CLINICAL STOMATOLOGY CONFERENCE

DNSC D9910.00

September 19, 2007

Red and mixed red-white lesions

Overview

Red lesions
- Erythroplakia
- [Squamous cell carcinoma]

Mixed red-white lesions
- Geographic tongue
- Morsicatio (chewing injury)
- Chemical injuries
- Contact reaction to cinnamon
- [Squamous cell carcinoma]

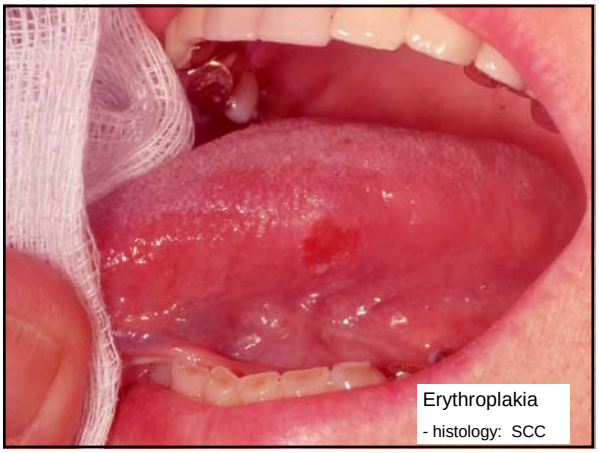
Erythroplakia

- Definition:
  "A ***red*** patch that cannot be clinically or pathologically diagnosed as any other condition"
- Most (~90%) do represent *epithelial dysplasia, carcinoma in situ, or squamous cell carcinoma*
- May be combined with leukoplakic areas = *erythroleukoplakia, speckled leukoplakia*

Erythroplakia

- Etiology: Likely same as oral SCC and leukoplakia
- Incidence: ~ 77x less than leukoplakias
- Gender: Male predilection
- Age: Peak incidence at 65-74 yo
- Site: Floor of mouth, tongue, soft palate
- Clinical:
  Red macule or plaque
  Soft, velvety

* May be combined with areas of leukoplakia *



Erythroplakia
- histology: SCC

Erythroplakia
- histology: CIS

Erythroleukoplakia
- histology: SCC

Erythroplakia

- Differential diagnosis:

1) Trauma
2) Geographic tongue; ectopic erythema migrans
3) Nutritional deficiency, anemia
4) Allergic mucosal reactions
   Contact mucosal reaction

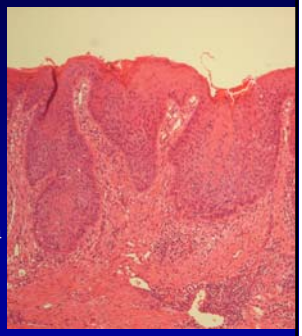
Geographic tongue

Iron deficiency anemia
- generalized

Contact reaction to cinnamon

Erythroplakia

- Histology:
  - lack of keratinization
  - epithelial atrophy
  - underlying chronic inflammation
  - ± dysplasia, usually severe
  - ± carcinoma-in-situ
  - ± squamous cell carcinoma



Erythroplakia

- Treatment:

  Biopsy should be performed
  Treatment guided by histopathologic diagnosis
  Recurrence, multifocality common

  ** Careful long-term follow-up **

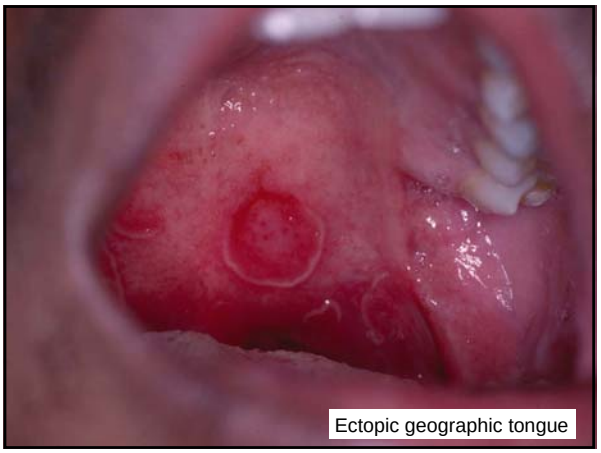
Geographic tongue

- **AKA**: Erythema migrans
- Etiology: Unknown
  ? Hypersensitivity reaction
- Prevalence: 1-3% of population
- Gender: F>M
- Age: No predilection
- Site: Dorsum of tongue
  Can occur in other oral sites, including buccal and labial mucosa, soft palate ("ectopic" geographic tongue)

Geographic tongue

- Clinical features:

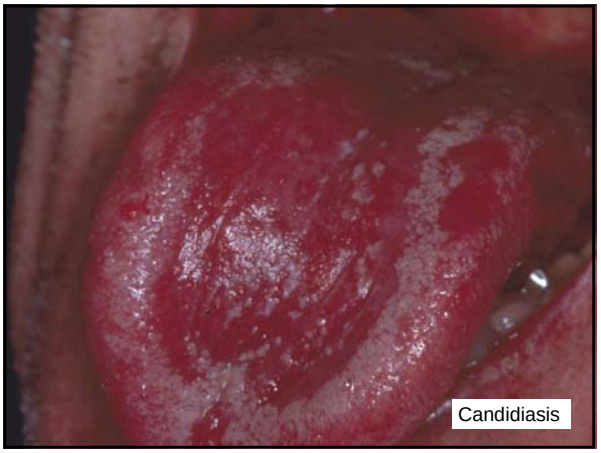
  Zones of erythema surrounded by white, serpentine borders
  Lesions migrate in days to weeks
  Often associated with *fissured tongue*
  ± burning with spicy foods



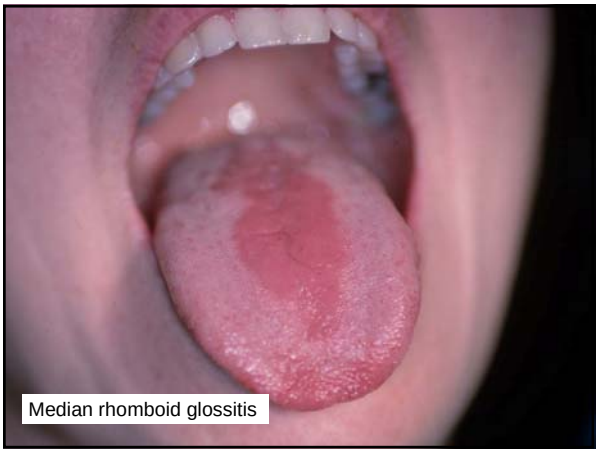
Ectopic geographic tongue

Geographic tongue

- Differential diagnosis:
  1) Candidiasis
  2) Leukoplakia ± erythroplakia
     - rare on dorsum of tongue
  3) Contact allergic reaction
  4) Lichen planus



Candidiasis

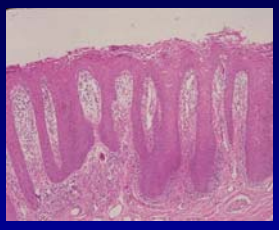


Median rhomboid glossitis

Lichen planus

Geographic tongue

- Histology:
  - ~ psoriasis
  - hyperkeratosis; epithelial spongiosis
  - neutrophils in epithelium
  - lymphocytes and neutrophils in connective tissue



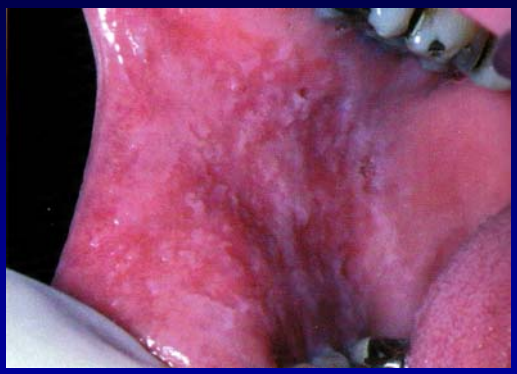
- Treatment: No treatment; reassure patient
  If burning – topical steroids

Morsicatio (chewing injury)

- Etiology: Frictional irritation from chewing habit
  Similar lesions in glassblowers and some musicians
- Risk: Stress; psychological illnesses; edge-edge bite
- Gender: F > M
- Age: Any age
  After age of 35 yo – stress

Morsicatio (chewing injury)

- Site: Buccal mucosa
  Can be seen on la mucosa, lat tongue
- Clinical features:
  White, diffuse
  ± erythema
  Shredded/ragged, macerated appearance

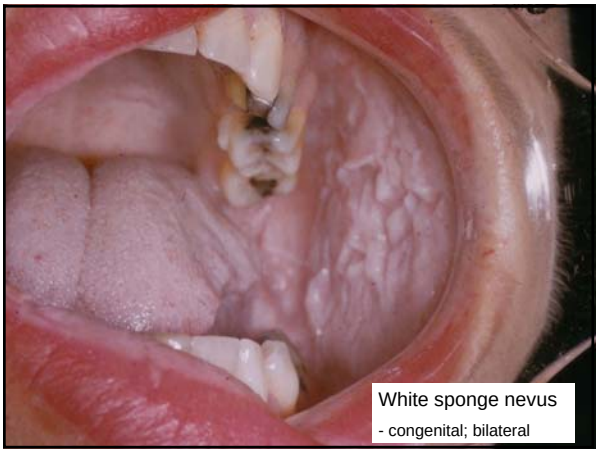


Morsicatio

- Differential diagnosis:
  1) Leukoplakia
  2) Chemical injuries (e.g. aspirin)
  3) Contact stomatitis – allergic; cinnamon
  4) Inherited mucosal disorders
     - White sponge nevus
     - Hereditary benign intraepithelial dyskeratosis

Leukoplakia

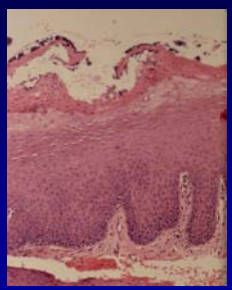
Chemical injury
- aspirin burn



White sponge nevus
- congenital; bilateral

Morsicatio

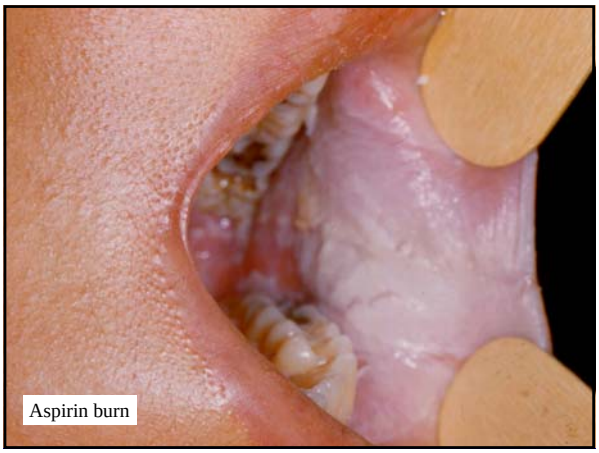
- Histology:
  - hyperparakeratosis
  - ragged surface
  - intercellular edema
  - surface bacterial colonies



- Treatment: None indicated
  Oral acrylic shield

Chemical injuries

- Etiology: Contact with caustic chemicals and drugs (over-the-counter, prescribed)
  Examples: Aspirin, hydrogen peroxide (≥3%), products containing phenol (Anbesol), silver nitrate, endo materials (formocresol, sodium hypochlorite)
- Age and gender: Any
- Site: Any site of chemical/drug contact
- Clinical: White, wrinkled
  Later, white slough with red base
  Ulcerated lesions – fibrinopurulent membrane
  Injection into bone – *bone necrosis*



Aspirin burn

Aspirin burn

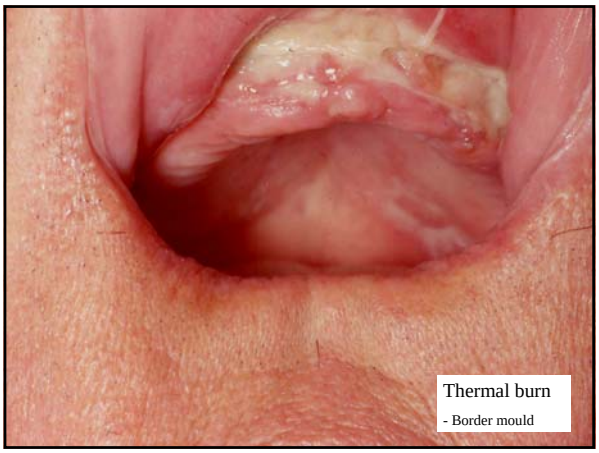
Chemical injury from Commit lozenges

Endo material

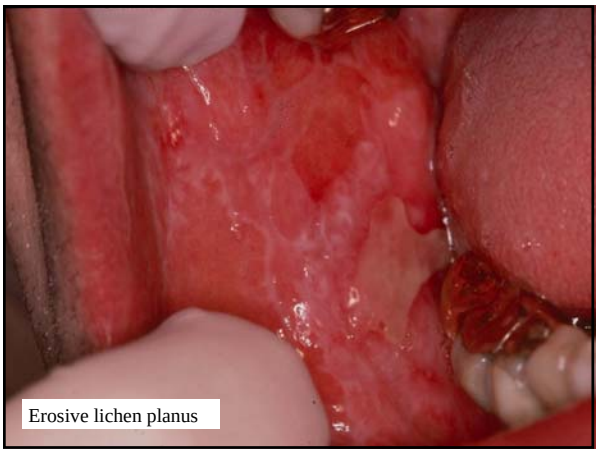
Chemical injuries

- Differential diagnosis:
  1) Candidiasis
  2) Leukoplakia – does not wipe off
  3) Thermal burn
  4) Desquamative gingivitis
  5) Lichen planus; lichenoid reaction
  6) Traumatic ulcer; chronic trauma

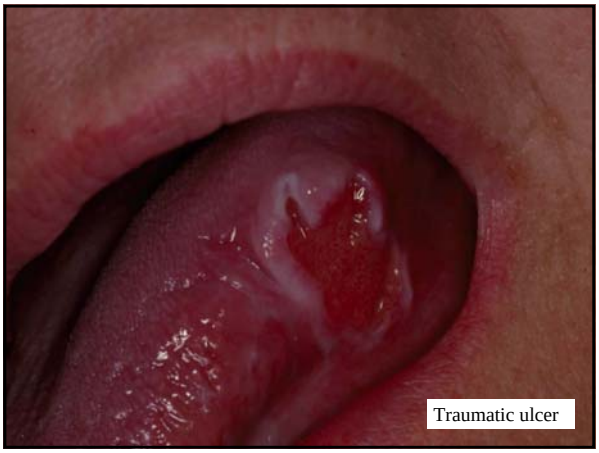
Candidiasis



Thermal burn
- Border mould



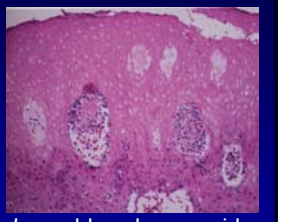
Erosive lichen planus



Traumatic ulcer

Chemical injuries

- Histology:
  - coagulative necrosis
  - acute and chronic inflammatory cells



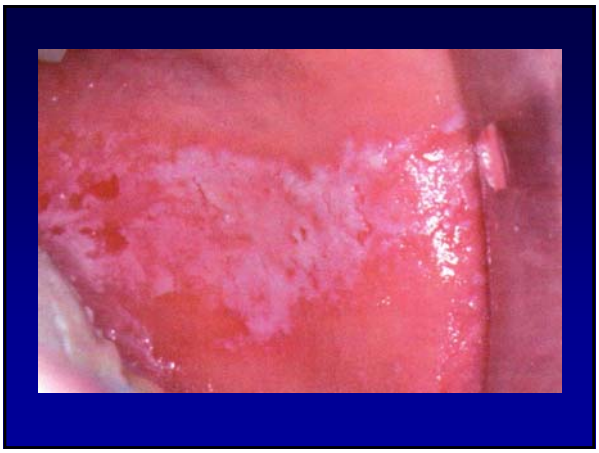
- Prevention: *Endo materials* – rubber dam, avoid excessive injection pressure

  Drugs, chemicals – pt education
- Treatment: Will resolve in 10-14 d

Contact stomatitis - Cinnamon

- Etiology: Mucosal reaction to cinnamon oil
  Prolonged/frequent contact
- Gender: No predilection
- Age: Any
- Site: Gingiva – toothpaste
  Bu mucosa, tongue – chewing gums, candy
- Clinical features:
  Gingiva – enlargement, erythema
  – "plasma cell gingivitis"
  Bu mucosa, tongue – white, ragged surface
  – erythematous base

Plasma cell gingivitis



Contact stomatitis - Cinnamon

- Differential diagnosis:

Gingiva

1) Gingivitis – local factors, desquamative, granulomatous

Buccal mucosa, tongue

1) Morsicatio (chewing injury)
2) Candidiasis
3) Leukoplakia; erythroplakia
4) Oral hairy leukoplakia

Desquamative gingivitis

- mucous membrane pemphigoid

Desquamative gingivitis

- lichen planus

Contact stomatitis - Cinnamon

- Differential diagnosis:

Gingiva

1) Gingivitis – local factors, desquamative, granulomatous

Buccal mucosa, tongue

1) Morsicatio (chewing injury)
2) Candidiasis
3) Leukoplakia; erythroplakia
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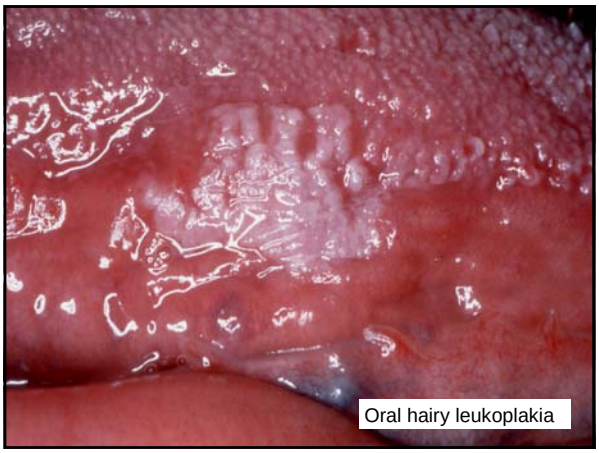
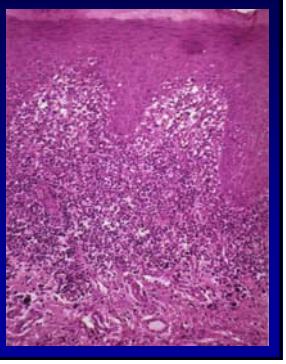

Oral hairy leukoplakia

Contact stomatitis - Cinnamon

- Histology:
  - hyperkeratosis
  - heavy chronic inflammation (lymphocytes, plasma cells, eosinophils)
  - inflammation around blood vessels



Contact stomatitis - Cinnamon

- Treatment:

Disappears after discontinuation of cinnamon products

Will reappear if cinnamon intake resumed