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

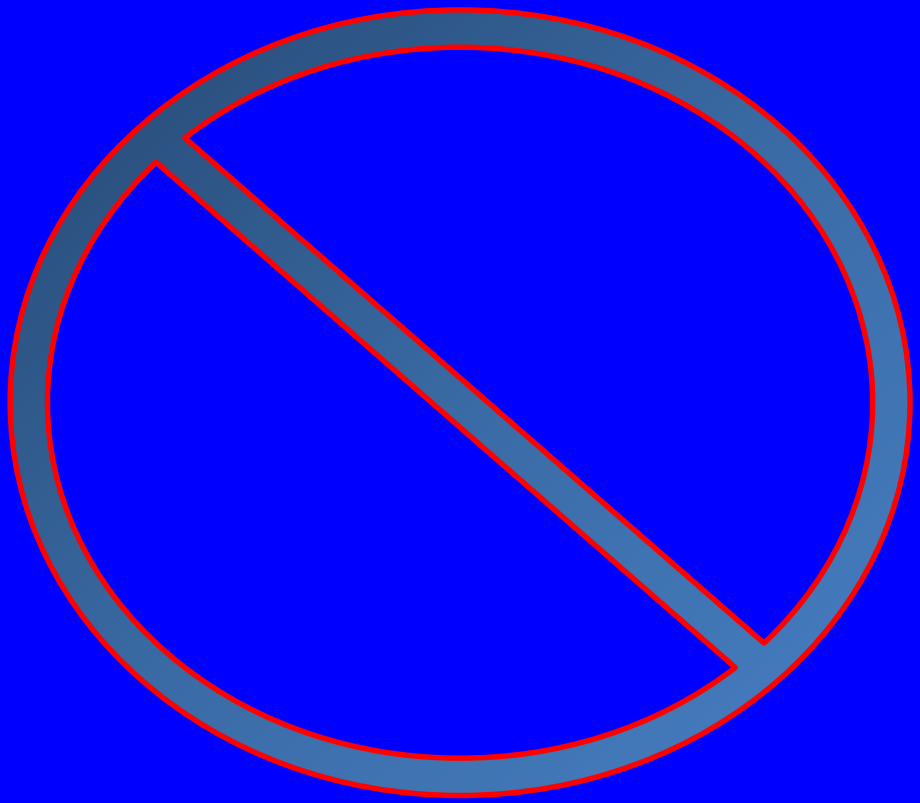
Multidisciplinary Team

- 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 M^2
- 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

Clinical Challenges

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 - Enanthem

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

Rimsza et al: Pediatr Clin North Am 2005

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 ag
- 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 B6
  - 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, Dexasone)

- 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
- Chlorhexidine 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, meningococcemia, rickettsial diseases

- Dx → Acute HIV Seroconversion

Acute HIV Seroconversion

- Fever (38.9ºF), 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 thrombopenia 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, meningococcemia, 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