

Red, White, & Ulcerative Lesions of the Oral Cavity

What are they? How to treat?

My Approach to Diagnosing and Treating Oral Mucosal Diseases

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DISCLOSURES

NONE!

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Goals

-  Recognize the most common oral ulcers, their etiology and their treatment
-  Understand the local and systemic factors which contribute to oral candidiasis
-  Develop a differential diagnosis for lichenoid lesions of the oral cavity
-  Sometimes you must think of the "zebras"

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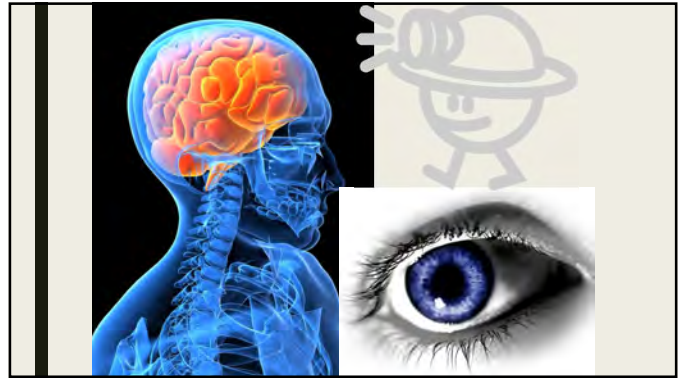
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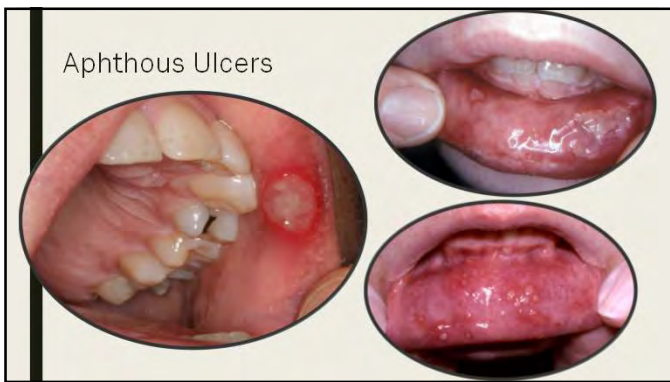
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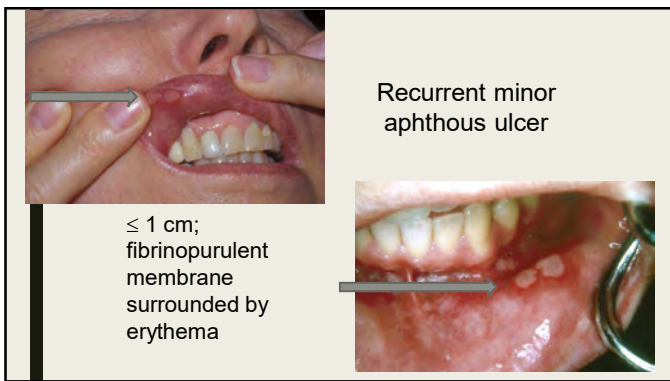


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Aphthous Ulcers

- Most common in younger patients
- Peak onset of 10 and 29 years
- Genetic component: up to 40% of patient have a family history

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Aphthous Ulcers

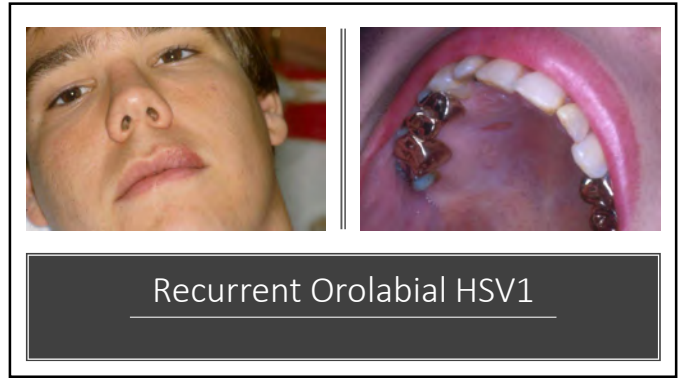
Etiology

- Decrease in the mucosal barrier: trauma, braces
- Increase in antigenic exposure: foods, flavoring agents
- Primary immunodysregulation: Stress, Crohn disease, celiac disease

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Recurrent HSV-1

Reactivation of the virus can be triggered by GI upsets, stress, menses, solar radiation, extreme cold, or other infections.

Recurrent lesions are less severe than the primary infection.

Recurrent lesions present with a burning sensation, erythema of the affected area, vesiculation, ulceration and crust formation

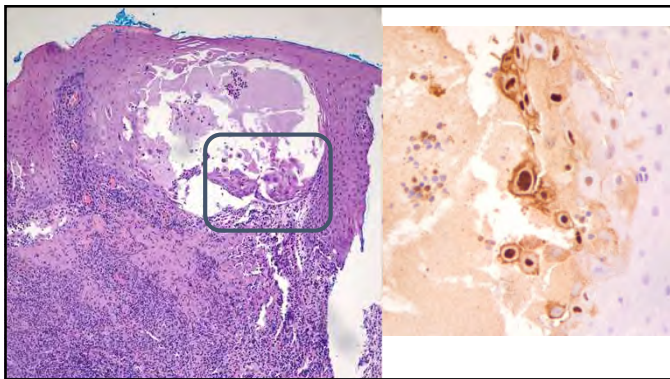


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Recurrent HSV1

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Aphthous Ulcer vs HSV


Prodrome	sometimes	usually
Duration	10-14 days	10-14 days
Location	Nonkeratinized - buccal mucosa, ventral tongue, soft palate	Keratinized - gingiva, lip, hard palate

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Treatment for Aphthae

Treatment is primarily aimed at pain relief and promotion of healing

Therapies are principally palliative, and none result in permanent remission




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Treatment for Aphthae

Topical steroids – either rinse or cream/gel

Systemic steroid – good for multiple lesions or those in the oropharynx

Bloodwork




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Aphthae Treatment

Dexamethasone elixir 0.5 mg/5ml
 Dispense 500 ml
 Sig: 1 tsp QID; hold for 3 mins, spit out, no food or liquid for 30 mins

2X stronger but must be compounded; \$\$:

Triamcinolone acetonide 0.2% aqueous suspension



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Aphthae Treatment

For easy to reach spots like lips can use a topical steroid such as Lidex gel or cream or more potent steroid like Clobetasol.

Rx: fluocinonide 0.05% or Clobetasol 0.05% gel or cream

Disp: 30 gm

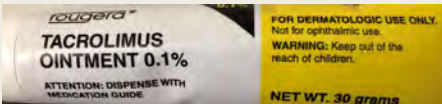
Sig: Apply to affected area*** BID - QID (depends on severity)



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Tacrolimus in distilled water 0.1mg/100mL
 Disp. 500mL
 Sig. Rinse with 1tsp of solution for 2 minutes expectorate rinse qid

Tacrolimus (Protopic) ointment 0.1%
 Disp. 30g tube
 Sig. Rub into affected area tid.




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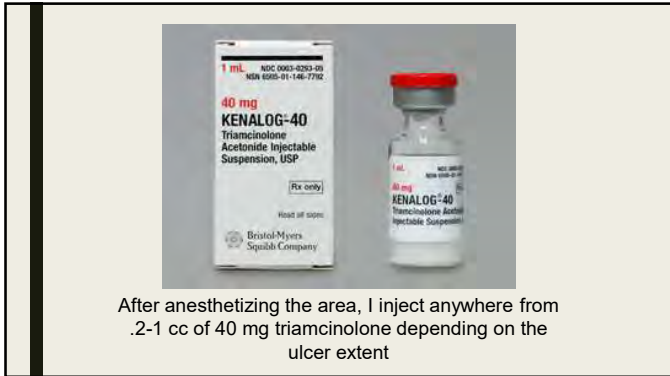
Treatment for Aphthae

Intralesional steroid injection-about 0.3-0.5 cc of 40mg/cc triamcinolone diacetate

Major aphthous ulcer can last for many weeks and heal with scarring



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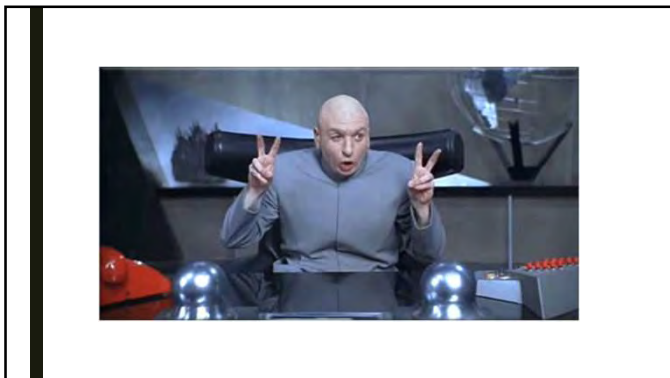


After anesthetizing the area, I inject anywhere from .2-1 cc of 40 mg triamcinolone depending on the ulcer extent

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Treatment For
Recurrent HSV1
Infection

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Treatment:
Recurrent HSV1 Infection

Topical
RX: Acyclovir 5% ointment (Zovirax)
Disp: 15 gm
Sig: Apply hourly @ onset of symptoms
RX: Pencyclovir 1% cream (Denavir)
Disp: 2 gm
Sig: Apply q2 hrs during waking hrs for 4 days @ onset of symptoms



Topical creams much less effective and are \$\$\$

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Recurrent HSV1 Treatment

Systemic
RX: Valacyclovir 1 gm (Valtrex)
Disp: 4 caplets
Sig: Take 2 caps at prodrome and 2 caps 12h later

Warning: Use with caution in patients with renal disease; has not been studied in children <12 years of age
In Children:
Acyclovir 400 mg p.o. 5 times/day × 5 days

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Recurrent HSV1 Treatment

Systemic
RX: Famciclovir 500 mg (Famvir)
Disp: 3 tablets
Sig: 3 tablets at first sign of symptoms

Best taken within 48 hours of symptom onset

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At sick call appointment in the dental clinic, he was told to "brush his teeth with his finger" since a toothbrush was too painful.



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Primary Herpetic Gingivostomatitis

- In the US, 60-85% of adults by age 60 have antibodies to HSV-1.
- Highest incidence of HSV-1 occurs in children aged 6 months to 3 years.
- 99% of affected individuals undergo a subclinical infection - in children may be confused with eruption gingivitis
- 1% of individuals develop full-blown primary herpetic gingivostomatitis: ↑ temp, regional lymphadenopathy, difficulty eating

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Primary Herpetic Gingivostomatitis



- 1° lesions are highly infectious including the saliva
- 1° infection lasts up to 2 weeks
- After the initial infection the virus goes into latency

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****Primary HSV1 Can Occur on Both Keratinized and Nonkeratinized Mucosa****



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Remember – Adults can get primary HSV1 gingivostomatitis!!!



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Treatment for Primary HSV-1



RX: Children

Acyclovir 400 mg

Disp: 32 capsules

Sig: 2 capsules tid for the first 3 days then 1 capsule bid for 7 days

RX:

Famvir 500 mg

Disp: 20 tablets

Sig: 1 tablet bid for 10 days

Only effective if started within 72 hours of symptom onset

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Warning!!

Sex and Oral Pathology

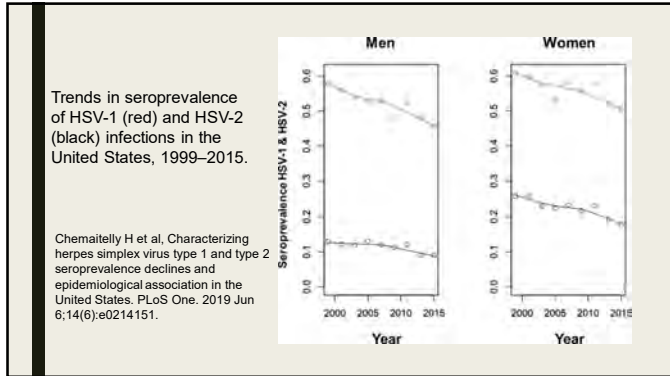


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HSV1 and Genital Herpes: WHAT???!!!

- HSV-1 and HSV-2 seroprevalences show a strong declining trend for at least two decades, for both sexes and for the different ethnicities, possibly reflecting improvements in hygiene and living conditions (for HSV-1), and safer sexual behavior (for HSV-2).

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HSV1 and Genital Herpes: WHAT???!?

- HSV-1 can be transmitted to the genital area through oral-genital contact to cause genital herpes.
- HSV-1 can be transmitted from oral or skin surfaces that appear normal and when there are no symptoms present. However, the greatest risk of transmission is when there are active sores.
- Individuals who already have HSV-1 oral herpes infection are unlikely to be subsequently infected with HSV-1 in the genital area.

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Chronic Mucocutaneous Herpes: Lasting > 1 month Associated with immunosuppression

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Erythema Multiforme

EM is a hypersensitivity reaction

Several causes are known to precipitate the condition: bacterial and viral infections, radiation therapy, and drugs

Most frequently HSV infection may precede EM by 1-3 weeks

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Erythema Multiforme

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Herpes Zoster - AKA Shingles


- ▶ Reactivation of the chickenpox virus
- ▶ About 1 million cases/year in USA
- ▶ Active lesions caused by HSV zoster can spread VZV infection to individuals not vaccinated against chickenpox

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Herpes Zoster

Prodrome:
Headache, photophobia, malaise, fever, abnormal skin sensations and pain

Rash:
Unilateral, involving 1-3 adjacent dermatomes
Thoracic, cervical, ophthalmic involvement most common
Initially erythematous, maculopapular
Vesicles form over several days, then crust over
Full resolution in 2-4 weeks




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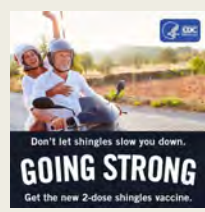
Complications of Herpes Zoster

- Postherpetic Neuralgia
 - Pain \geq 30 days occurs in 18-30% of zoster cases
 - Mild to excruciating pain after resolution of rash
 - Constant, intermittent, or triggered by trivial stimuli
 - May persist weeks, months or occasionally years



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Herpes Zoster Prevention

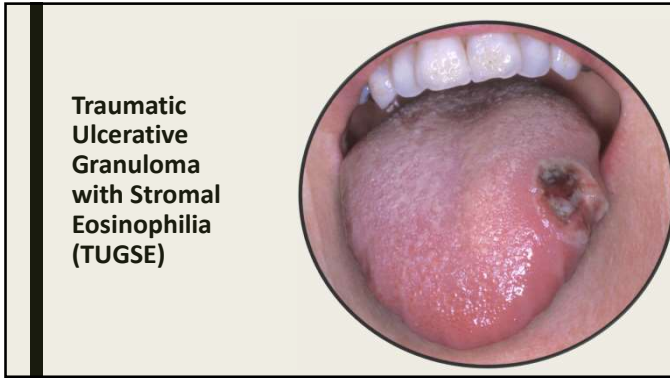


Shingles vaccination is the only way to protect against shingles and [postherpetic neuralgia](#), the most common complication from shingles. CDC recommends that healthy adults 50 years and older get two doses of the shingles vaccine called Shingrix (recombinant zoster vaccine), separated by 2 to 6 months, to prevent shingles and the complications from the disease

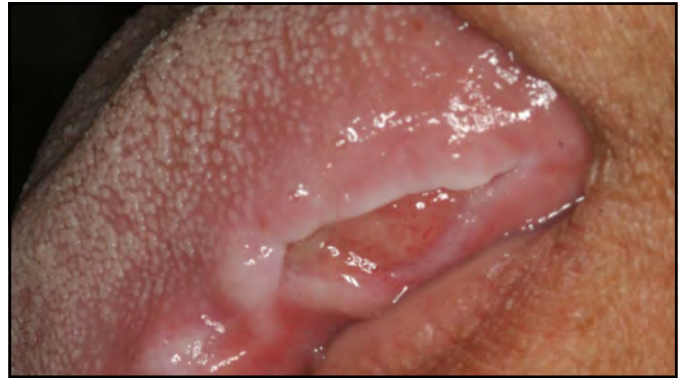
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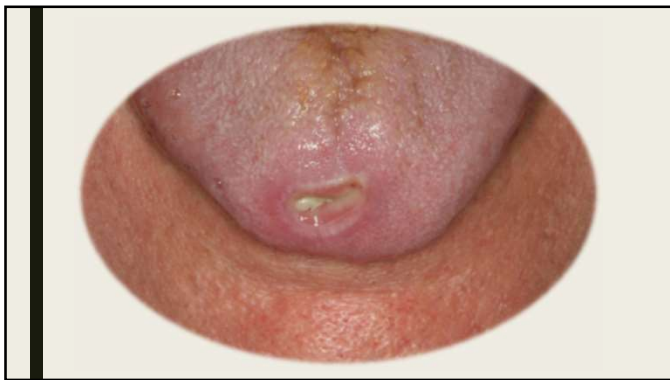
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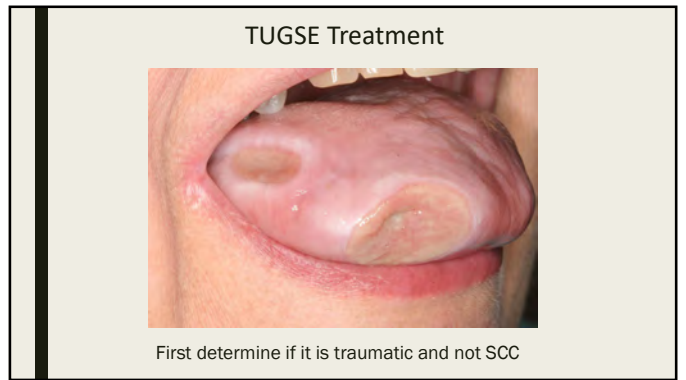
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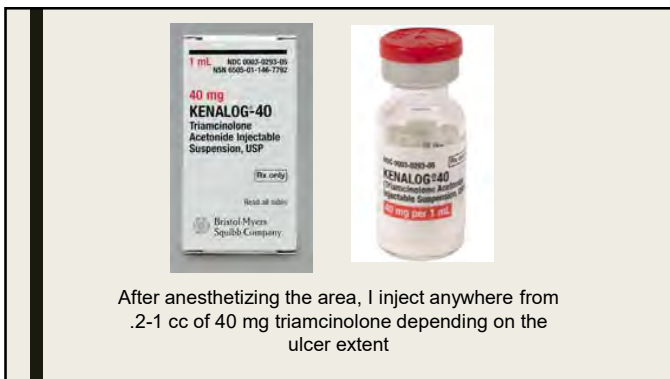
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Post Intralesional Steroid Injection



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6 weeks later



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25-year-old white male with slightly tender oral lesions



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Warning!!

Sex and Oral Pathology

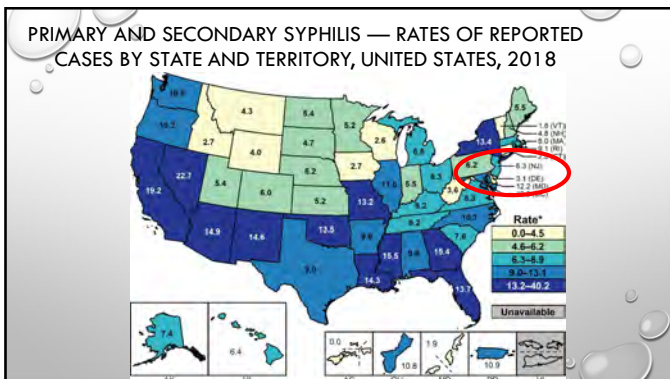
ATLANTA Oral PATHOLOGY

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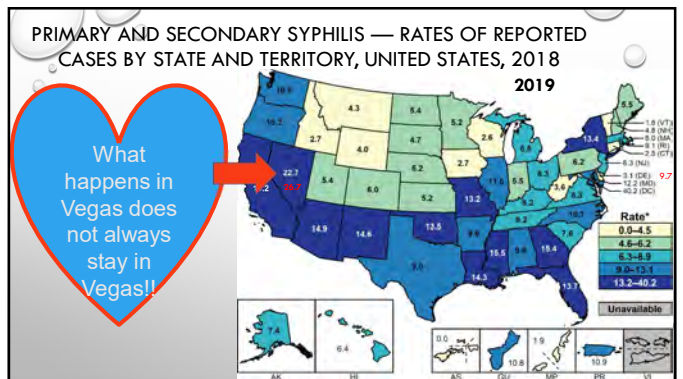
DIAGNOSIS

Secondary Syphilis

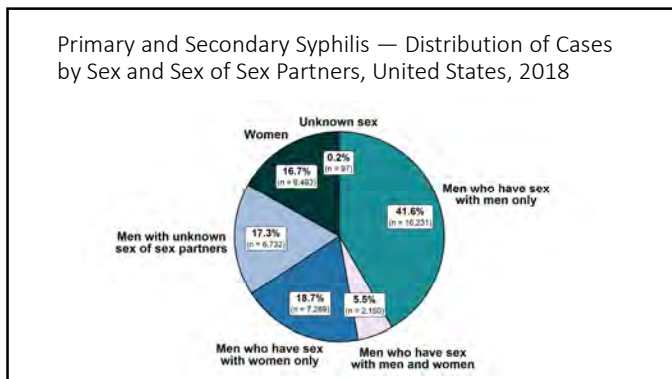
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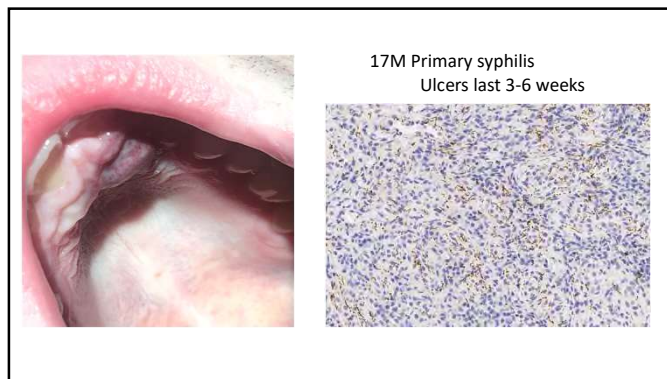
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Oral Candidiasis

- An opportunistic organism which tends to proliferate with the use of broad-spectrum antibiotics, corticosteroids, cytotoxic agents and medications that reduce salivary output

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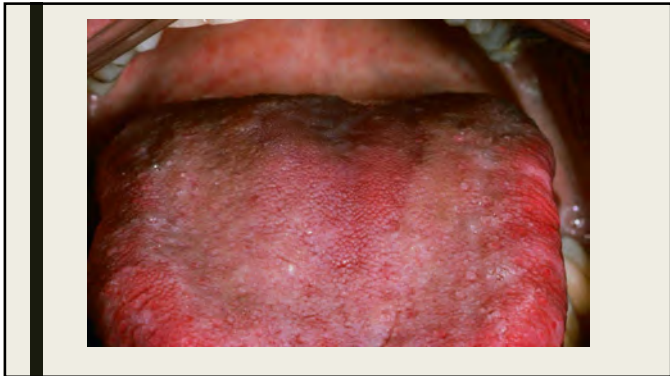
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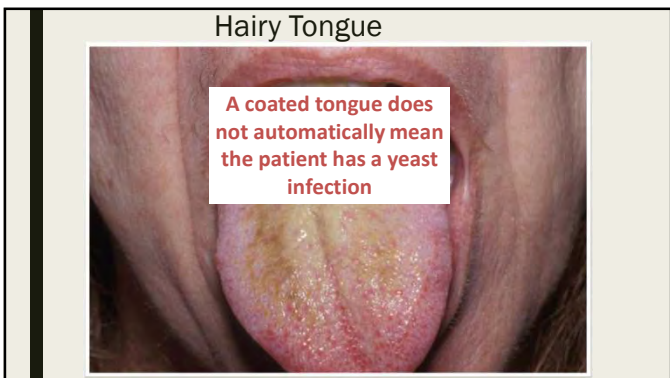
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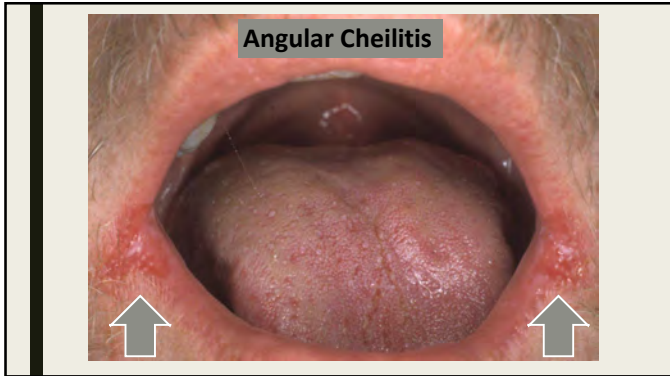


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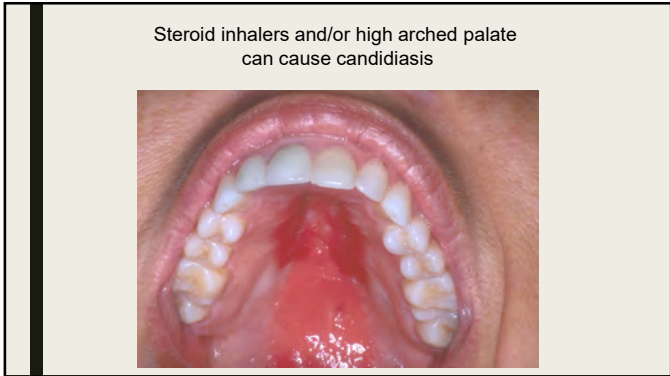


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A coated tongue does not automatically mean the patient has a yeast infection

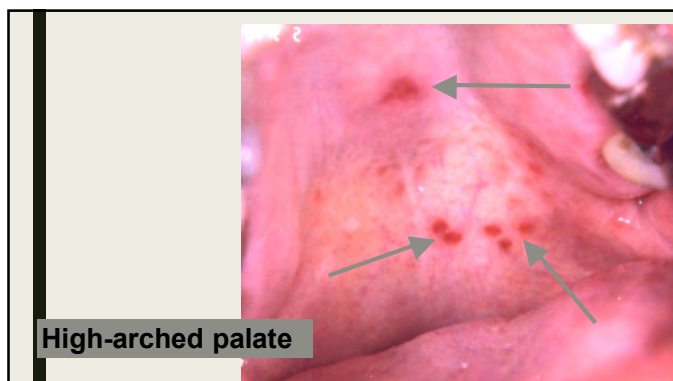


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Steroid inhalers and/or high arched palate can cause candidiasis




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 Treatment

Nystatin Suspension 100,000U/ml
Dispense 280 ml (14-day course)

→ SIG: 1 tsp QID, hold for 3 mins, spit out, no food, liquid or rinsing for 30 mins


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 Treatment

Clotrimazole (Mycexel) 10 mg Troche
Dispense 70 troche


→ Sig: Dissolve in mouth 1 troche 5x day
No eating, drinking or rinsing for 30 minutes
If applicable, remove dentures first

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 Treatment

- **Fluconazole 100mg daily for 14 days**
!! Watch for drug interactions: statin drugs (cholesterol meds), warfarin, sulfonyleureas, some antihypertensives
!! Always check for interactions before prescribing

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 **TREATMENT**

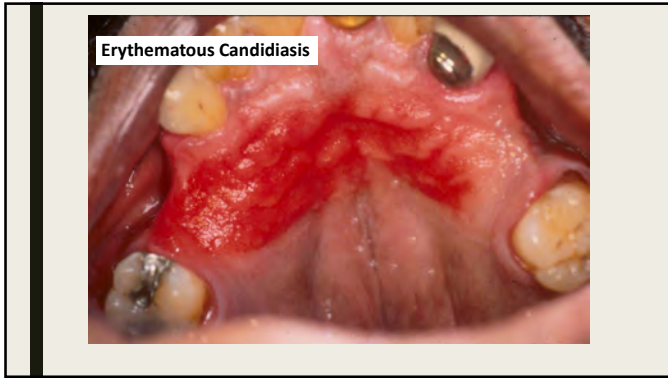
- ▶ **Angular Cheilitis:**
 - ▶ Nystatin/Triamcinolone ointment/cream
 - ▶ Apply to the corner of lips BID



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Remember to Treat the Denture!

-  Patient should be encouraged to remove denture when sleeping
-  Place an antifungal cream (eg clotrimazole) inside the denture QD for 30 days.

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Rashes: Perioral Dermatitis

- Often looks like small, red, acne-like breakouts
- Can itch
- Can also appear around mouth and nose
- NOT CONTAGIOUS




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Also, possible that there is no itching or burning but dry and flaky skin

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Causes of Perioral Dermatitis



- Not entirely clear and is most likely different for each individual
- Irritant: soaps, moisturizers, other skin care products, toothpaste that is touching your skin
- Overuse of corticosteroid medicine on the skin

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Treatment of Perioral Dermatitis:



- Stop applying corticosteroids
- Antibiotic such as tetracycline or erythromycin
- Change skin care routine

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2 months of doxycycline 100mg BID




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Factitial Perioral Dermatitis (Licking)

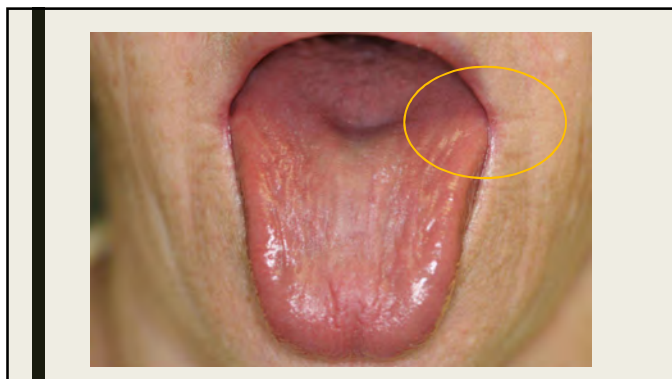


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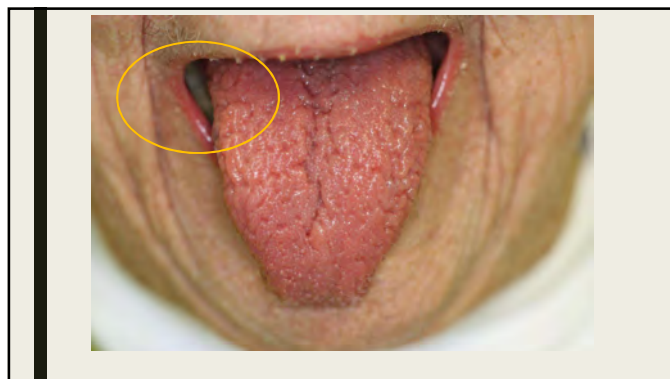
Persistent Candidiasis

- Can be caused by a variety of etiologies:
- Need blood work to rule out anemia:
 1. CBC with differential: low iron in a man or post-menopausal F, need to ask why
 2. B12: low B12 is pernicious anemia which increases with age

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Persistent Candidiasis

- Check glucose levels: May be undiagnosed diabetic
- Poorly controlled diabetic
- Check thyroid levels
- Is patient on chronic steroid or antibiotic use?
- Xerostomia

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Xerostomia due to Medication

More than **800** medications cause dry mouth

Antihistamines: Benadryl, Claritin, Zyrtec, etc.

Antidepressants: including Zoloft, Flexaryl and Elavil

Antiemetics: prescribed to prevent vomiting & nausea in chemo- and radiation therapy and motion sickness e.g. Anzemet, Domperidone

Antihypertensives: Albuterol aerosol, Norvasc, Prinivil

Antiparkinson: Levodopa, Artane

Antipsychotics: Zoloft, Lexapro

Sedatives: Amytal, Valium, Lunesta

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Xerostomia: Impact on Oral Health

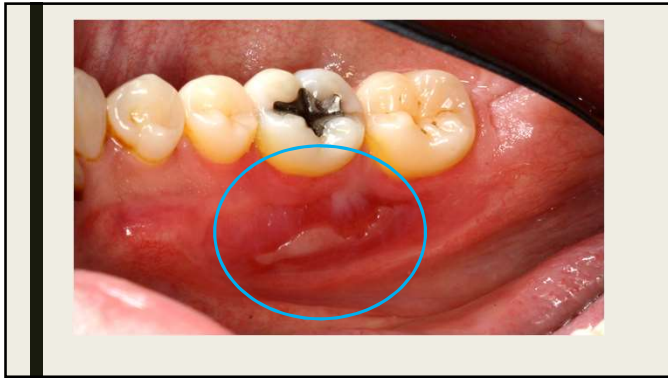
- Caries: 6x/erosion (corrosion)/abrasion
- Periodontal Disease ↑ with connective tissue disease
- Mucosal disease ↑ with medications and systemic disease

Saliva Protects Against Erosion, Attrition, and Abrasion

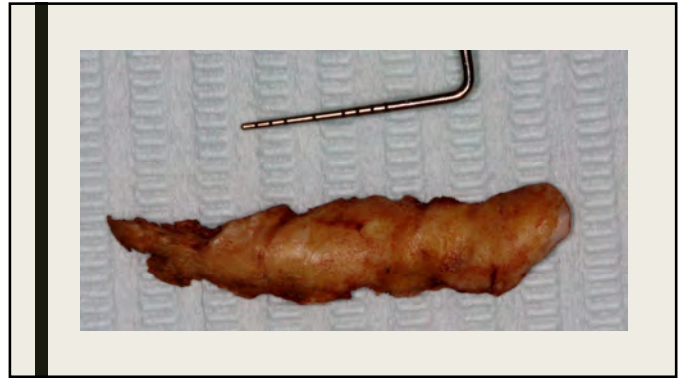
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Shifting Gears

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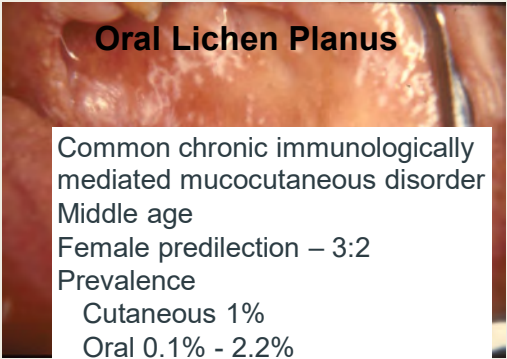
Mandibular Sequestration



- Most often involves the lingual mandible near the mylohyoid ridge
- Spontaneous or related to extractions or dental work.

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Oral Lichen Planus



Common chronic immunologically mediated mucocutaneous disorder
Middle age
Female predilection – 3:2
Prevalence
Cutaneous 1%
Oral 0.1% - 2.2%

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Lichen Planus

Extraoral lesions

- Cutaneous lesions:
 - Purple, pruritic, polygonal papules
 - Flexor surfaces of extremities
- Nails
- Glans penis, vulva



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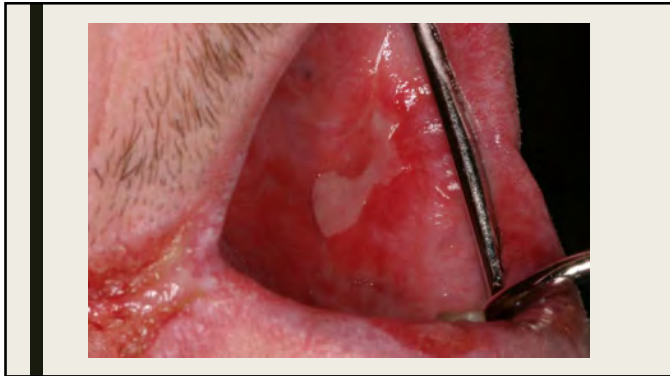
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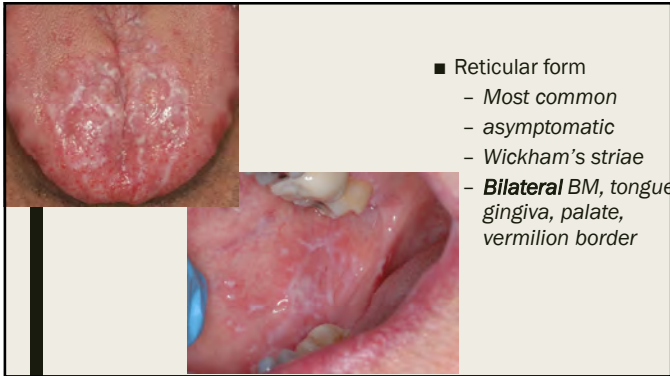
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- Reticular form
 - Most common
 - asymptomatic
 - Wickham's striae
 - **Bilateral** BM, tongue, gingiva, palate, vermillion border

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Erosive OLP:

- less common; symptomatic
- atrophic erythematous areas with central ulceration
- bordered by fine, white radiating striae


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Treatment of Erosive OLP

Decadron elixir:
 0.5 mg/ 5ml
 Disp 500 ml
 1 tsp qid, hold
 3mins, spit out, no
 food/liquid for
 30mins

Compounded rinse:
 Triamcinolone rinse
 4mg/ml

Severe - systemic
 prednisone



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Post-treatment




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Treatment of Erosive OLP: Systemic Prednisone

Rx Prednisone 10 mg
 Disp: depends on dosing
 Sig: 30 mg to 60 mg PO q AM.


Sequence depends on disease severity. I often do 60 mg day 1, 50 mg day 2, 40 mg day 3, 30 mg day 4, 20 mg day 5-7, 10 mg day 8-12, then one every other day for 2 or 3 more doses.



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Treatment of Erosive OLP: Systemic Prednisone



- Prednisone should be taken within 1½ hours after waking time to minimize side-effects
- Candidiasis can be a side-effect of any steroid or antibiotic therapy, either topical or systemic.
- Diabetic patients need to monitor glucose levels carefully since prednisone increases blood glucose concentrations.



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Gingival Lichen Planus Treatment

- In addition to the steroid mouthrinse:
- Doxycycline 100mg QD for 90 days then re-evaluate

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Oral Lichen Planus
 Differential Diagnosis

- Oral lichenoid drug reactions to systemic drugs
- Oral lichenoid contact-sensitivity
- Oral leukoplakia

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Juvenile Spongiotic
 Gingival Hyperplasia

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Table Summary of clinical and demographic features.		
FEATURE		RESULT
Male-Female Ratio		1.25:1
Age, Median (Range), y		14.5 (3-64)
Anterior Facial Gingiva, No. (%)		26/28 (92.9)
Maxilla-Mandible Ratio		27:1
Duration, Range**		3 weeks-several years
Red Color,** No. (%)		27/27 (100)
History of Bleeding, No. (%)		4/28 (14.3)
History of Pain, No. (%)		1/28 (3.6)
Most Common Clinical Impression** (%)		Pyogenic granuloma (55.6)
Recurrence, No. (%)		3/28 (10.7)
Time to Recurrence, Range		17 months-10.5 years
		*When provided.

REAPPRAISING LOCALIZED JUVENILE SPONGIOTIC GINGIVAL HYPERPLASIA.
 VARGO, RJ. ET AL. JADA, 150;2:147 - 153, 2019

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Cinnamon
 Reaction



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Cinnamon Reaction

Contact reaction to cinnamon flavoring found in gum, candy, toothpaste, mouthwash, dental floss, soft drinks. Can see thickened white areas as well as red, sore areas.

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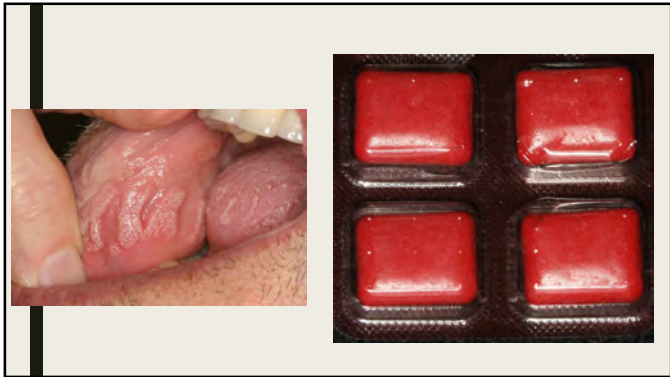
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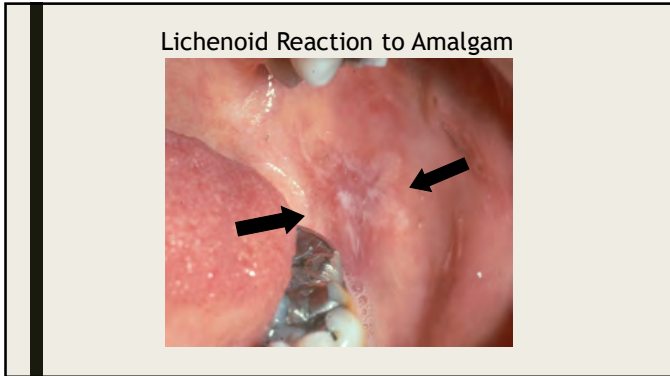


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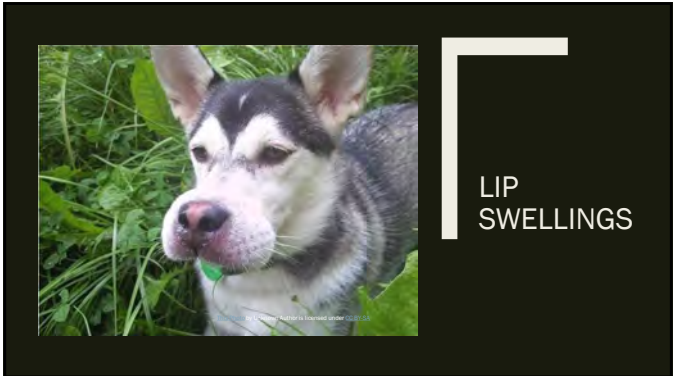


Lichenoid Reaction to Brackets or Bands

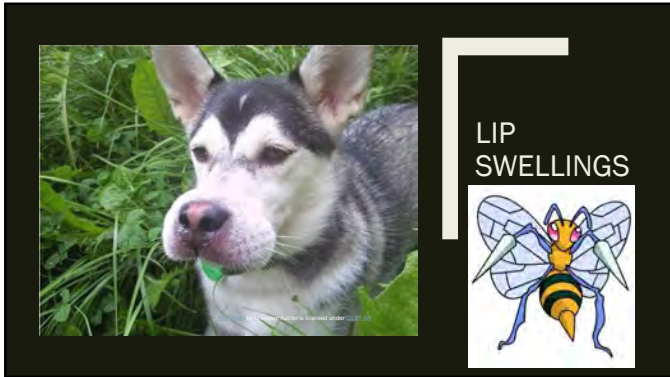
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Idiopathic Orofacial Granulomatosis

- Term first introduced in 1985
- Replaces the terms Melkersson Rosenthal Syndrome and cheilitis granulomatosa
- Precise etiology is unknown
- Diagnosis is rendered when other local and systemic causes of oral granulomas are ruled out


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Idiopathic Orofacial Granulomatosis Presenting as Cheilitis Granulomatosa

May involve one or both lips

With persistence, the lips become firm and indurated

Can see fissuring



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CROHN DISEASE



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Crohn Disease

- Can involve any portion of the alimentary tract
- Annual incidence in North American ranges from 3 to 30 cases per 100,000
- Bimodal age of onset with average age of 30 years
- First peak before age of 30 and second but smaller peak around 50 years
- Oral manifestations may precede GI involvement.
- Oral involvement of CD reported in up to 80% of pediatric patients

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Crohn Disease



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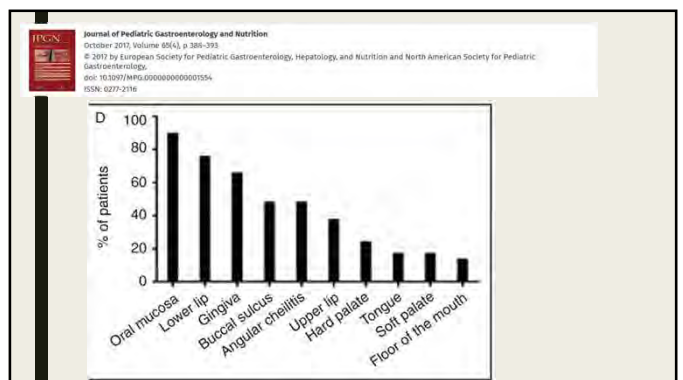
Journal of Pediatric Gastroenterology and Nutrition
 October 2012, Volume 55(4), p 388-393
 © 2012 by European Society for Pediatric Gastroenterology, Hepatology, and Nutrition and North American Society for Pediatric Gastroenterology.
 doi: 10.1097/MPG.0b0000000000001554
 ISSN: 0277-2116

Original Articles: Gastroenterology

Detailed Follow-up Study of Pediatric Orofacial Granulomatosis Patients
 Haaremo, Anu¹; Alakulli, Heikki^{1,2}; Alne, Liisa³; Saareisto, Ulla^{1,2}; Tuokkola, Jutta⁴; Ruuska, Tarja⁵; Sipponen, Taina⁶; Piiskarianta, Anne⁷; Kolho, Kaila-Leena¹

No of patients	29
Male	22 (76%)
Female	7 (24%)
Age, median, years (range)	
At OFG diagnosis	12.3 (2.9–15.8)
At Crohn disease diagnosis	12.3 (1.9–17.6)
At study appointment	14.3 (6.8–31.1)
Diagnoses	
OFG	29
Crohn disease	21
Previous surgery	3
Fistulizing perianal disease	7
Fistulizing perianal disease with perianal abscess	4

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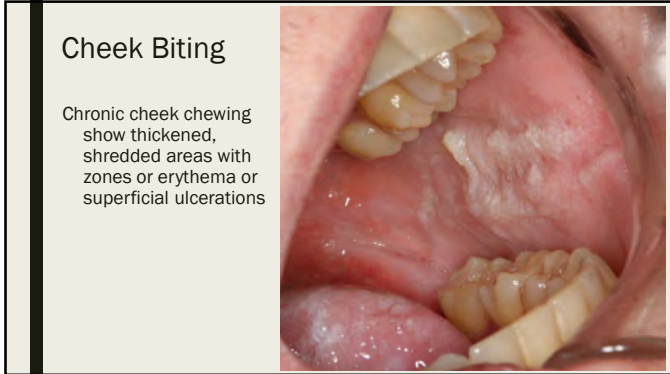
6 yr. old Female



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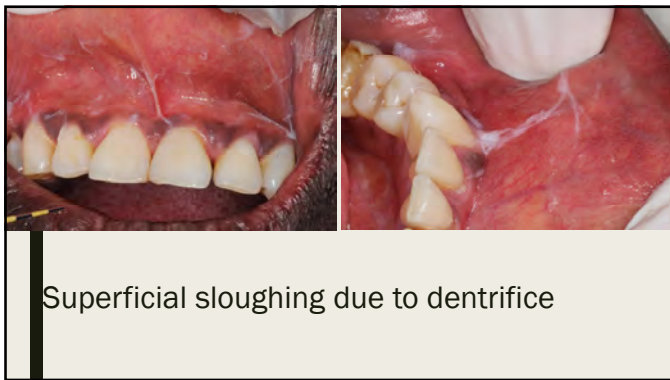
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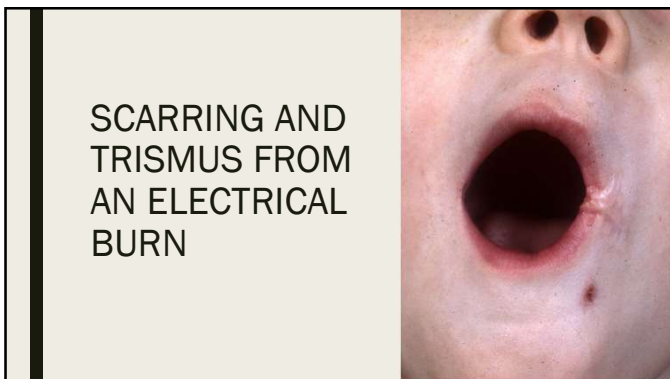
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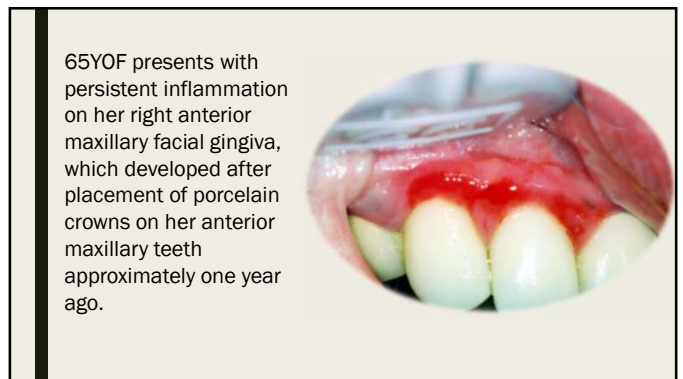
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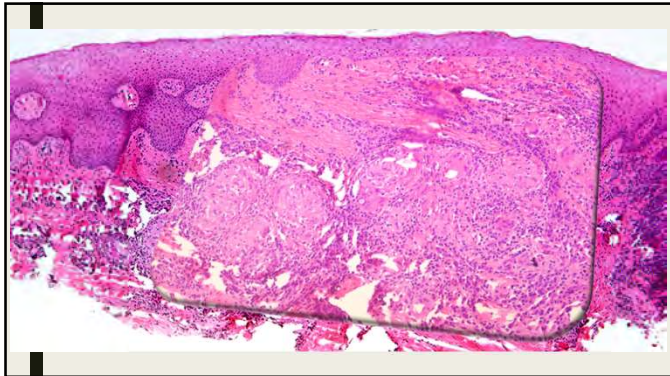
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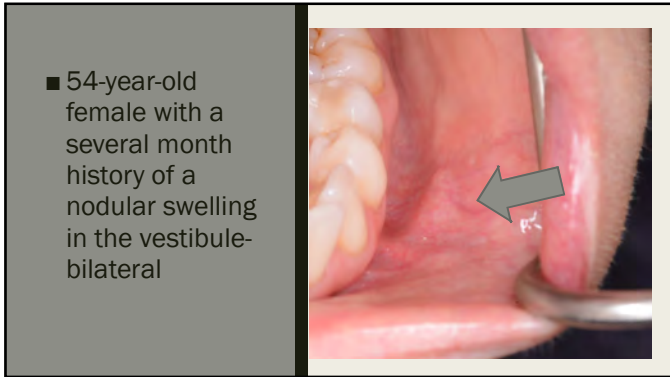
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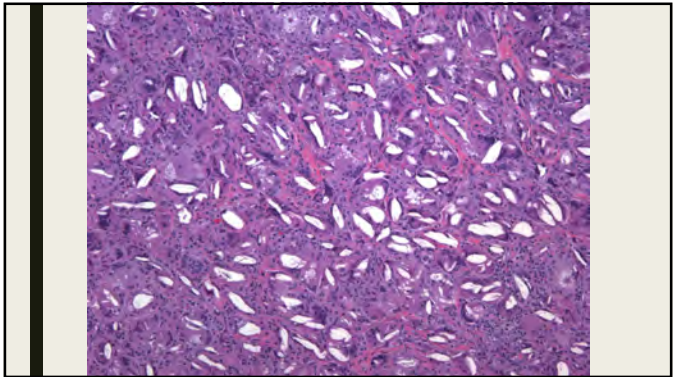
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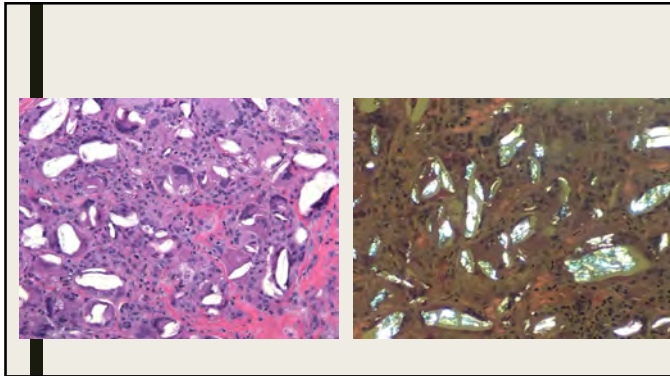
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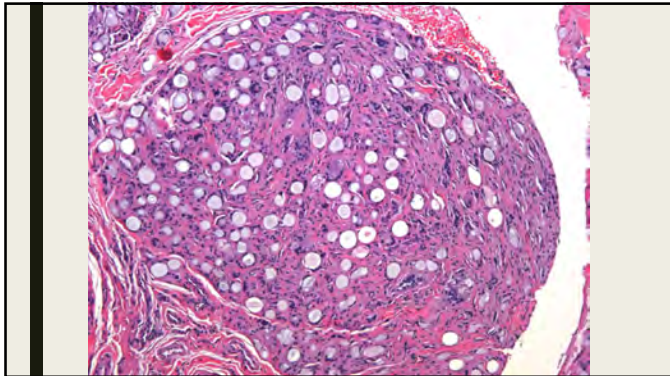


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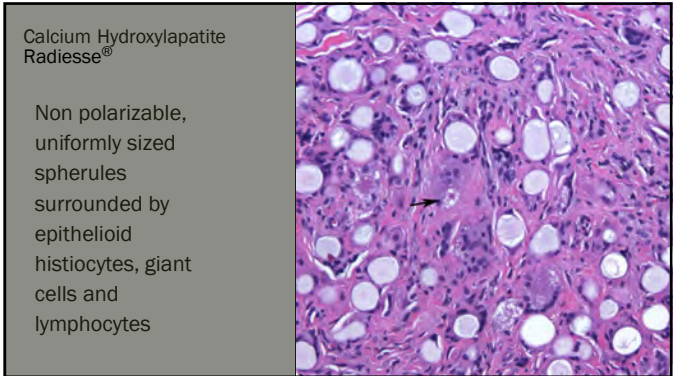
Diagnosis

- Foreign material giant cell reaction consistent with dermal filler
 - *Sculptra®*
 - *Poly-L-lactic acid, to replace lost collagen*
 - Corrects shallow to deep facial wrinkles, and folds

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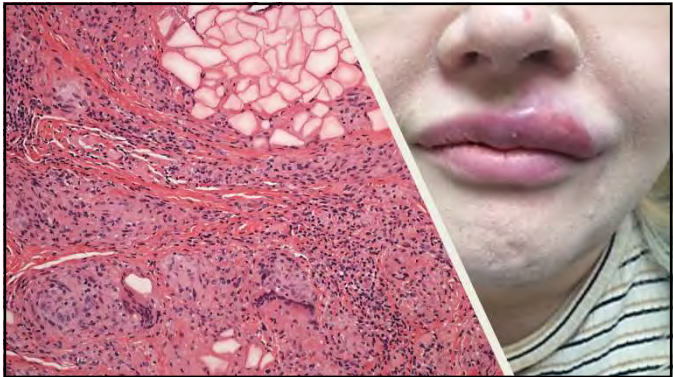
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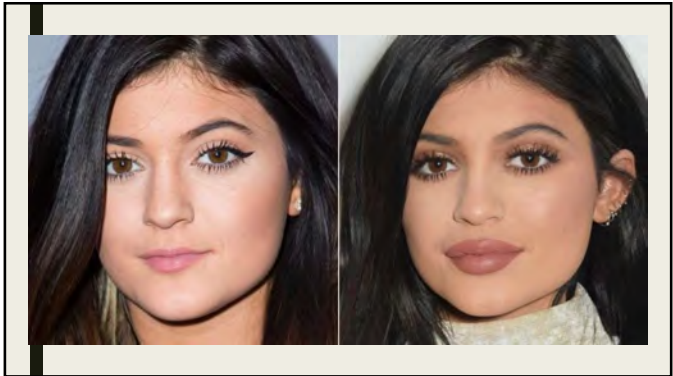
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Questions?

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