COLD SORES
CANKER SORES
AND
OTHER SORES

HERPETIC
STOMATITIS

• Primary herpetic gingivostomatitis
• Recurrent herpes labialis
• Recurrent intraoral herpes

HERPES VIRUSES
HHV family
• HHV-1 = HSV 1
• HHV -2 = HSV 2
• HHV -3 = Varicella zoster
• HHV - 4 = Epstein-Barr virus
• HHV - 5 = Cytomegalovirus
• HHV - 6
• HHV - 7
• HHV - 8 = virus associated with Kaposi’s sarcoma

HERPES SIMPLEX VIRUS
Type 1 and Type 2
• Antibodies Cross React
• Antibodies to one decrease chances of catching the virus
• Manifestations can be less severe

Primary HSV-1
• 95% of cases are between 6 mos and 5 years
• Primary gingivostomatitis - usually seen by primary care MD
• Typical viral illness
  – Fever, malaise, lymphadenopathy

HERPES SIMPLEX VIRUS
Two of 8 members of the HSV family
HSV 1 - above the waist
HSV 2 - below the waist
• Structurally different
• Antigenically different
Primary HSV 1 in adults

- Less severe
- Very frequently gingival involvement
- Viral symptoms
  - Low grade fever
  - Malaise
  - Lymphadenopathy

Recurrent Herpes Labialis

Recurrent Intraoral HSV

FIXED MUCOSA

Recurrent Intraoral HERPES ZOSTER

- SEVERE PAIN
- UNILATERAL
Recurrent Intraoral HERPES ZOSTER
ZOSTER PULPITIS

ACYCLOVIR
Acyclovir, in doses of 800mg orally 5 times a day (typical dose is 200mg), has been evaluated in 2 large studies as treatment of herpes zoster infections. These data suggest better efficacy vs. 400mg with NO APPARENT INCREASE IN ADVERSE EFFECTS.

Valacyclovir Valtrex® Caplets
• Herpes zoster and HSV 2
• Decreases pain and itching, helps healing, prevents new lesions
• tid for 7 days
• Used for prevention of transmission of HSV2

PRIMARY INFECTION
RX Zovirax Capsules 200mg
Disp: #50
Sig: 1 cap q4h while awake for a total of 5 caps daily for 10 days

RECURRENT INFECTION
RX Zovirax Capsules 200mg
Disp: #25
Sig: 1 cap q4h while awake for a total of 5 caps daily for 5 days

PREVENTION
RX Zovirax Capsules 200mg
Disp: #100
Sig: 1 cap tid
Start 3 days before triggering event
ZOVIRAX OINTMENT

MANY CLAIM PREVENTION OF RECURRENT LESIONS IF APPLIED AT PRODROME

---

Docosanol® (Abreva) is a compound with a unique mechanism of action involving viral fusion inhibition. Docosanol is the first topical antiviral approved for over-the-counter use in recurrent herpes labialis.


---

Testimonial

Abreva®

Docosanol cream 10%  
“Reduces initial size of cold sore and speeds healing time. Works better each subsequent time.”

---

Denavir® (penciclovir) Cream

For recurrent herpes labialis. Claims to heal in 4 1/2 days (used every 2 hours) and reduces pain by 1/2 day. Healed 31% faster than placebo group. May prevent lesion if used at prodrome.

---

Cold Sores vs. Canker Sores

Does It Make A Difference?

---

APHTHOUS STOMATITIS

Immunologic Basis

- Decrease of T helper cells (CD4+) to T suppressor (CD8+) cells
- Increased TNFα
- T suppressor cells predominate in lesions
- Tendency to be “familial” - associated with certain HLA types
Treatment for (simple) canker sores
• Generally does not alter the quality of life
• Many O.T.C. and prescription treatments
  – Silver nitrate
  – Aphthasol™
  – Acid - Debacterol™

APHTHOUS STOMATITIS
• Autoimmune
• Treatment with corticosteroids (or NSAIDs)

Prednisone - use 20mg tabs

24 yo female
Several years of at least one lesion constantly

One week of prednisone

17 yo female-3 years of constant major aphthous lesions

10 days prednisone
MAJOR APHTHOUS GENERAL ATTACK PLAN

1. Break cycle and clear with systemic corticosteroids
2. Prevent recurrence with topical corticosteroids

COLD SORES vs. CANKER SORES

<table>
<thead>
<tr>
<th>LIP</th>
<th>INTRAORAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>FIXED MUCOSA</td>
<td>MOBILE MUCOSA</td>
</tr>
<tr>
<td>VESICULAR</td>
<td>CRATERIFORM</td>
</tr>
</tbody>
</table>

Dr. Erasmus Wilson 1869
Journal of Cutaneous Medicine
• 50 patients in this first report
• 3 had oral involvement

3 MAJOR TYPES OF LICHEN PLANUS
• Reticular
• Atrophic
• Erosive

Lichen Planus
Lichen Planus
Erosive

Look away from the ulcer for evidence of striae

1. Fluocinonide - Lidex
2. Betamethasone - Diprolene
3. Clobetasol - Temovate

EROSIVE LICHEN PLANUS
Treatment Strategy
• If limited, treat first with topical corticosteroids
• More severe - Break cycle and clear with systemic corticosteroids
• Prevent recurrences with topical corticosteroids

Fluocinonide Gel
Rx: Fluocinonide gel 0.05%
Disp: 15gm tube
Sig: Apply as directed 5 times daily

Tell patient (and pharmacist) it is OK to use in the mouth.
Gel vs. Ointment or Cream

Gel is thixotropic
- Liquefies under pressure or movement then re-gels
- Will stay on mucosa longer than ointment or cream
- Low strength corticosteroid and adhesive - waste of shelf space

Fluocinonide gel directions
1. Dry area
2. Very small amount
3. Rub in with finger
4. Don’t eat or drink for 30 min
5. Five times daily

Systemic Corticosteroids Prednisone
- “Dose Pack” - waste
  - Too expensive - do not need prednisilone
  - Directions are incorrect

Systemic Corticosteroids Prednisone (2)
- Rx 20 mg tabs
- All pills must be taken within 30 minutes of waking
- High dose for several days
- Taper vs. no taper
- Dose over 14 days
Systemic Corticosteroids
Prednisone (2)

- Rx 20 mg tabs
- All pills must be taken within 30 minutes of waking
- High dose for several days
- Taper vs. no taper
- Dose over 14 days

Topical Corticosteroid Side Effect:
CANDIDIASIS

Established, but small, risk of squamous cell carcinoma developing in areas of oral lichen planus
1.7% in a recent study

JADA 132:901-909, 2001

Candidiasis as Side Effect of Corticosteroids

- Primarily due to topical corticosteroids
- Local conversion of epithelial cell glycogen to glucose

Short/high burst of systemic prednisone - Most common side effects

- Insomnia - 13%
- Mood swings - 8.5%
- Water retention - 2.5%

JADA 132:901-909, 2001
**LICHENOID DRUG REACTION**

- Non-steroidal anti-inflammatory drugs
- Chlorpropramide (type 2 diabetes)
- Gold salts (arthritis)
- Allopurinol (gout)
- Captopril (ACE inhibitors)

---

**Pemphigus Vulgaris**

**Pemphigoid**

(Benign Mucous Membrane; Cicatricial)

---

**Pemphigoid**

Cicatricial (scarring)

Benign Mucous Membrane

- Classical description is eyes, mouth and genitals
- Vast majority involve only the oral mucosa

---

**Positive Nikolsky Sign**

- Pemphigus
  - Or
- Pemphigoid

---

**Cicatricial Pemphigoid**

Very difficult to treat

1. Topical corticosteroids, scrupulous oral hygiene, chlorhexidine
2. Systemic corticosteroids

**Medical Intervention**

- Dapsone
- Immunosuppressive Agents
Pemphigus Vulgaris
(common pemphigus)

• Fatal if untreated
• Death from infection following loss of epidermis

Pemphigus Vulgaris
Important for Dentists!

• Oral 90%
• Begins as oral 60-70%
• Confined to oral 45%
• Palate and buccal mucosa most common

Pemphigus Vulgaris
Medical treatment necessary

Erythema Multiforme

• Acute onset
• Teens and young adults
• Males > Females
• Often recurrent

Hallmark - “CRUSTED LIPS”

“Bullseye” or “Target” Lesions
Erythema Multiforme

• Immunologically mediated
• Immediate treatment with high dose corticosteroids

Cinnamon

• Contact stomatitis from artificial cinnamon flavoring
• Concentrations of the artificial flavoring are up to 100 times that in the natural spice
• Most common in chewing gum, candy, toothpaste

One Week No Cinnamon