Common Oral Pathology Part I

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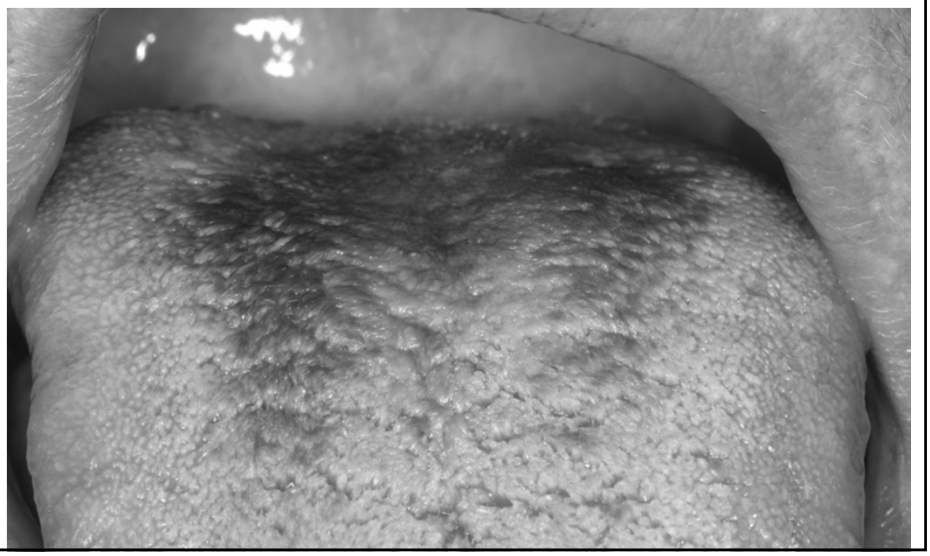
Coated Tongue (Hairy Tongue)

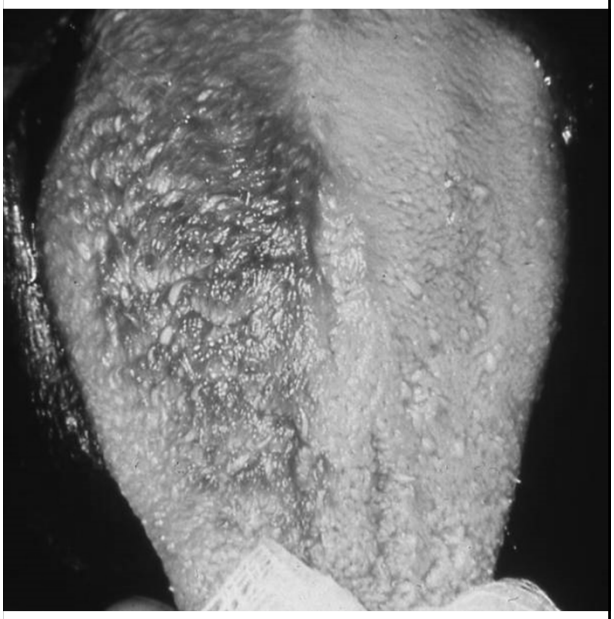
- Diffuse white alteration of dorsal tongue
- Elongation of the filiform papillae (accumulation of keratin)
- Often associated with smoking
- Asymptomatic

Papillae can become discolored
pigment-producing bacteria vs. extrinsic staining



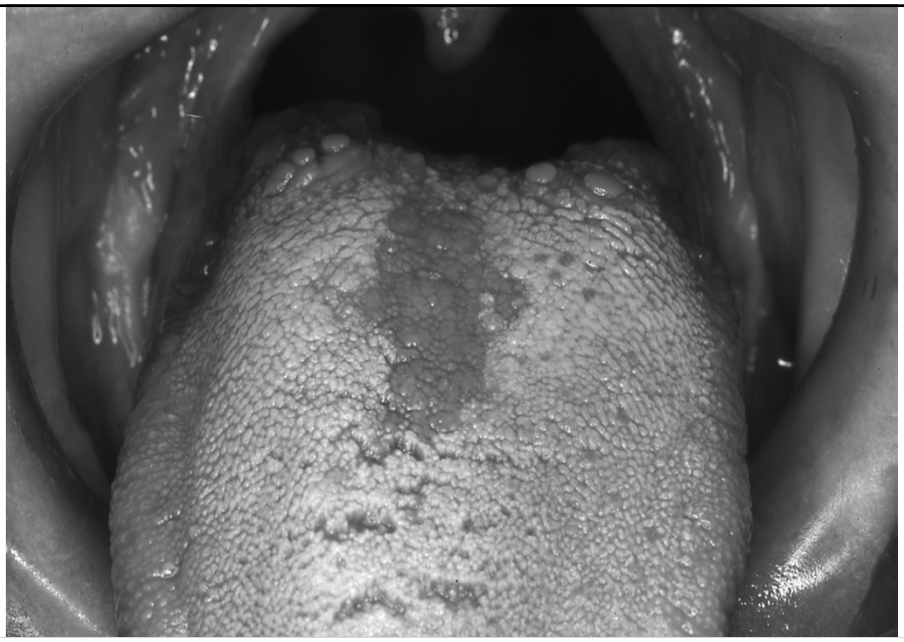
Treatment:

- **None**
- **Tongue Scraper**



Erythematous Candidiasis

- more common than pseudomembranous candidiasis
- red mucosal change
- tongue is common site



Central Papillary Atrophy

Candidiasis

Diagnosis:

Clinical signs and symptoms often sufficient

- **could perform a culture or exfoliative cytology**
- **biopsy - usually not necessary**

Erythematous Candidiasis

Treatment:

- **Topical or systemic antifungal therapy**
  - **Clotrimazole Troches (Mycelex)**
  - **Fluconazole Tablets 100mg (Diflucan)**

~Don't forget to treat dentures~

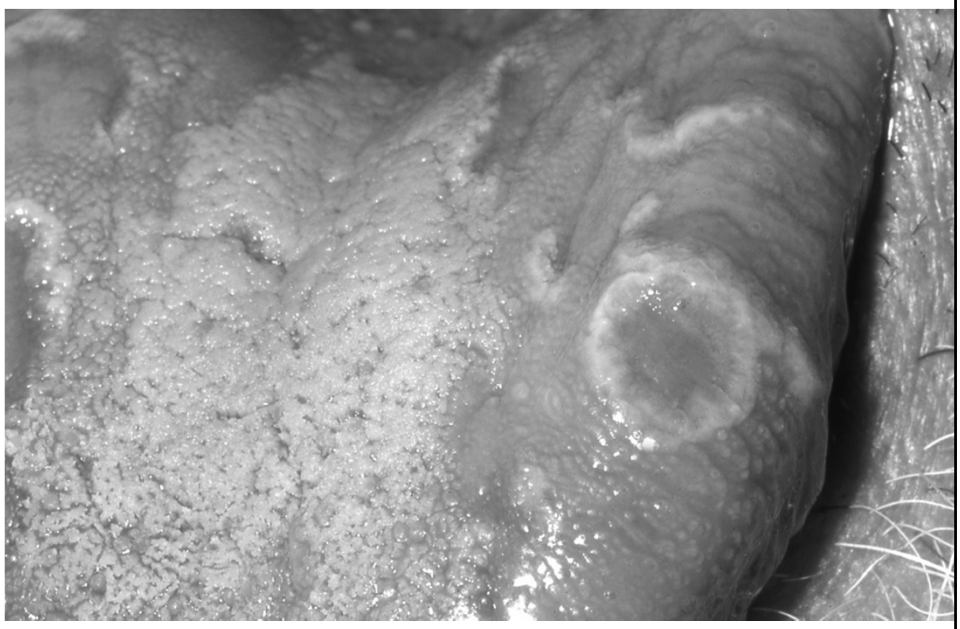
Benign migratory glossitis (Erythema migrans)

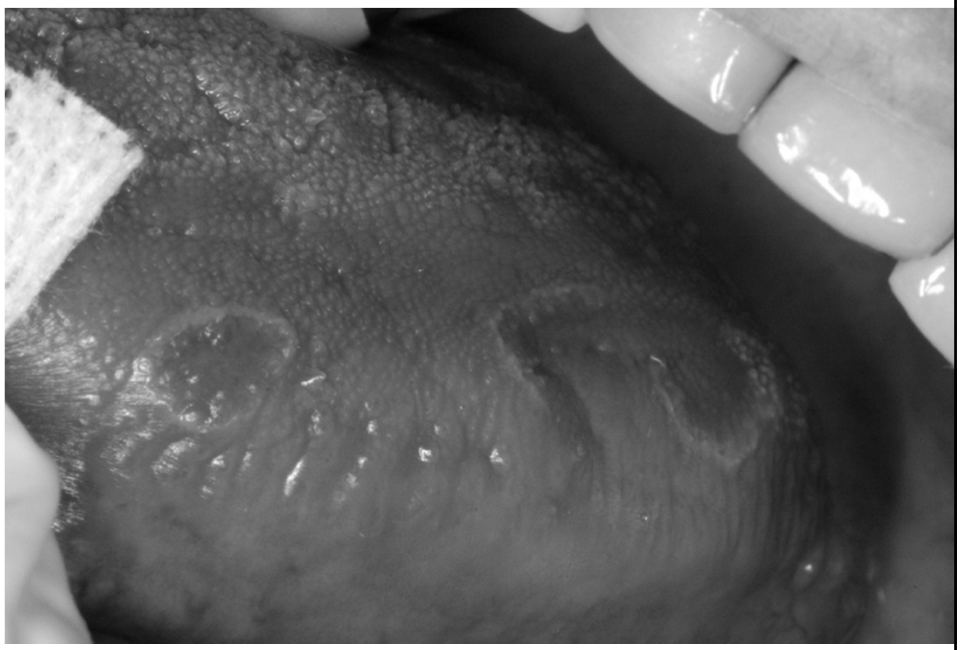
aka - "geographic tongue"

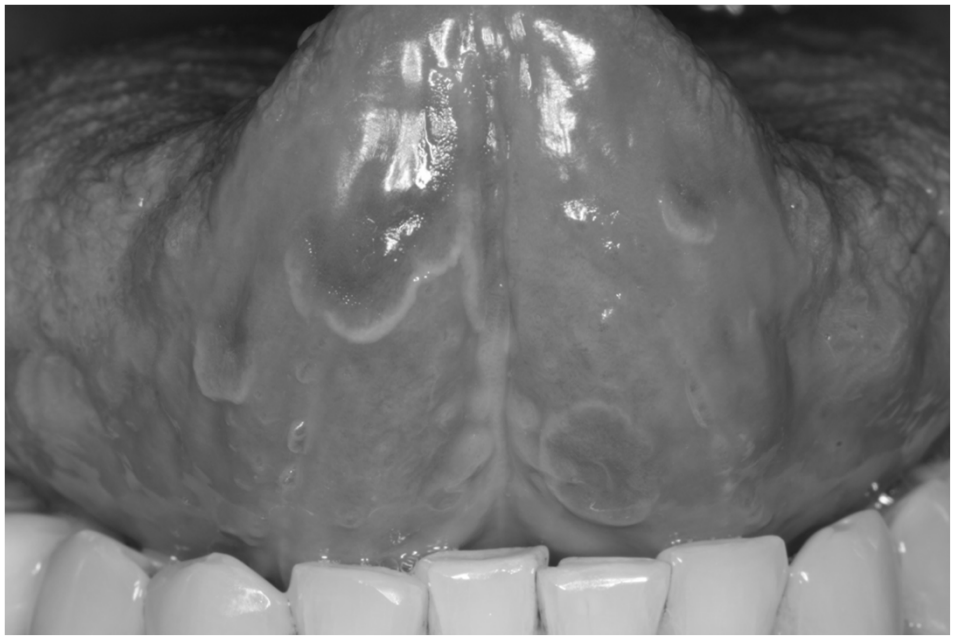
•One of the more common oral conditions, occurring in 1-3% of the population

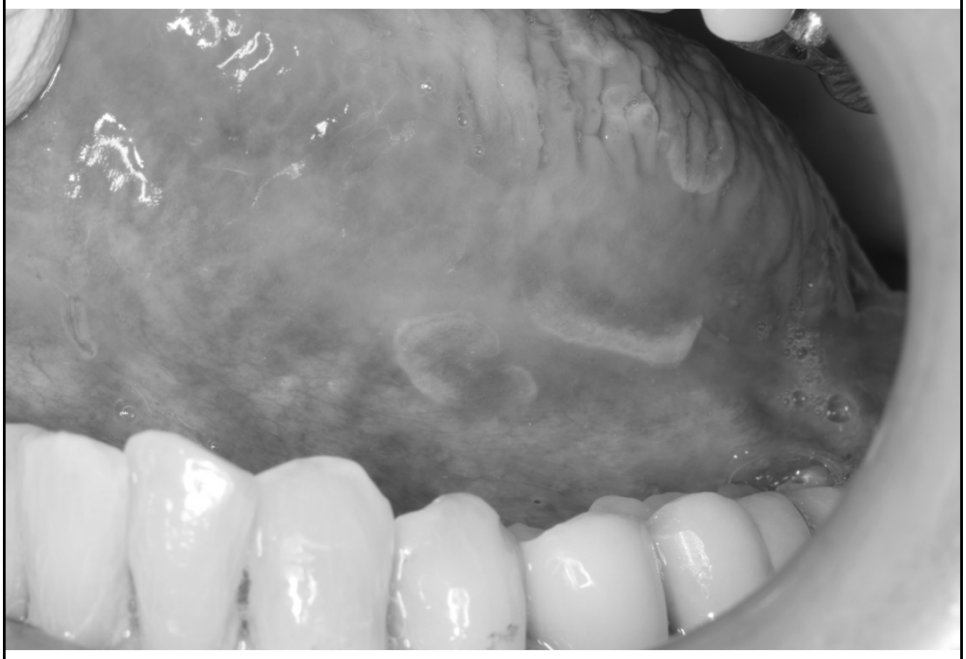
•Often seen with fissured tongue

•Probably immune-mediated









Benign migratory glossitis (Erythema migrans)

- **May develop on other non-keratinized mucosal surfaces**
  - **“ectopic geographic tongue”**

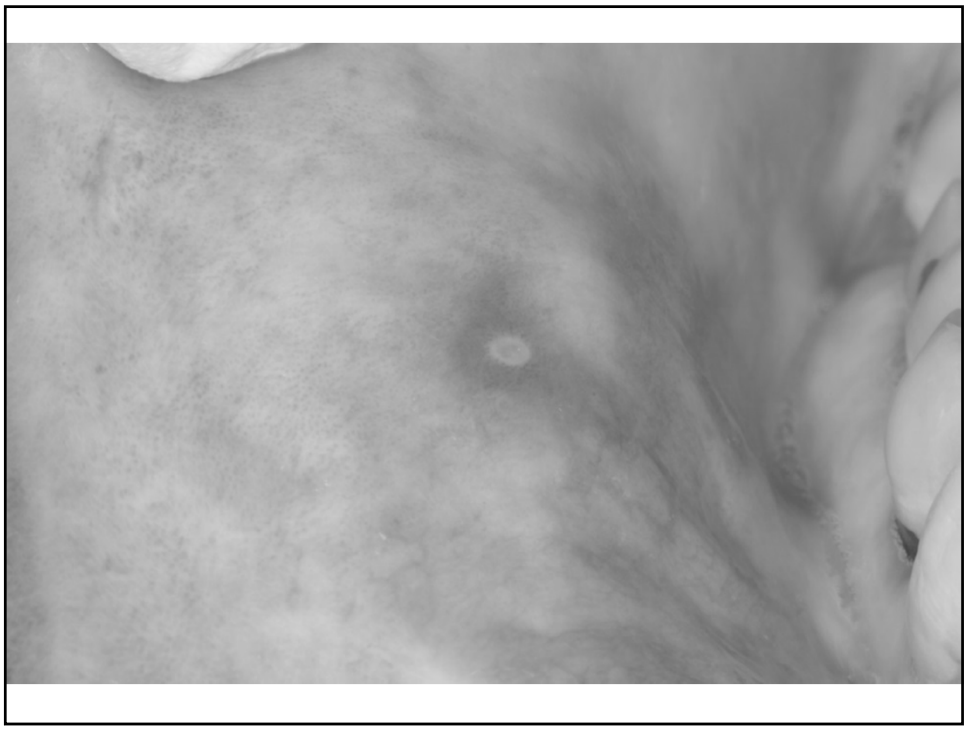
Recurrent Aphthous Ulcerations

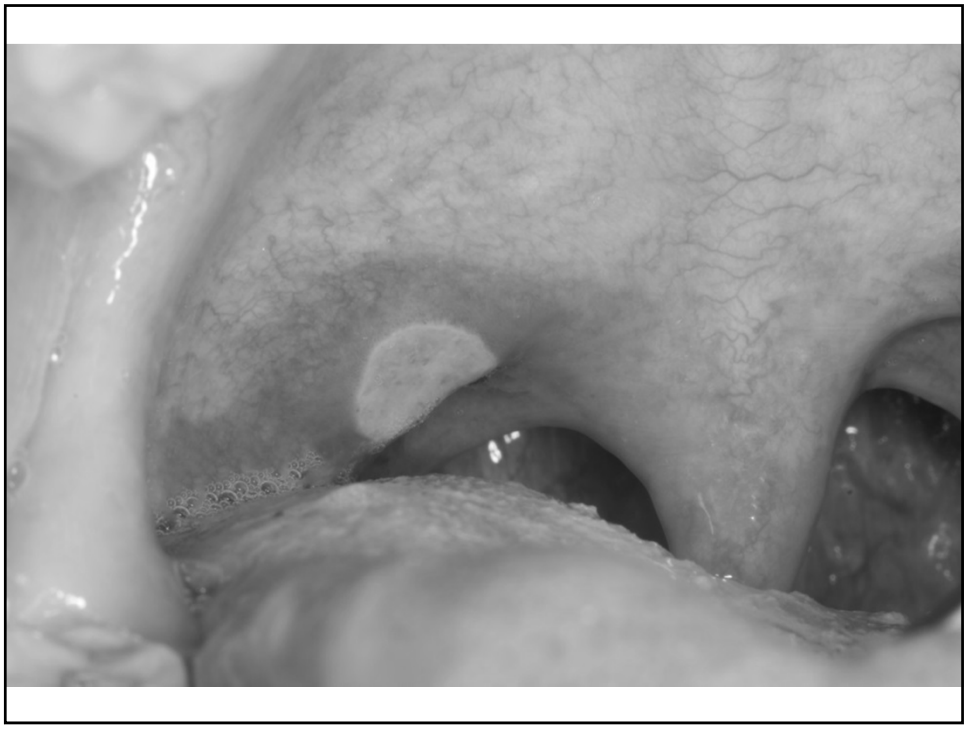
aka - "canker sores"

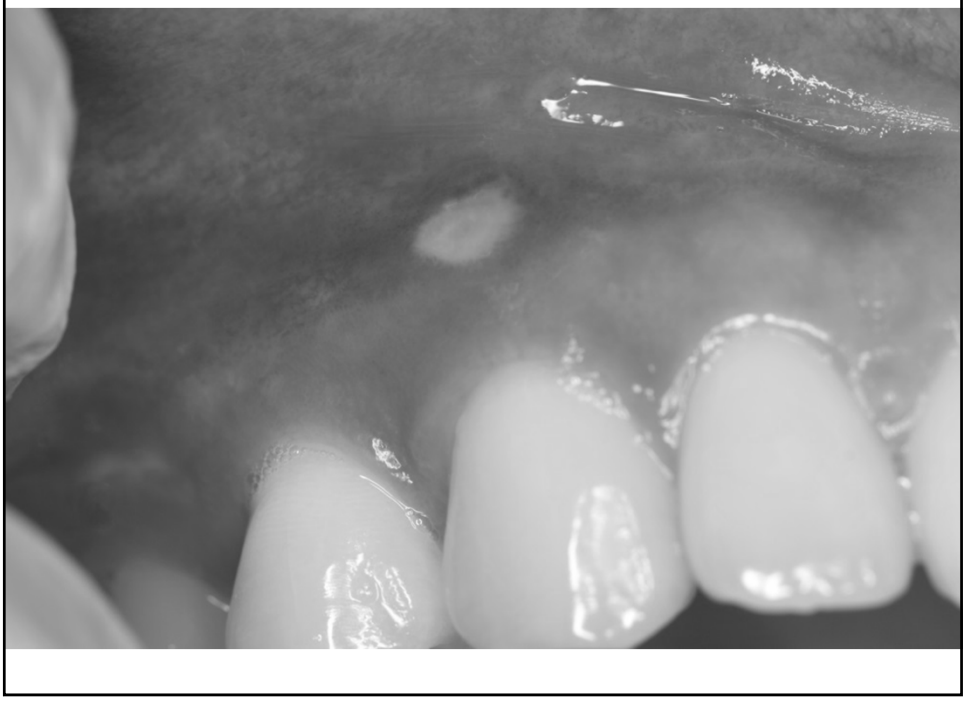
- **Common; familial relationship**
- **Most frequent in children and young adults**
- **Unknown pathogenesis; Immune-mediated process**

Recurrent Aphthous Ulcerations

- **Occur on nonkeratinized/movable mucosa**
- **Round to oval painful ulcers**
- **<u>Erythematous halo</u>**

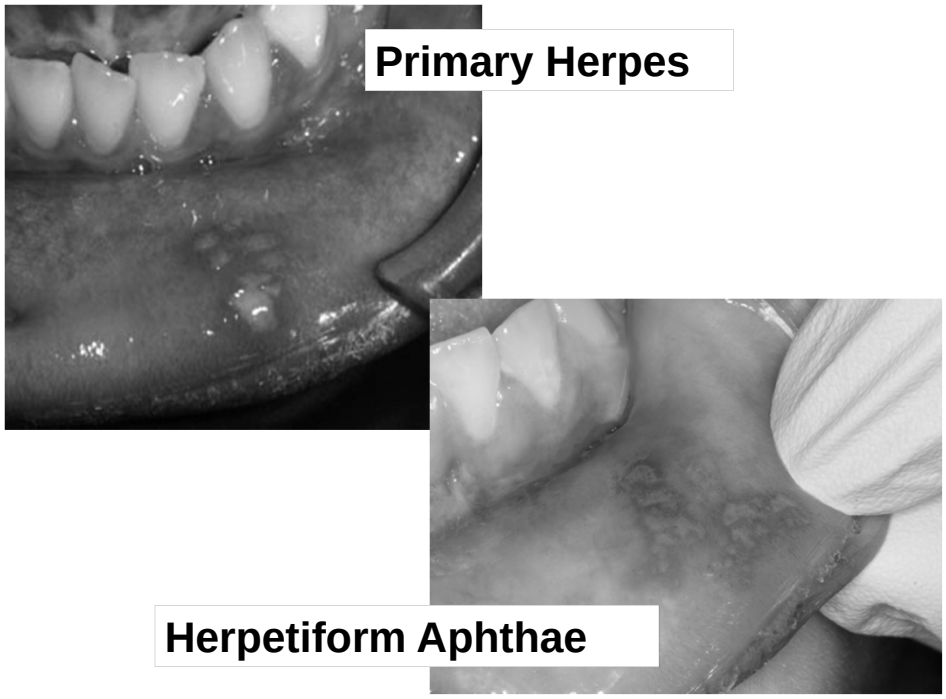






Recurrent Aphthous Ulcerations

- ***Diagnosis:*** **Clinical signs and symptoms often sufficient**
- ***Treatment:*** **Respond well to topical high –potency corticosteroids**
  - **Applied early in course of disease; thin film, multiple times per day**



Primary Herpes

- ***Acute onset***
  - **fever, cervical lymphadenopathy, oral sores**
- **Oral lesions begin as vesicles that quickly rupture to form shallow ulcers**

Primary Herpes (Herpetic Gingivostomatitis)

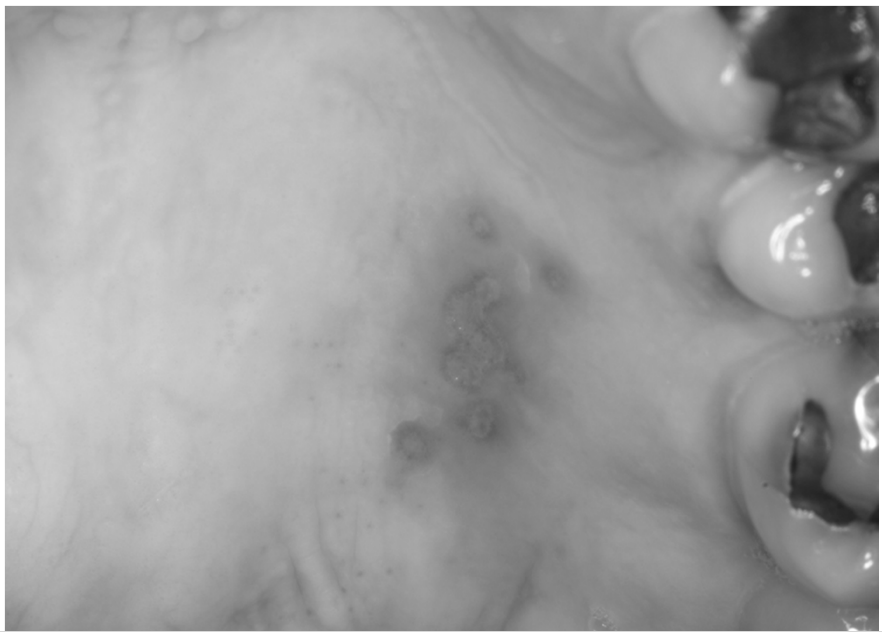
Primary Herpes

- Clinical signs and symptoms often sufficient for a strong presumptive diagnosis
- Resolves in 10 to 14 days, even without treatment
- ~ 25% chance of developing recurrent disease

Recurrent Herpes Labialis

Recurrent Intraoral Herpes

- Cluster of shallow ulcers
- Confined to <u>mucosa bound to periosteum</u>
  - hard palate and attached gingiva



Recurrent Intraoral Herpes

Image courtesy of Dr. Molly Rosebush

Summary

- ***Coated tongue*** **is not associated with candidal infection; in contrast, candidiasis involving the dorsal tongue typically presents as a central erythematous area termed *central papillary atrophy.***

- ***Geographic tongue*** **often presents with fissured tongue and exhibits atrophic erythematous zones with linear whitish-yellow borders; may occur in ectopic locations.**

Summary (cont.)

- **While individual lesions may appear relatively similar, *recurrent aphthous ulcers* can generally be distinguished from *herpetic ulcers* based on clinical history.**

Special thanks to Dr. Carl M. Allen for contributing clinical images.

Common Oral Pathology
(and Mimics That Matter)
Part II

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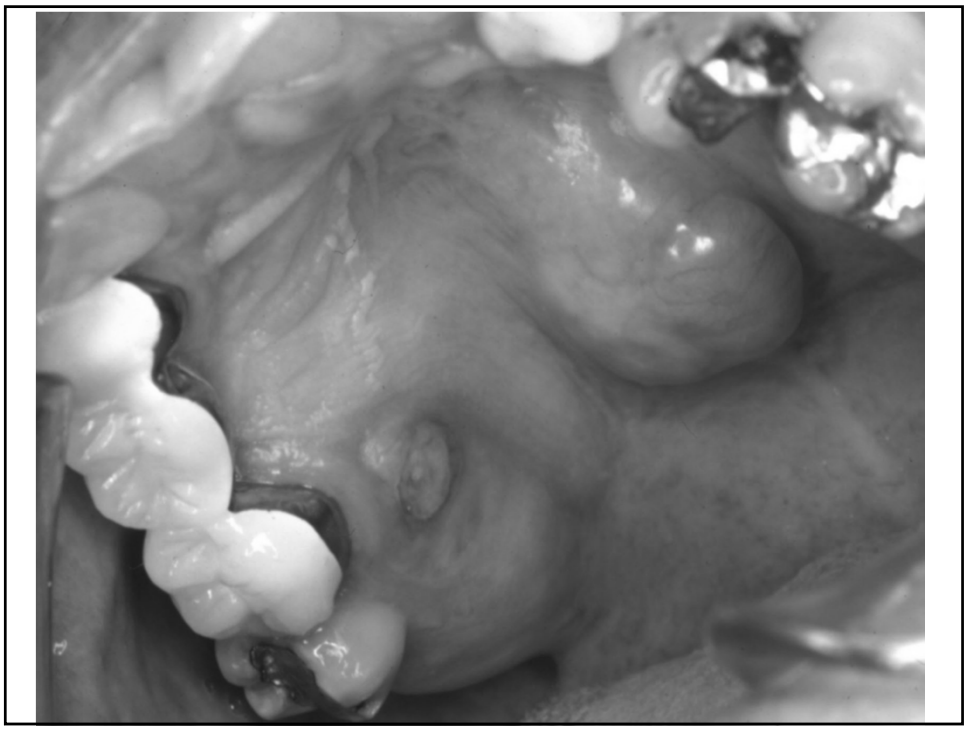
Oral Ulcerations

- Traumatic (common)
- Immunologic (common)
- Infectious (less common)
- Neoplastic (uncommon)

Traumatic Ulcers

- Most common form of oral ulcer
- Occur in areas susceptible to trauma, especially from the teeth
- More common in patients with dry mouths
- Often mildly symptomatic or asymptomatic



Traumatic Ulcers

- Heal with no treatment (5-7 days) in the absence of additional irritation/trauma
- Topical OTC protective medications, such as Zilactin, for comfort
- Corticosteroids are contraindicated (slow normal healing and may promote candidal colonization)

Traumatic Ulcers

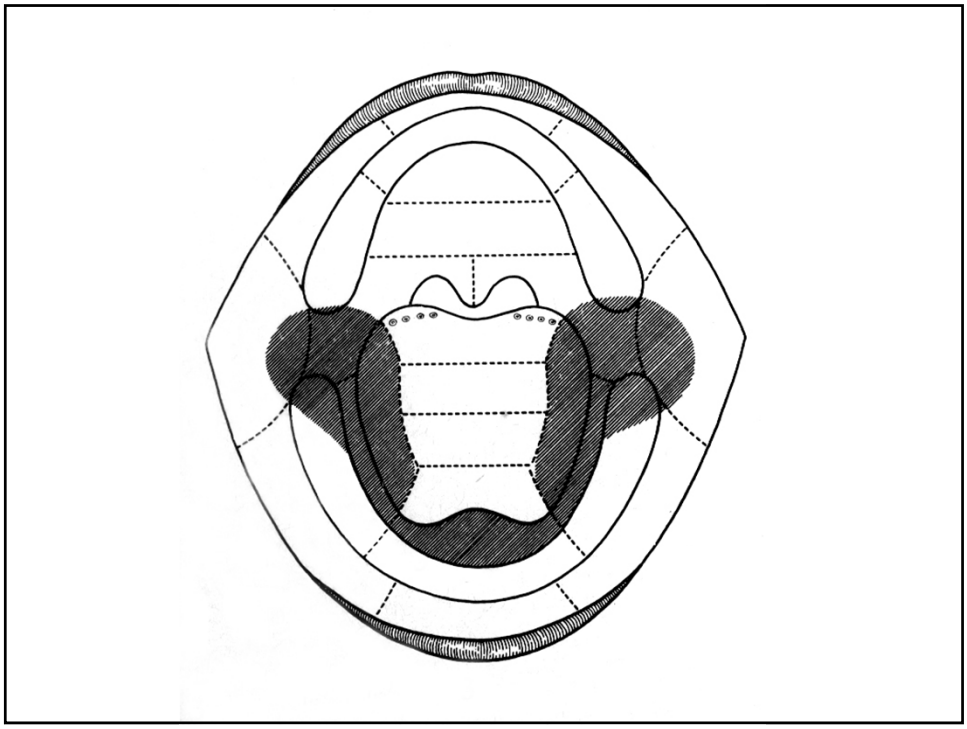
- Slow healing may be due to candidal infection of the periphery of the ulcer
- Xerostomia can also lead to persistence through reduced oral lubrication, candidal infection or both
- Patient must maintain adequate hydration, and saliva substitutes or salivary stimulants can be helpful

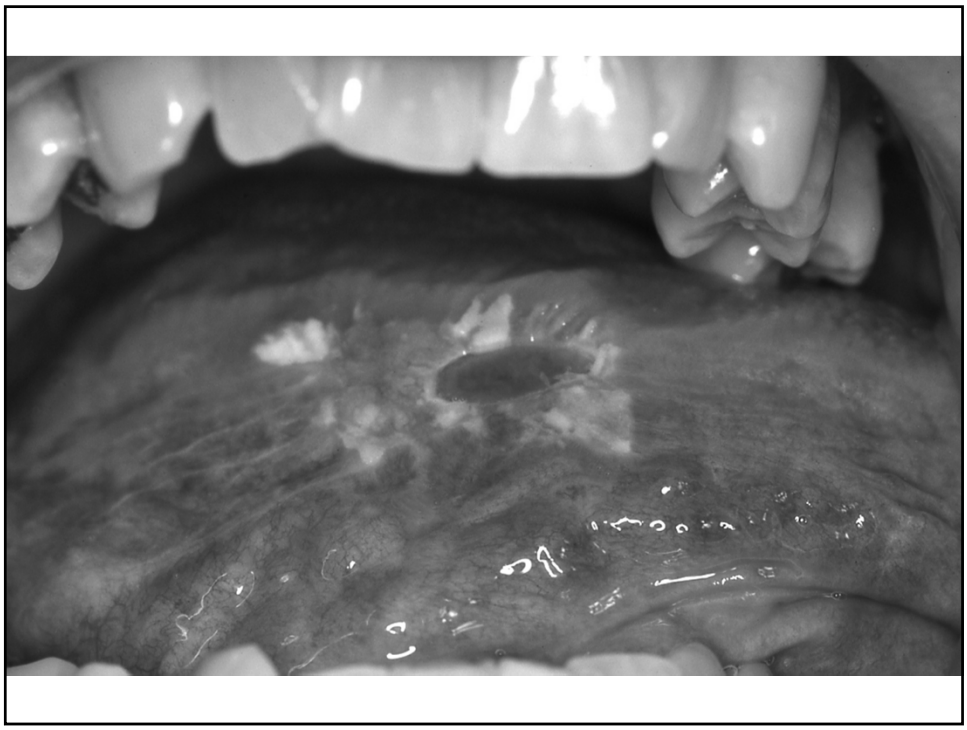
Neoplastic Ulcers

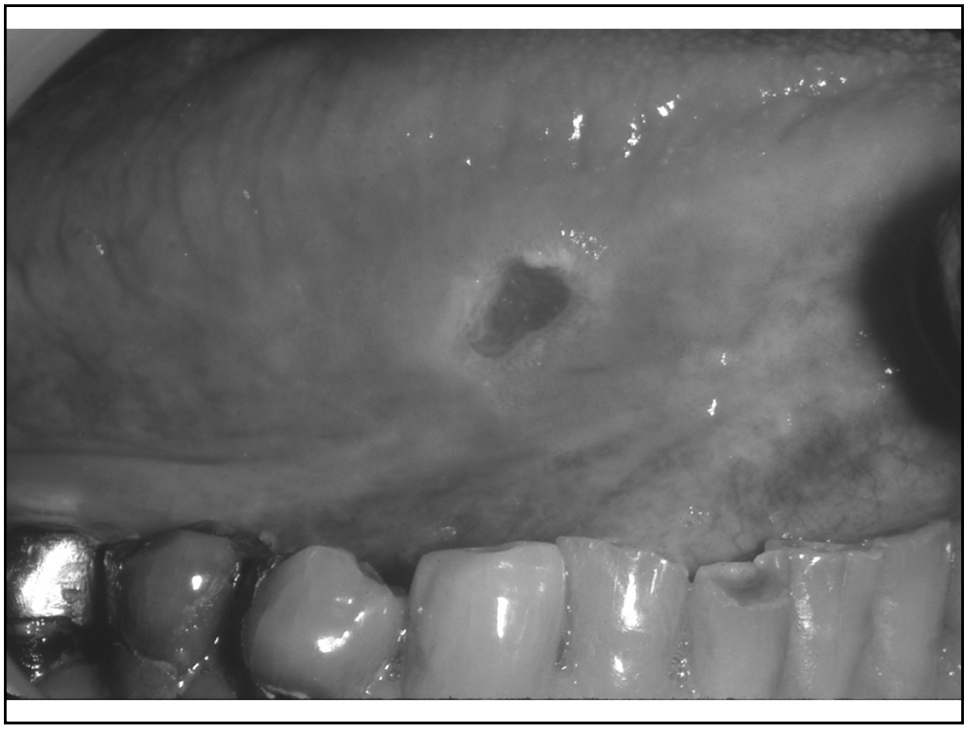
- Much less common than other types of oral ulcers, but far more significant
- Most represent mucosal squamous cell carcinoma, but lymphoma (both T and B-cell types), salivary gland malignancy and mesenchymal malignancies may also present with ulceration

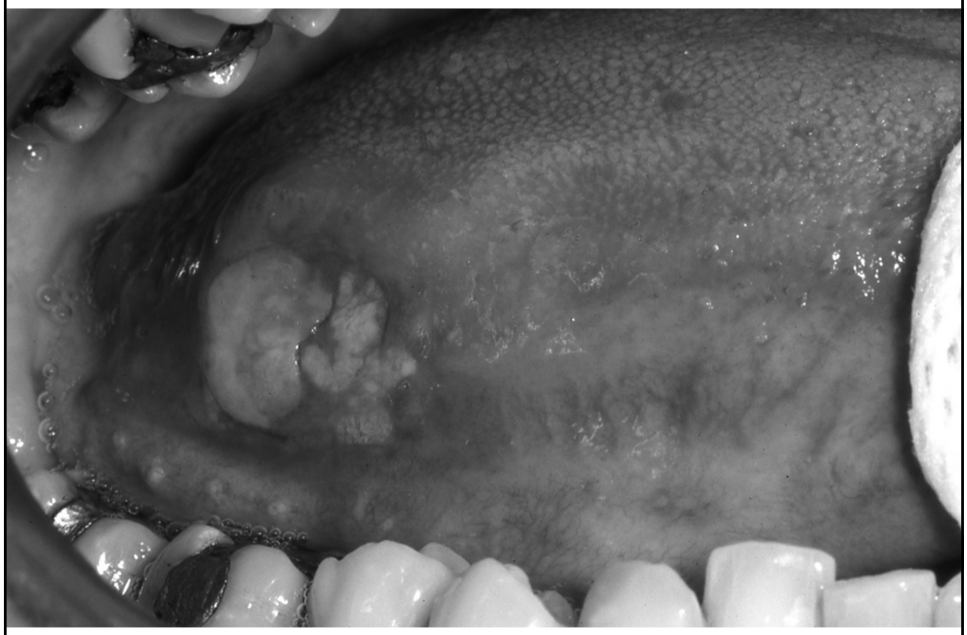
Neoplastic Ulcers

- High-risk sites for oral squamous cell carcinoma include the ventrolateral tongue, lateral soft palate and floor of the mouth
- Ulcers tend to be chronic, often arise in pre-invasive lesions (leukoplakia/erythroplakia)
- Induration may be a sign of invasion
- Symptoms are variable









Oral Ulcers

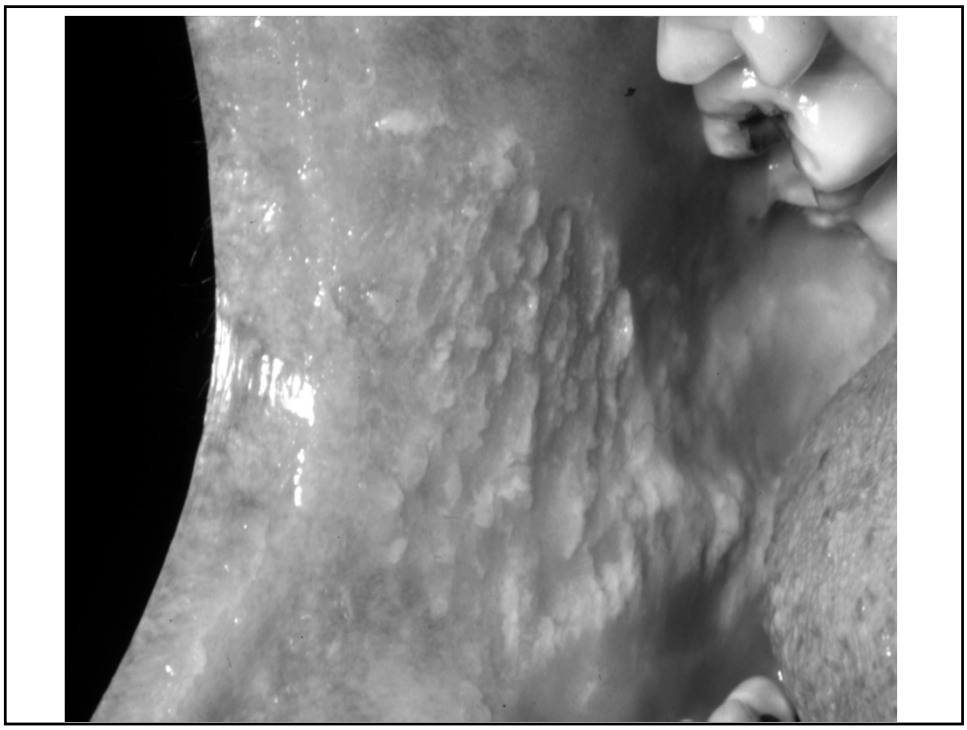
- **“Take home” message:**
  - **If an oral ulcer persists for more than 2-3 weeks despite therapy/removal of potential irritants, biopsy should be considered to establish a diagnosis and direct further treatment as needed**

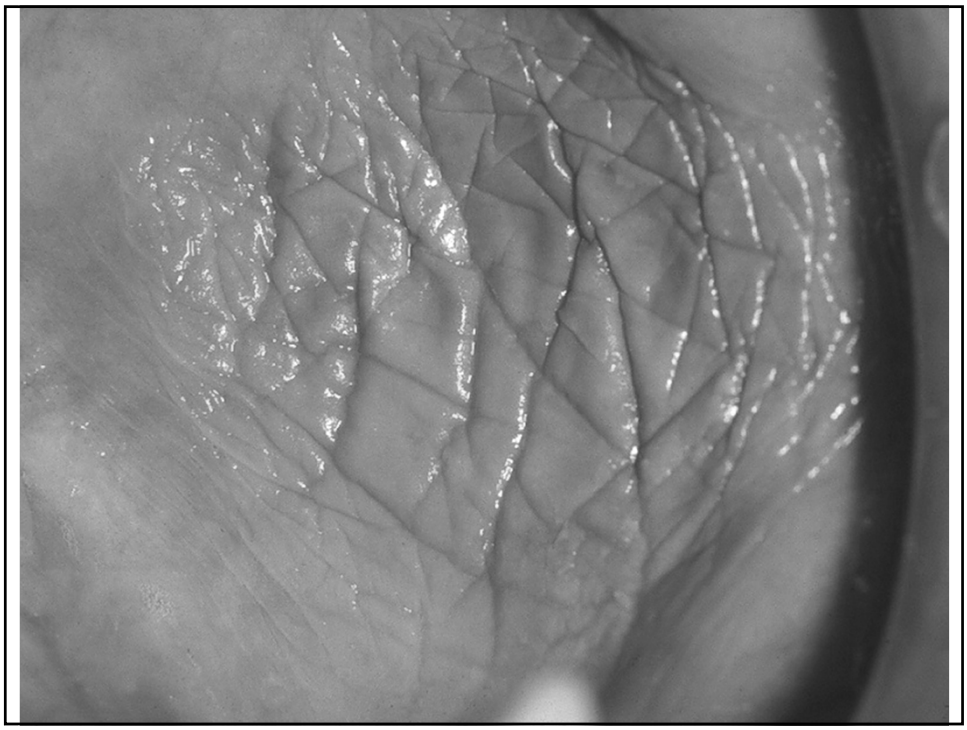
Leukoplakia

- White patch in the mouth that cannot be scraped off and cannot be diagnosed clinically as any other condition
- Clinical term only
- Considered to be a premalignant or potentially malignant process; biopsy is mandatory

Things that are <u>not</u> leukoplakia

- Candidiasis
- Cheek chewing
- Frictional keratosis
- Nicotine stomatitis
- Snuff-dipper's keratosis





Leukoplakia

- Older adult males (>50 years of age)
- Tobacco use, particularly cigarettes, with synergistic effect in heavy drinkers
- Sharply demarcated white plaque with variable physical appearance

Leukoplakia

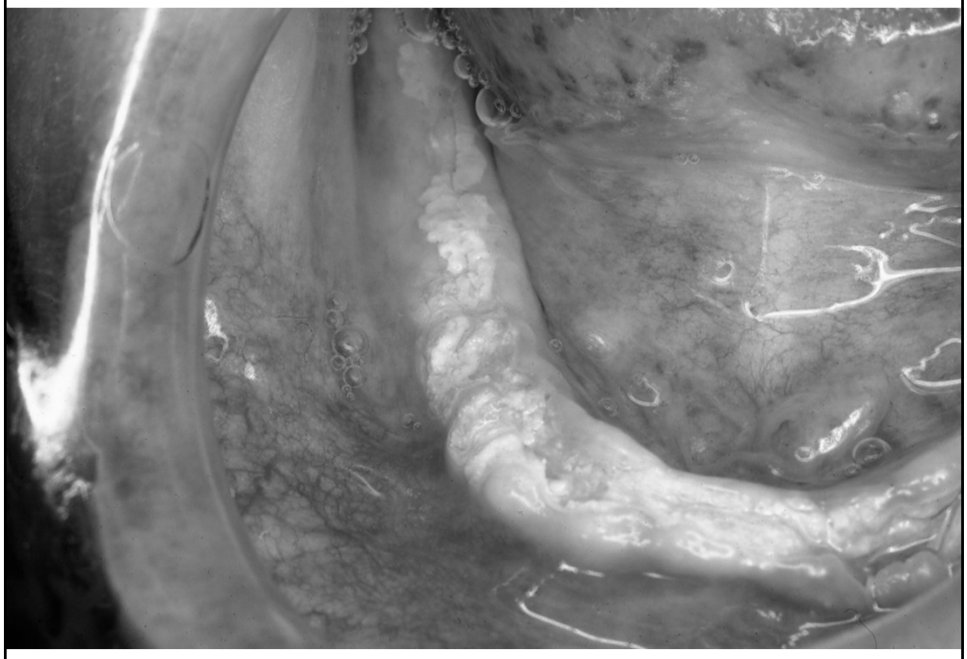
- Clinical appearance has prognostic implication
- homogeneous lesion
  - low risk of malignant transformation
- non-homogeneous lesion
  - increased risk of high-grade dysplasia or squamous cancer

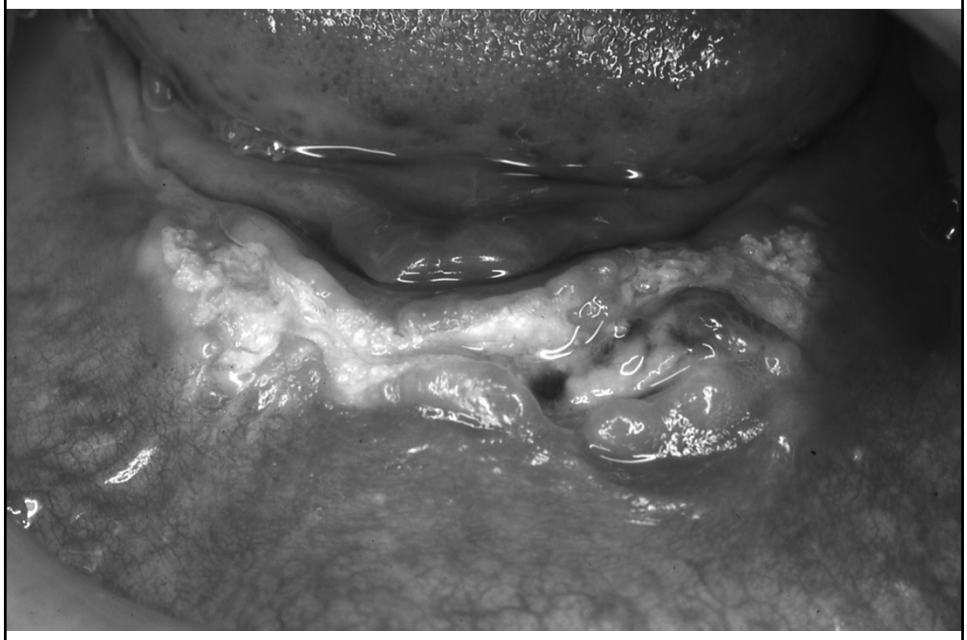
Leukoplakia

- Treatment is controversial
- No dysplasia - discontinue carcinogenic habits; increase natural antioxidants in diet; watch?
- Mild dysplasia or worse - remove completely by the most convenient means available

Leukoplakia

- **Prognosis is guarded**
- **10-15% of non-dysplastic leukoplakias will transform to carcinoma if not treated**
- **33% of dysplastic lesions will transform if not treated**
- **30% of leukoplakias will recur, despite clear clinical and microscopic margins**



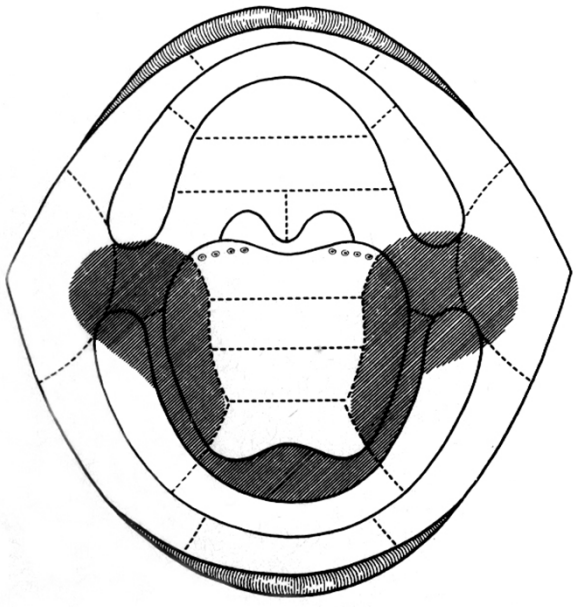


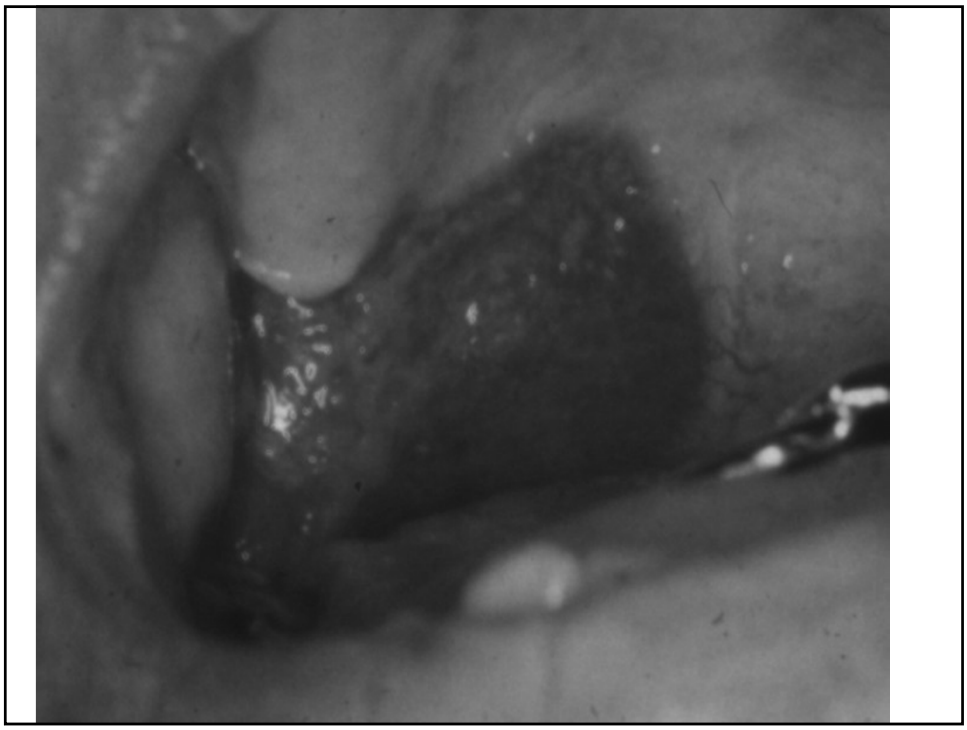
Erythroplakia

- A red patch that cannot be diagnosed as any other condition clinically
- More serious than leukoplakia but much less common
- Microscopically, 90% of these lesions are severe epithelial dysplasia or worse at the time of biopsy

Erythroplakia

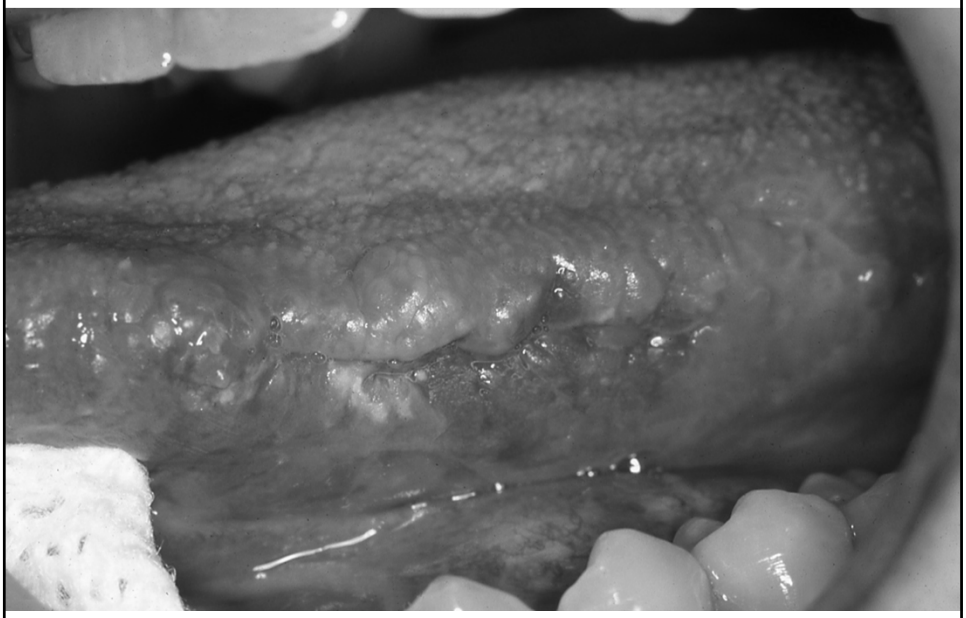
- Same epidemiology, risk factors and risk sites as leukoplakia
- Velvety red, well-demarcated patch, usually affecting the lateral tongue, floor of the mouth or soft palate
- Red appearance often reflects lack of keratin formation, although mixed “red/white” areas can be seen

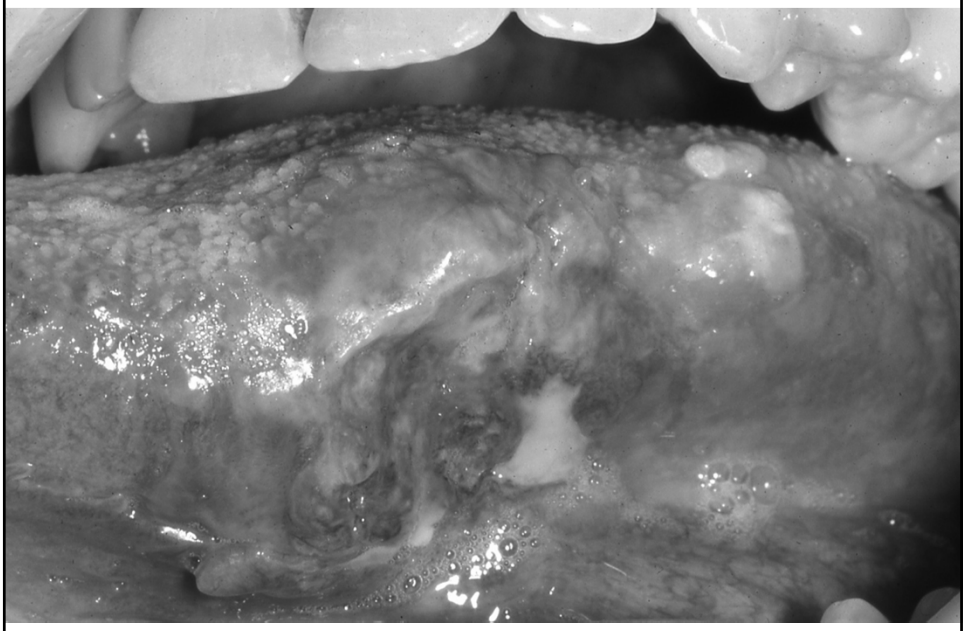




Erythroplakia

- **Treatment and prognosis are similar to leukoplakia having same level of epithelial dysplasia**





Summary

- Remember the differential diagnosis for oral ulcers, leukoplakias or erythroplakias
- For persistent lesions, discuss the role of biopsy in establishing the final diagnosis with the patient
- Clinical follow-up is an essential part of patient management, especially for oral cancer and precancerous lesions

- **Special thanks to Dr. Carl M. Allen for representative clinical images**