops of 10-100
- Unkeratinized; rarely keratinized mucosa
- Heal in 7-14 days
- Do not scar
Conditions Associated With Oral Aphthae

- Stress
- Trauma: biting, dental appliances, brushing
- Xerostomia (40% have hypofunction - Dr. Zunt)
- Smoking cessation
- Endocrine factors (decrease progesterone in luteal phase; ulcers regress in pregnancy
- Food allergies
- Sodium lauryl sulphate (detergent used as emulsifier & surface cleanser)
- Drugs: Vioxx, Zoloft, Remeron, Feverfew, xerostomic agents, alendronate and many others
Systemic Conditions Associated With Aphthous Ulcers 1/2

• Hematinic deficiency (up to 20%)
• Iron, vitamin B12, folate and rarely vitamin B-1, B-2, and B-6
• GI Malabsorption (3%)
• Celiac disease, dermatitis herpetiformis and gluten-sensitive enteropathy (HLA DRW10 and DQW1), Crohn disease, pernicious anemia
Systemic Conditions Associated With Aphthous Ulcers 2/2

- Systemic lupus erythematosus
- HIV
- Behçet
- Trisomy 8, myelodysplasia
- Cyclic neutropenia
- PFAPA (periodic fever, aphthae, pharyngitis, adenitis)
- MAGIC (mouth and genital ulcers with inflamed cartilage)
Clinical and Laboratory Workup

- No specific tests available; so exclude other disorders
- Medical history
- Comprehensive hematologic evaluation
  - Complete blood cell count
  - Serum iron, ferritin levels, total iron binding capacity
  - Folate Vitamin B$_{12}$, Vitamin B$_1$, Vitamin B$_2$, Vitamin B$_6$
  - Weekly CBC x 5
  - Serum anti endomysium antibody and transglutaminase assay (positive in celiac disease)
  - Bone marrow biopsy
Histology of RAU

- Biopsy and culture to exclude infection
- Biopsy shows a non-specific neutrophilic vascular reaction
- Leukocytoclastic vasculitis
- IF is negative
Recurrent Aphthous Ulcers

Treatment

• Begin with topical steroids
• Ointments or gels for lesions in anterior 1/3 of the mouth
• Elixirs for ulcers on pharynx or soft palate
• Eliminate sodium lauryl sulfate (detergent used as emulsifier & surface cleanser) in tooth pastes and mouth rinses
  – Biotin original plain white
  – Rembrandt all natural SLS free
  – Oragel SLS free
Recurrent Aphthous Ulcers
Topical Therapy

• Triamcinolone acetonide 0.1% gel or ointment
  Fluocinonide 0.05% gel or ointment
  Clobetasol 0.05% gel or ointment
• 30 – 60 gm
• Apply a thin film to affected areas QID
  and leave in place for 30 minutes
• NPO 30-60 minutes
Dexamethasone
(Decadron, Dexaseon)

• Dexamethasone elixir 0.5 mg/5 mL
  (high potency, substituted, fluorinated)
• 5 ml QID
• Swish for 5-10 min and expectorate 5 mL QID
  NPO for 30 min after each dose
• Contact time important for maximizing efficacy;
  expectorate to limit systemic adverse effects -
  Cushing syndrome, reversible HPA-axis
  suppression, hyperglycemia, and glycosuria
Antibiotic Rinses

- Doxycycline 100 mg capsule dissolved in 100 mL H2O
  15 mL Rinse mouth x 5-10 minutes QID
  Pregnancy D Avoid < 8 years; Photosensitivity;
  Reduce dose in renal impairment; Fanconi -like syndrome may occur with outdated 'cycline

- Chlorhexididine gluconate oral rinse, 0.12% (PerioGard, Peridex) 15 mL swish/spit BID Staining & calculus;
  Apply with a Q-tip 11.6% alcohol, saccharin, and mint

- Reduces the severity and pain of ulceration; Not frequency
Coating Agents

• Zilactin-B (OTC) Apply to affected area QID
  Contains adhesive gel, 10% benzocaine; tannic, boric and salicylic acids; benzyl alcohol
  Zila Pharmaceuticals: (800) 922-7887

• Sucralfate Suspension (an aluminum salt of sucrose octa sulfate) 5 ml QID
  Statistically significant improvement in frequency, healing time, and pain scores associated with oral ulcers of Behçet's disease
Topical Medications
Anesthetic and Antiinflammatory

- Xylocaine 2% viscous (Lidocaine)
  - 100 ml
  - Swish and expectorate 5 ml 5 minutes prior to eating TID-QID
  - Risk of aspiration due to loss gag reflex
- Amlexanox (Aphthasol) oral paste 5%
  - 5 gm
  - Apply ¼ inch strip to mucosal ulcers QID (after meals and HS)
  - Wash hands immediately after applying paste. Burning, transient pain, contact mucositis
  - Reassess if not improved after 10 days
Topical Therapy

• Orabase (OTC)
• 7.5 g
• Apply to affected area BID
• Orabase is often used as a base for topical steroid creams due to its adherence to mucosal surface
• Contains gelatin, pectin, and sodium carboxymethylcellulose in polyethylene and mineral oil gel
• Gritty, odorless and tasteless, nonirritating
• Harmless if swallowed
Recurrent Aphthous Stomatitis

Systemic Medications

- Prednisone 5 mg, 10 mg, 20 mg tablets
  - Dependent on diagnosis and clinical judgment
  - 1 mg per kg q am and taper to 5 mg QOD as needed
  - Time needed to treat will vary on underlying disease
    - weeks (aphthae)
    - months (pemphigus vulgaris / cicatricial pemphigoid)

- Pentoxifylline (Trental) 400 mg tablets
  - 90 tablets (Therapeutic trial > 30 days)
  - TID with food
Recurrent Aphthous Ulcers

Systemic Medications

- Colchicine 0.6 mg tablet
  - 30 tabs (with one refill)
  - 1 tablet po BID to TID
  - Start at BID to minimize GI effects
  Use in combination with topical and systemic corticosteroids.

*Adverse effects*: diarrhea, neutropenia, male infertility

*Contraindications*: renal, GI, cardiac or hematologic disorders
Recurrent Aphthous Ulcers
Systemic Medications

- Thalidomide (Thalomid) 50, 100, 200 mg
  - 200 mg PO QD for 4 weeks
    (gradually increase dose due to sedation)
  - Restricted access in US
    1-888-423-5436 or
    FDA approved for HIV associated RAU
    Off-label use has documented a 55% cure rate
    compared to 7% in control patients
- Somnolence, dizziness, constipation, peripheral neuropathy
- Teratogenic Pregnancy X

NEJM 1997; 336:1487-1493
Candidiasis

- Common yeast organism
- Normal oral flora
- *Candidiasis* encompasses mucosal and cutaneous conditions
- Oral manifestations: acute or chronic with variable degrees of severity
- Tenderness, burning, dry mouth, thick tongue, pain with swallowing (dysphagia)
Candidiasis
Clinical Presentations

• Thrush / pseudomembranous
  • removable, white, plaques on a red base
  • buccal mucosa, tongue, esophagus
• Erythematous candidiasis
  • red thinned mucosa
  • dorsal tongue and palate
• Angular cheilitis
  • Ill fitting dentures --> overclosure --> saliva pooling in the corners of the mouth
• Hypertrophic / median rhomboid glossitis
  • Red and white patches or plaques on dorsal tongue
Pseudomembranous Candidiasis

• White plaques on buccal mucosa, tongue, palate
• Sore mouth
• Swollen lips
• Dry cottony mouth
• Removable
Candidiasis

• Predisposing factors
  • Newborns (sterile gut at birth)
  • Steroids: topical and systemic
  • Antibiotics
  • Diabetes
  • Immunosuppression: chemotherapy, AIDS
  • Dentures, partials, appliances
Median Rhomboid Glossitis

- Shiny oval or diamond shaped elevation, midline, directly in front of the circumvallate papillae.
- *Candida* species may be present
- Histology: Chronic inflammation with fibrosis with occasional hyphae in areas of parakeratosis
- Systemic antifungals helpful
Candidiasis
Topical Treatment*

• Clotrimazole troches (10 mg)
  1 po 5x/d x 2 wks
  Pitfalls: High sugar content → high caries potential xerostomia; diabetic patients)

• Clotrimazole vaginal tab
  dissolve 1 po qhs x 5-7 d
  Pitfalls: taste is “disgusting”

• Nystatin oral suspension 600,000 U
  swab mouth QID

* Rarely effective
Candidiasis
Systemic Treatment

- Diflucan® (fluconazole) 100 mg
  ii po stat then i po qd x 5 d; then i po M,TH
- Pitfalls: Dentures and appliances
  Soak in dilute bleach solutions
  (1 t/C water) BID
- Renal dosing (CrCl<50: give usual loading
dose x1, then decrease by 50 %)
Clinical Case

• Elderly man
• Prior hx of lung cancer
• Presented for routine oral examination
• Oral examination reported to be “WNL”
Clinical Case

- Clinical Case: 34 Year Old Male with Fever, A Rash and Acute Enanthem
- D/Dx: Drug reaction, variety of viral illnesses, secondary syphilis, meningococccemia, rickettsial diseases
- Dx → Acute HIV Seroconversion
Acute HIV Seroconversion

- Fever (38.9°F), malaise, sore throat, GI distress
- Generalized adenitis, night sweats
- Exanthem: within 1-2 days on trunk and face, morbilliform eruption or hemorrhagic macules
- Enanthem: erythema, ulcerations & candida
- Leukopenia, CSF lymphocytic pleocytosis, transient thrombocytopenia and lymphopenia
Diagnosis of Acute HIV Seroconversion

- History of high risk exposure
- Incubation period 3-6 weeks (< hematogenous transmission or large viral inoculum)
- Documentation of laboratory seroconversion
- Circulating p24 antibodies
- D/Dx: Drug reaction, other viral illness, secondary syphilis, meningococccemia, rickettsial diseases
Summary

• Oral exam is an integral aspect of the clinical and dermatologic evaluation
• Benign and malignant lesions easily visualized
• Findings reflect wide differential including local and systemic processes
• Now you have knowledge and tools to diagnose and treat these complex patients
• Success is possible and very much achievable
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Treatment Of Mucosal Disorders

- Goal: Maximize success and limit obstacles
- Schedule adequate time
- Remain non-judgmental and supportive
- Obtain a definitive diagnosis
- Avoid telephone diagnoses
  - Reexamine patient
  - Obtain cultures
  - Biopsy
- Treat one condition at a time
Approach to the Patient
What to do after the examination

• Communicate effectively with the patient
• Position the patient and yourself comfortably throughout the examination
• Have patient sit up, return glasses, clothing and any oral appliances before discussing your findings and treatment options
Approach to the Patient

• Identify potential etiologies and exacerbating factors
  • Medical history and review of systems
  • Identify extent of involvement and impact
  • Treat and eliminate confounding conditions
  • Identify potential local or systemic irritants
    • Medications both prescription and OTC
    • Allergies
    • Personal hygiene regimens
    • Habits