

# Vesicular stomatitis - erosions - ulcers in the oral cavity

## Differential diagnostic remarks

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FAKULTNÍ  
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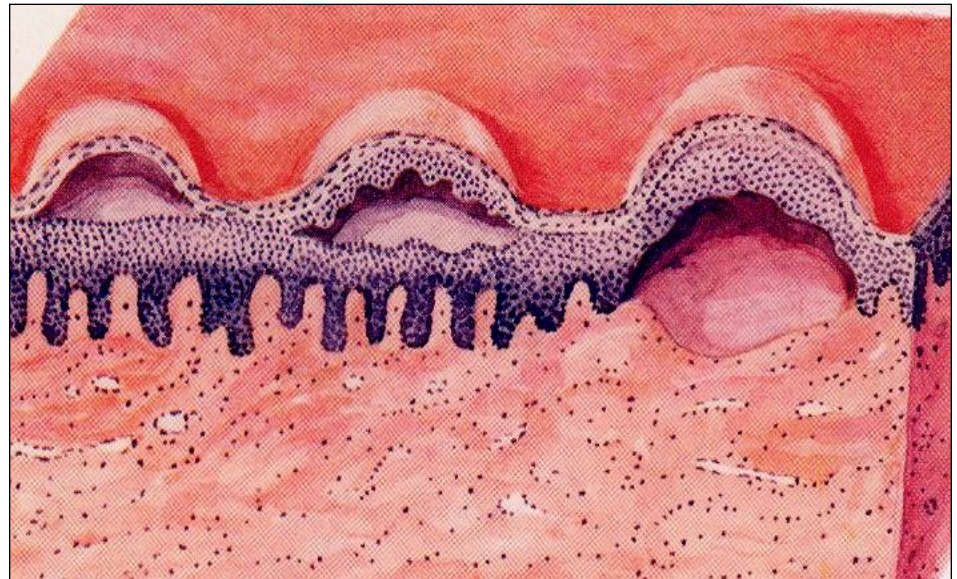
M U N I



**VESICLE** - small blister

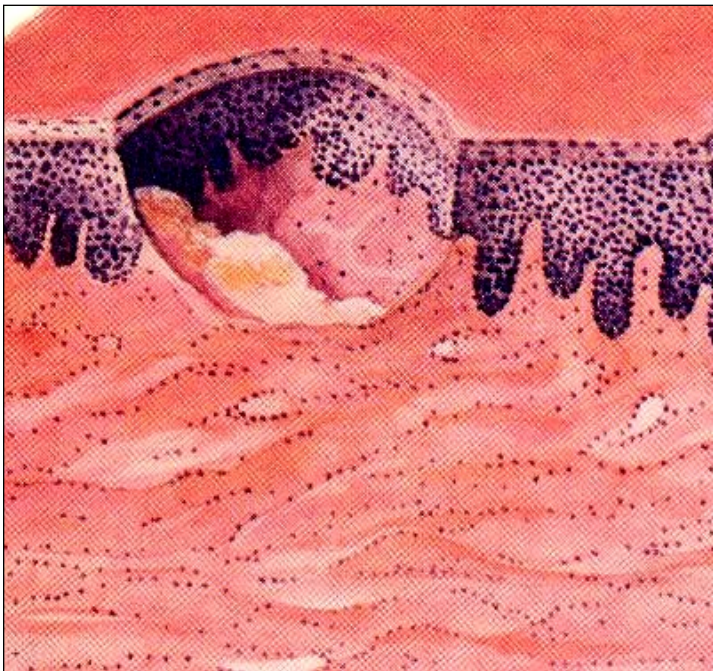
**BULLA** - blister larger than half cm

- separation of tissue
- **intraepithelial**
- **subepithelial**
  
- contains fluid  
(tissue fluid,  
haemorrhagic blister)



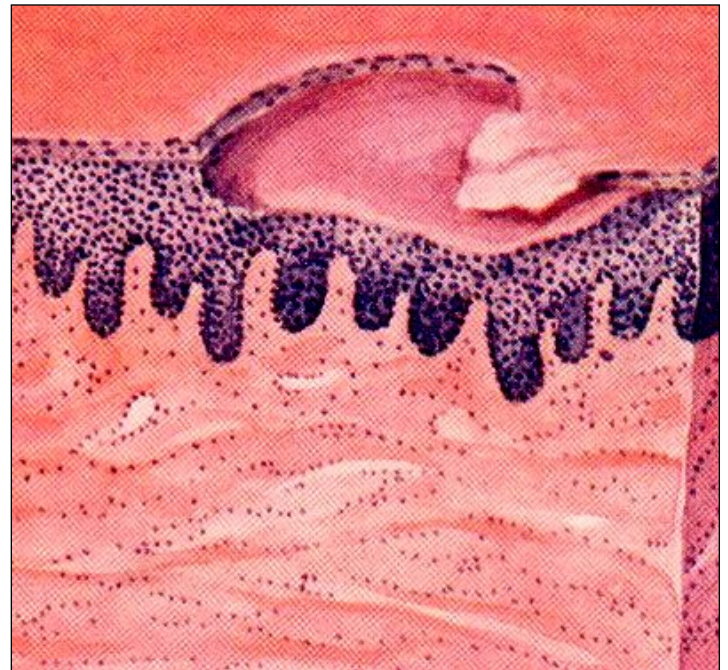
## EROSION

- **Erosion** – surface layer is disturbed, healing without scar



## ULCERATION

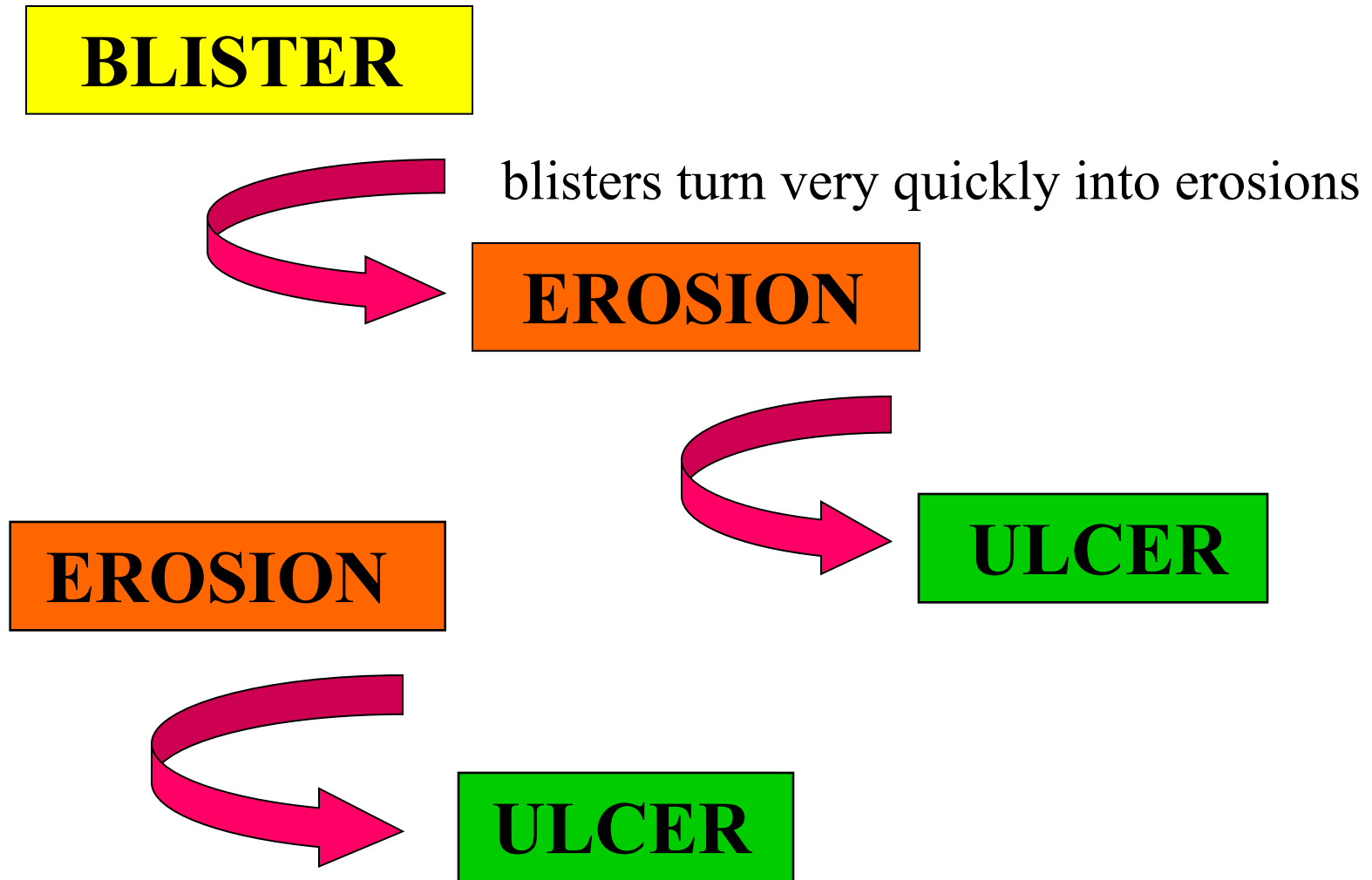
- **Ulcer** – complete loss of epithelium, connective tissue is exposed at the base, scar is possible



# Ulcerated lesion

- superficial (aphtous ulcer)
- deep - seated (squamous cell carcinoma)





- lesions can pass from one form to another - depends on the development of disease

Primary morphae and their possible changes	Examples
blister → erosion	gingivostomatitis herpetica, stomatitis herpetica, herpangina, pemphigus/pemphigoid, multiforme erythema
blister → erosion → ulcer	herpes zoster
erosion	traumatic erosion, burns/corrosion depending on the seriousness
erosion → ulcer	traumatic ulcer, burns/corrosion depending on the seriousness
ulcer	traumatic ulcer, acute necrotising ulcerative gingivitis, syphilitic ulcer, tuberculous ulcer

## Differential diagnosis of the erosions

<b>Physical and chemical factors</b>	
<b>Viral infections</b> <ul style="list-style-type: none"><li>▪ gingivostomatitis herpetica</li><li>▪ stomatitis herpetica</li><li>▪ herpes simplex labialis</li><li>▪ varicella</li><li>▪ herpes zoster</li><li>▪ herpangina</li><li>▪ hand-foot and mouth disease</li></ul>	<b>Immunopathological reactions</b> <ul style="list-style-type: none"><li>▪ toxic-allergic reactions</li><li>▪ multiform erythema</li><li>▪ pemphigus</li><li>▪ pemphigoid</li><li>▪ oral lichen planus – erosive form</li><li>▪ lichenoid stomatitis</li><li>▪ lupus</li><li>▪ recurrent aphthous stomatitis</li><li>▪ Behçet syndrome</li><li>▪ aphthous-like ulcers in GIT diseases</li></ul>
<b>Syphilis I. and II. stage</b>	<b>Haemoblastosis</b>

## Differential diagnosis of the blisters/bullae

### Physical and chemical factors

- traumatic blister of the palate
- burns/corrosion

### Viral infections

- gingivostomatitis herpetica
- stomatitis herpetica
- herpes simplex labialis
- varicella
- herpes zoster
- herpangina
- hand-foot and mouth disease

### Immunopathological reactions

- toxic-allergic reactions
- multiformní erytém – bulózní forma
- pemphigus
- pemphigoid
- oral lichen planus – bullous form
- epidermolysis bullosa



## Differential diagnosis of the ulcers

### Physical and chemical factors

- traumatic ulcer
- decubitus
- neurodystrophy ulcer
- burns
- corrosion

### Infectious diseases

- herpes zoster
- necrotising ulcerative gingivitis/stomatitis
- syphilis I. and III. stage
- tuberculous ulcer
- deep invasive mycoses

### Immunopathological reactions

- toxic-allergic reactions
- multiform erythema
- pemphigus
- pemphigoid
- oral lichen planus – bullous form
- lupus
- recurrent aphthae (type major)

### Hematopoietic system diseases

- haemoblastosis
- lymphomas
- agranulocytosis

Carcinomas, other exulcerated tumours, metastases

Necrotising sialometaplasia of the hard palate

# Patient history

<b>Family history</b>	Family predisposition to the disease
<b>Personal history</b>	<p>Is the patient in the care of other doctors - why?</p> <p>Hospitalization, surgery, complications</p> <p>Pregnancy</p> <p><b>Health problems</b></p> <p>(heart, blood pressure, bleeding, DM, thyroid gland, stomach and intestines, kidneys, liver, infectious hepatitis; metabolic, immune, hormonal disorders)</p> <p><b>Skin disease</b></p> <p><b>Allergy</b></p> <p><b>Medication</b> (intolerance, side effects)</p> <p><b>Smoking</b> and other bad habits</p>

# Why is the patient coming? Who sent him? Type of trouble?

## Current disease

### Time data:

- when did the trouble arise?
- how long do they last?
- have they appeared for the first time or repeatedly? seasonality?

### Course and development of symptoms

- development rate (acute, chronic)
- pain (spontaneous, on stimulus), burning
- bleeding
- salivation disorders
- foetor ex ore

### Relation of the first symptoms to

- external factors (medicines, cosmetics, dental treatment, dental restorations and dentures)
- internal factors (general illness, immune status, infection, nutrition)

### Intensity of symptoms

- of local symptoms
- of general symptoms (are problems in the oral cavity accompanied by general symptoms?)

### Previous treatment and its effect

# Blister, Erosion, Ulcer - history

- **Age:** child – adult – older person ?
- **Time:** when the disease occurred, how long it has lasted, does it occur for the first time or repeatedly ?
- **Is it associated** with external and internal factors (skin diseases, infectious diseases, allergies, drugs, smoking, alcohol...) ?
- local symptoms ? - general symptoms ?
- **Clinical course** of the lesion, speed of the development (acute – chronic) ?  
increase - decrease in size, remain stable ?

# Blister, Erosion, Ulcer - history

- **subjective** complaints ?
  - painful/painless
  - bleeding
  - **intensity** of symptoms
- are there aphtous ulcers in history ?
- previous treatment ?

# Blister, Erosion, Ulcer - examination

- is it localized **solitary** lesion or **multiple** lesion or **diffused** lesion ?
- do lesions **merge in** greater lesion ?
- is their **symmetry** of lesions ?
- **consistency**
  - **size** of formations
  - the **mobility** and **relationship** to the surrounding tissues

# Blister, Erosion, Ulcer

- serious ? – no serious ?  
malignant changes, systemic diseases ?
- oral mucosal ulcers can be associated with  
variety of systemic diseases (can be initial clinical  
manifestation)
- if oral mucosal ulcer persists for more than  
2 weeks following appropriate treatment -  
biopsy is indicated

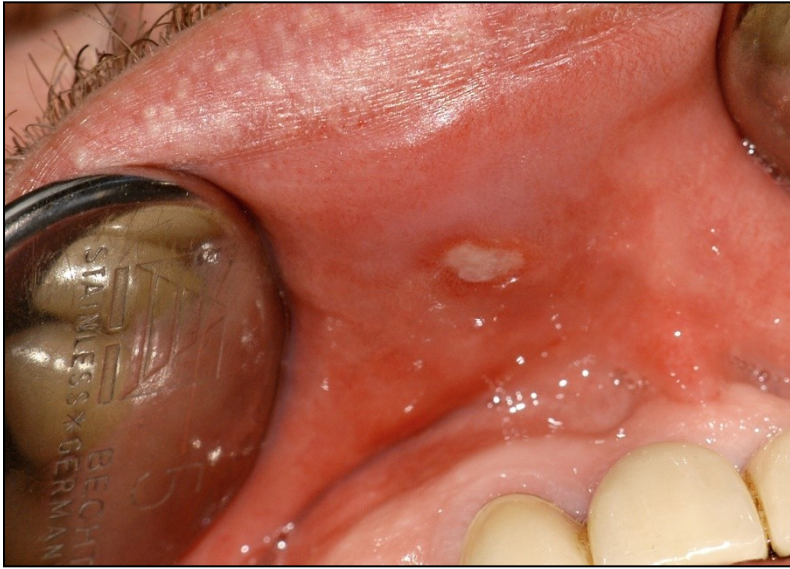
# Blister, Erosion, Ulcer – history, examination

- solitary - multiple?
- merging - solitary lesions?
- painful - painless?
- acute - chronic?
- children - adults - older age?
- general symptoms?
- skin lesions?
- aphtous ulcers in history ?
- consistency? size? localization?





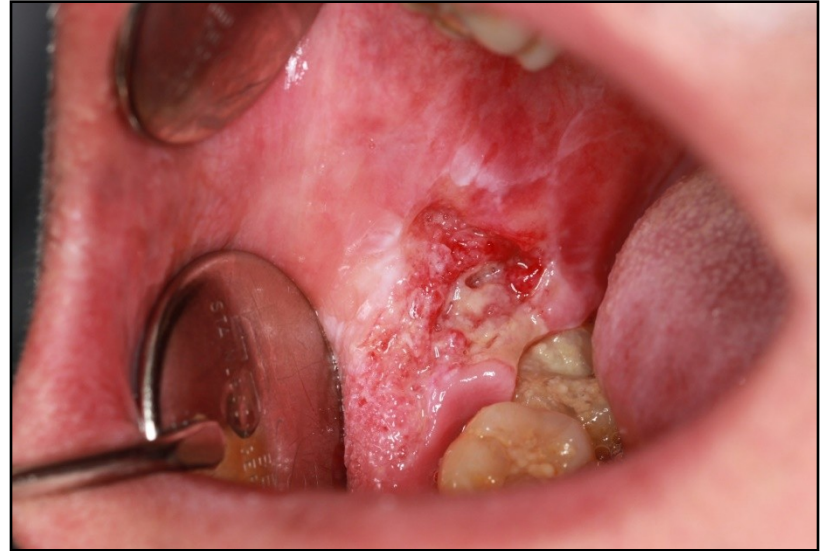
# Solitary - multiple?



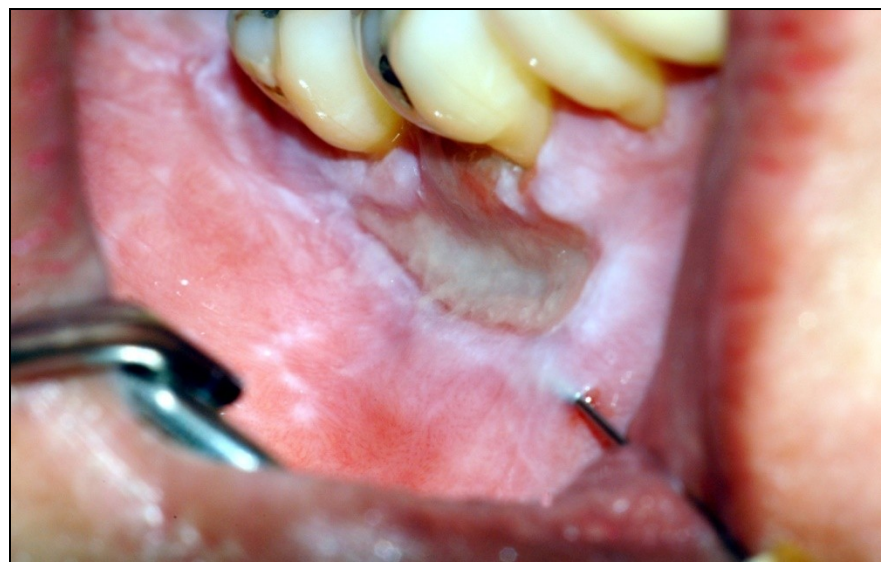
# Merging - solitary lesions?



# Painful - painless?



# Acute – chronic?



# Child – adult – older person ?



# Systemic symptoms ?



# Are skin lesions present?



# Are skin lesions present?

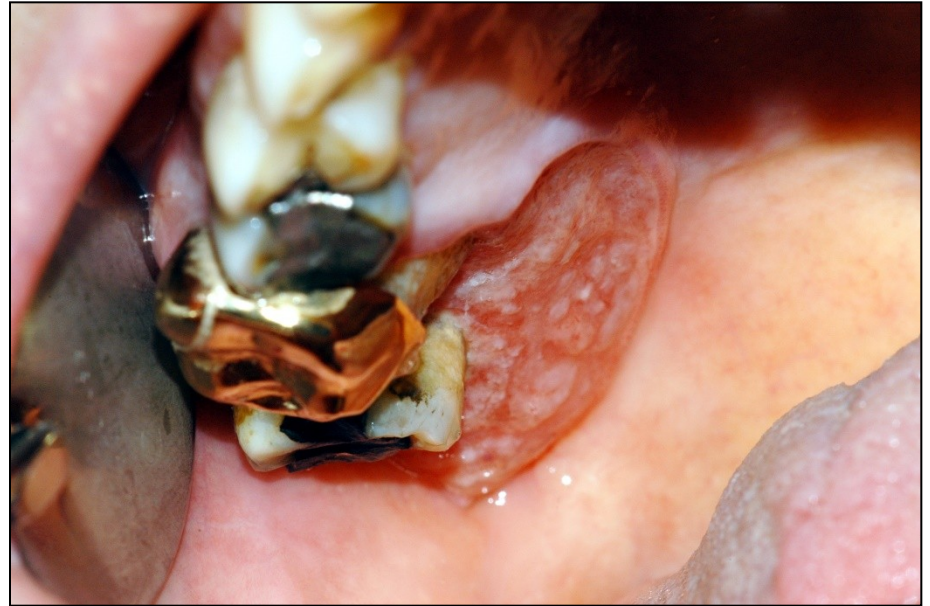
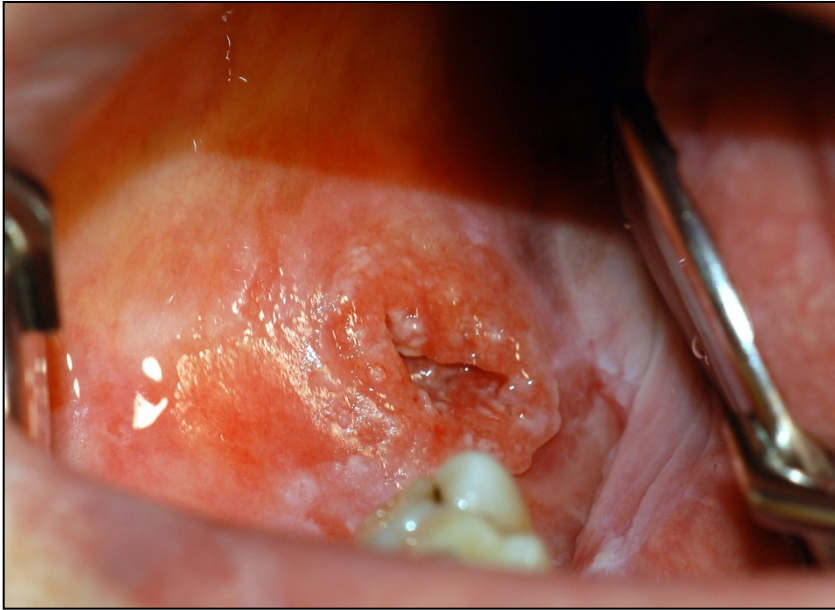




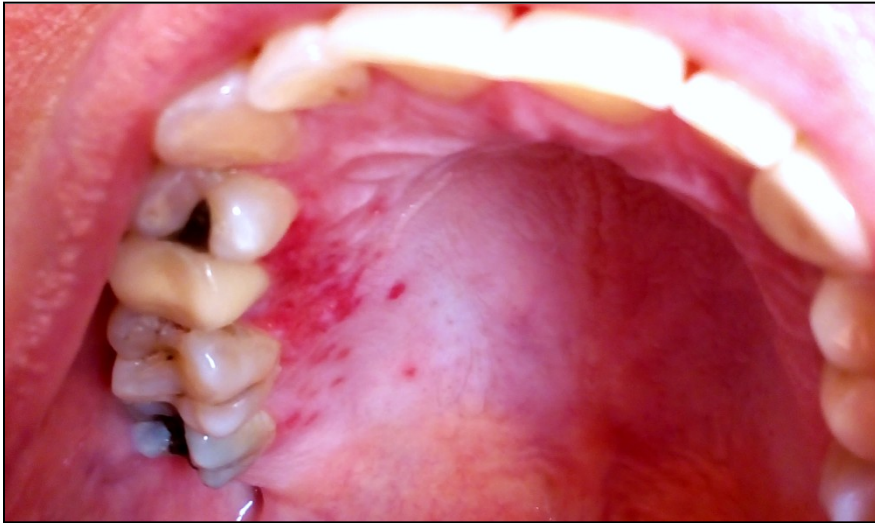
# Aphthous ulcers in history ?



What is the consistency of the lesions?

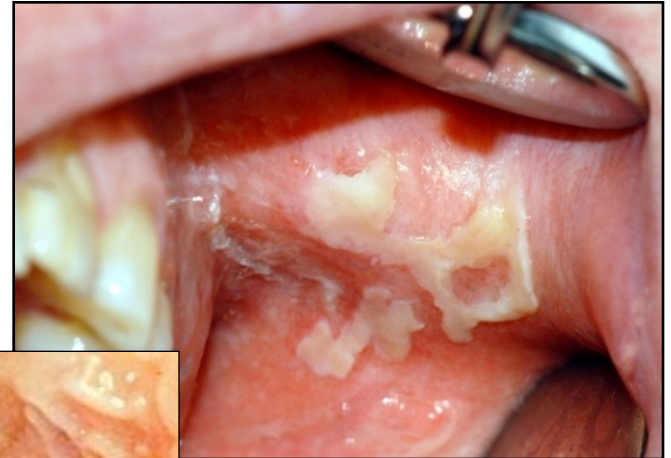


What is the size and location of the lesions?



# Erosion/ulcer non specific tool for distinguishing:

- oval form – endogenous cause
- irregular form – exogenous cause
- multiple form – viral infection



# Lip red (lip vermilion)

Solitary lip lesion or oral cavity is it also affected?

- Traumatic ulcer
- Actinic cheilitis
- Squamous cell carcinoma
- Viral diseases
- Group of „bullous diseases “
- Syphilis / TBC
- Deep fungal infection





syphilis



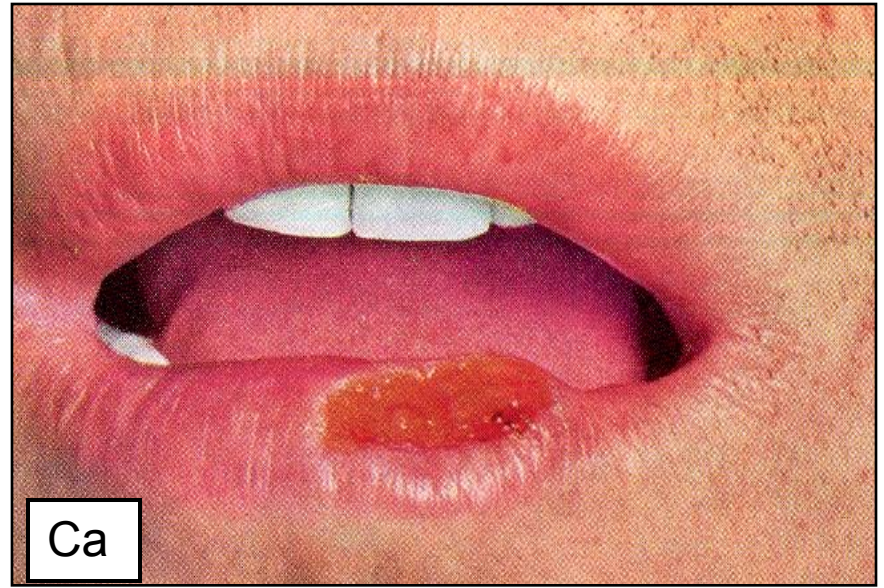
HSV



pemphigus



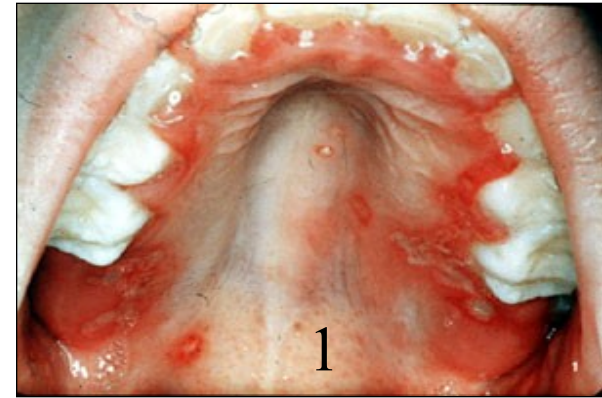
VZV



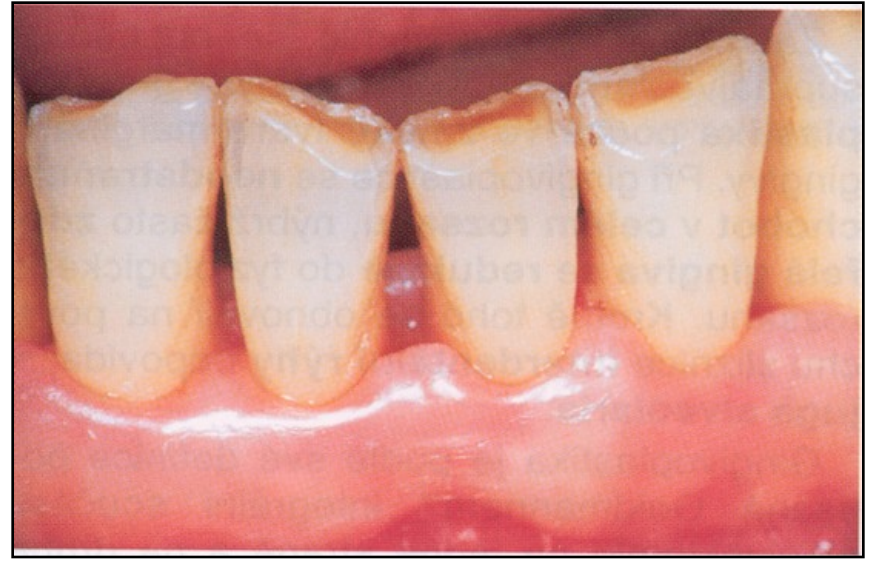
# Gingival lesions

Solitary gingival lesion or oral cavity is it also affected?

- External causes - traumatic ulcer (denture , related, OH,...)
- Primary herpetic gingivostomatitis
- Mononucleosis
- Necrotizing ulcerative gingivitis
- Desquamative gingivitis (OLP, P-P)
- Agranulocytosis
- Leukemia, lymphoma
- Squamous cell carcinoma



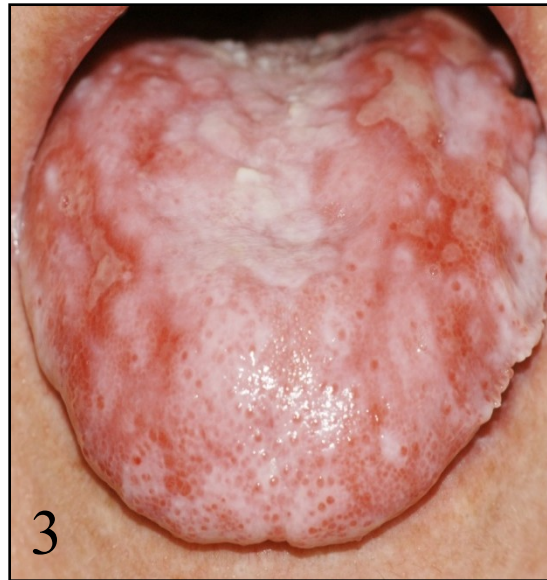
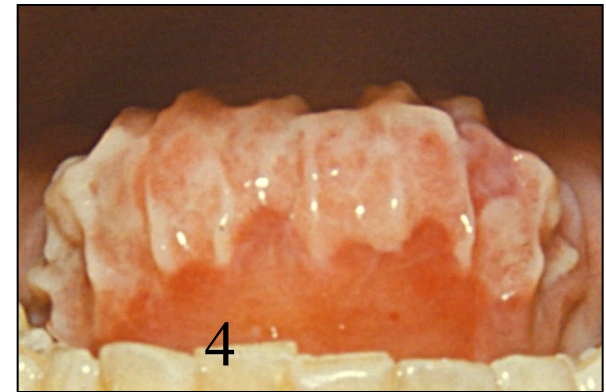




# Dorsum of the tongue

Solitary lesion or oral cavity is it also affected?

- External causes – trauma, burning
- Infection
- Group of „bullous diseases“, EEM
- Oral lichen planus – bulous, erosive
- Syphilis / TBC
- Squamous cell carcinoma



# Diff. dg .: large/extensive erosions covered by fibrin pseudomembranes

- Erythema multiforme
- Pemfigus/pemfigoid
- Oral lichen planus – bulous, erosive
- Alergic/toxic reaction
- Drug reaction
- Burns



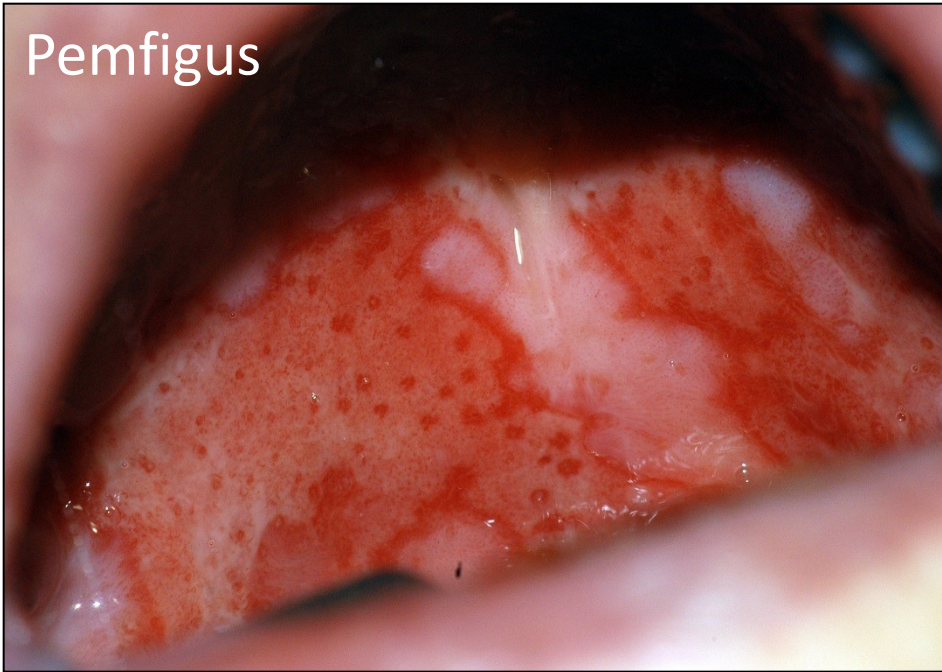
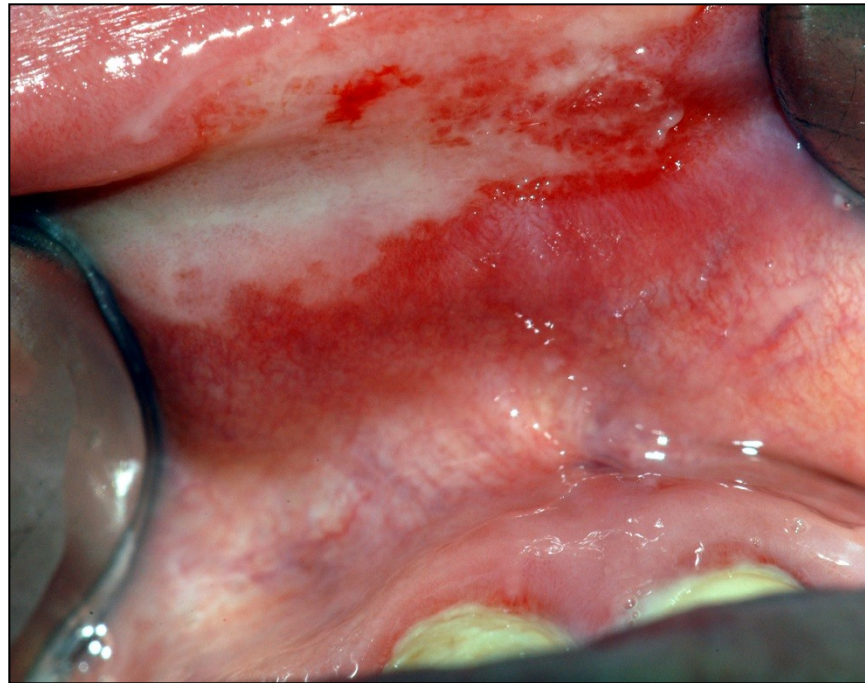
Erythema multiforme

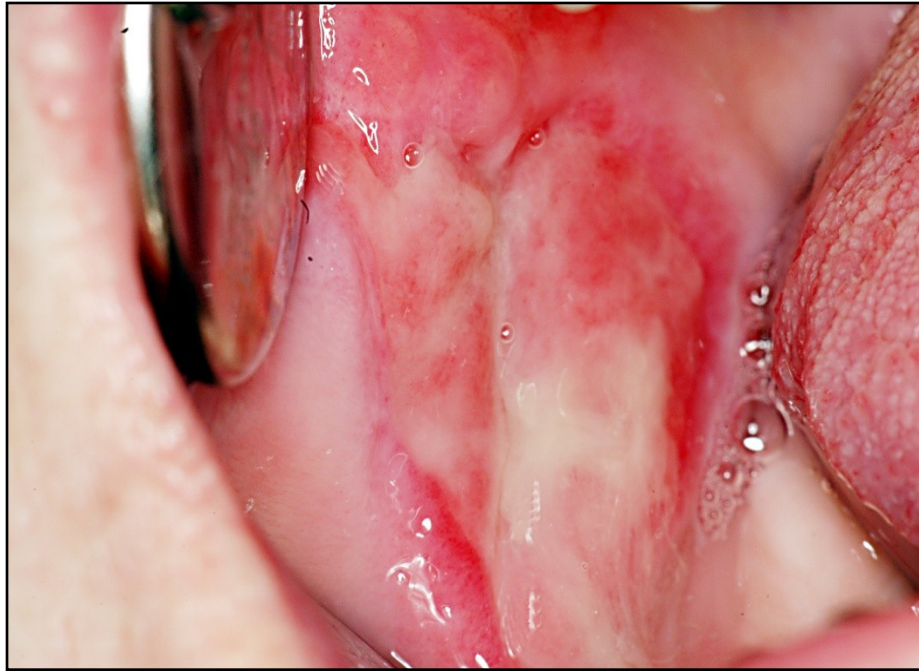
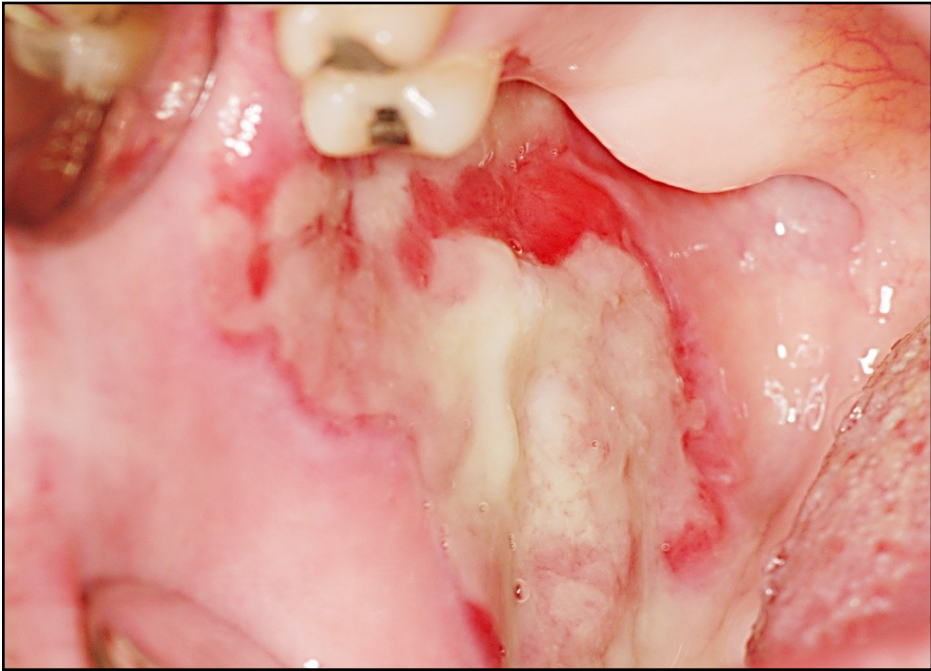




Oral lichen planus





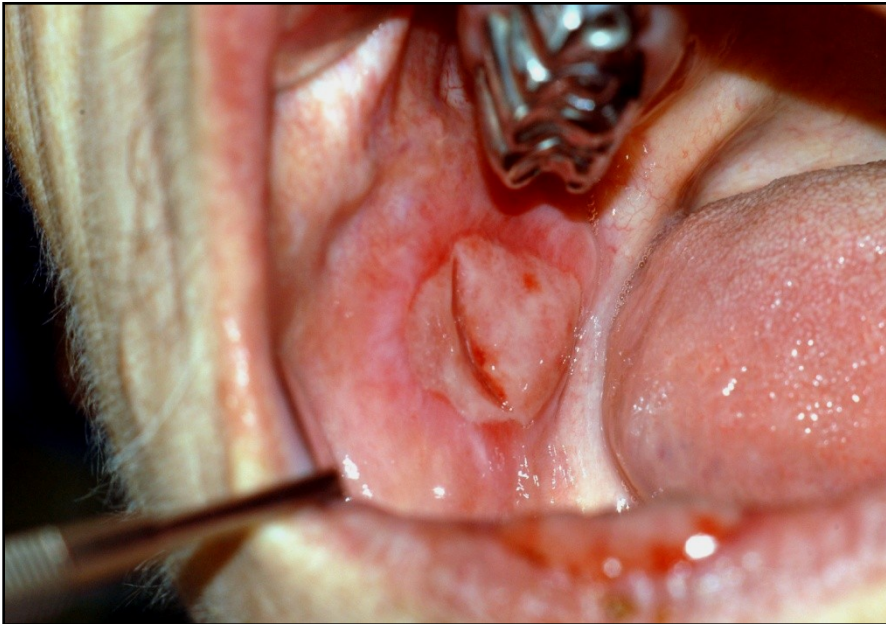


Drug reaction- MTX





Drug reaction- MTX





# Red lesions

- the epithelium is thinner than normal - **atrophy**
- epithelial damage - **erosion** (ruptured blister)
- **inflammation** (more blood vessels in the submucosa), burning discomfort
- **bleeding** into the submucosal tissues

- Atrophic glossitis
  - dietary deficiency or poor absorption of nutritional components (Fe, vit B12, folic acid) which are essential for the normal maturation of oral epithelium
  - Sjögren's syndrome



B12 deficiency

- **Lingua geographica**
  - etiology is unknown
  - hypersensitivity, hormonal imbalance, emotional stress may predispose
  - may be associated with fissured tongue



- **Median rhomboid glossitis**
  - developmental defect of the dorsal tongue
  - clinical manifestation of chronic erythematous candidiasis
  - erythematous rhomboid-shaped of papillary atrophy on the midline
  - associated with intermittent burning discomfort

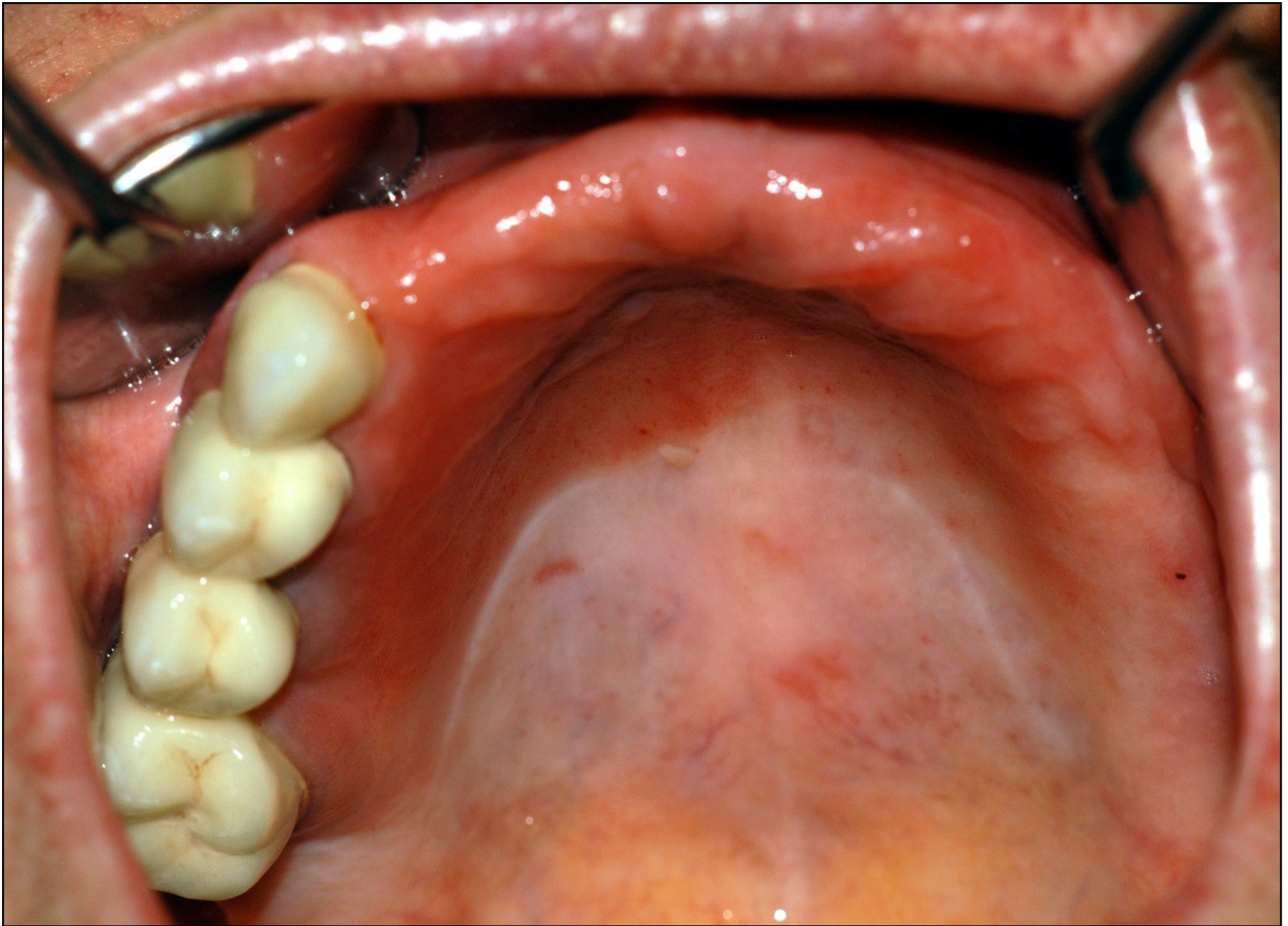


- Erythematous candidiasis (acute, chronic)

- infection of *Candida* species
- systemic broad spectrum antibiotics
- ill-fitting dentures
- systemic predisposing factors

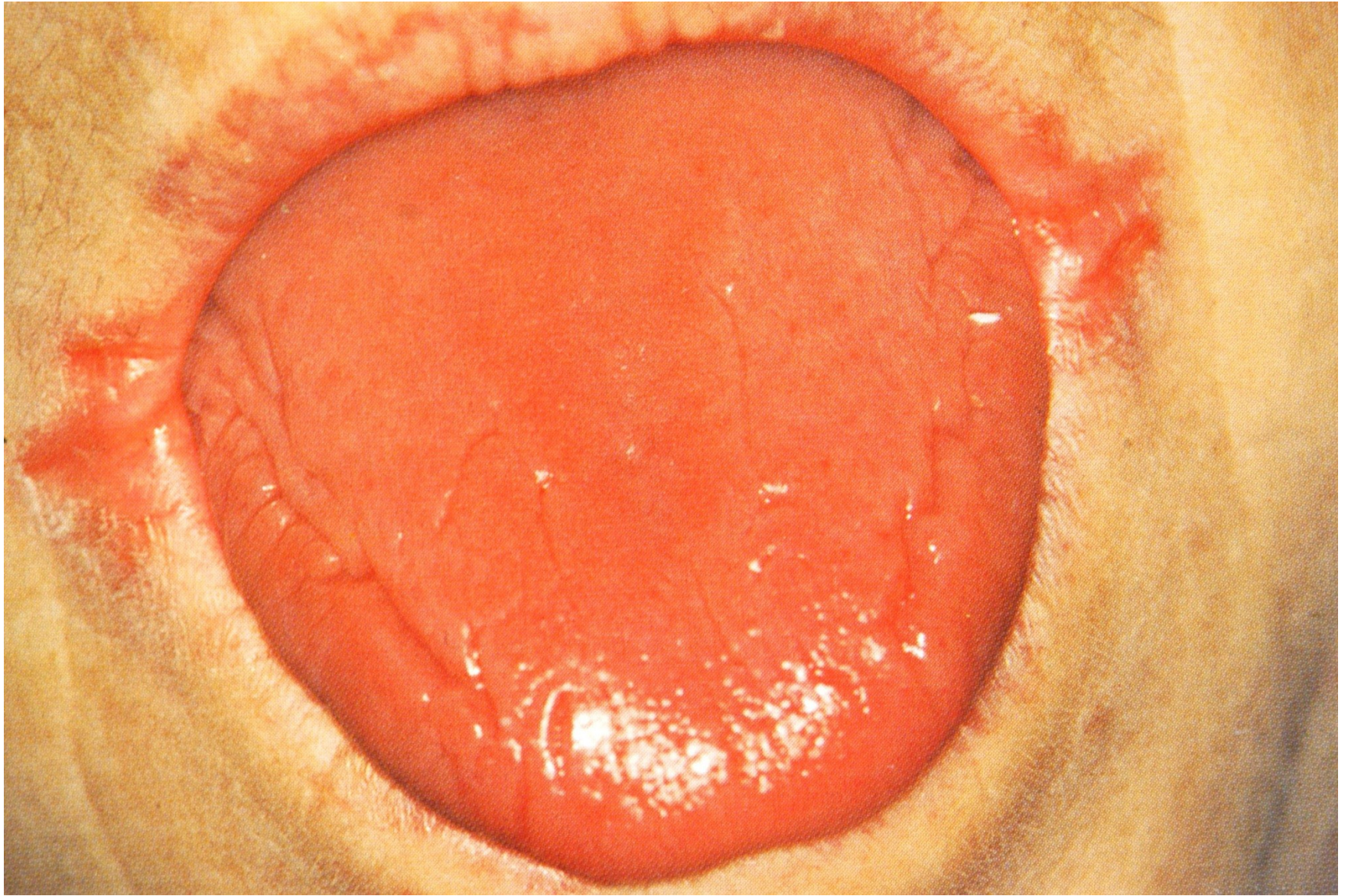
- mucosal erythema
- burning discomfort
- dorsal tongue  
and palate





- Angular cheilitis

- infection of the mucosa at the corners of the mouth by *C. albicans*
- bacterial infection
- nutritional deficiency (Fe, vit B)
- chronic irritation from habitual licking of the corners of the mouth
- loss of vertical dimension (associated with ill-fitting dentures)



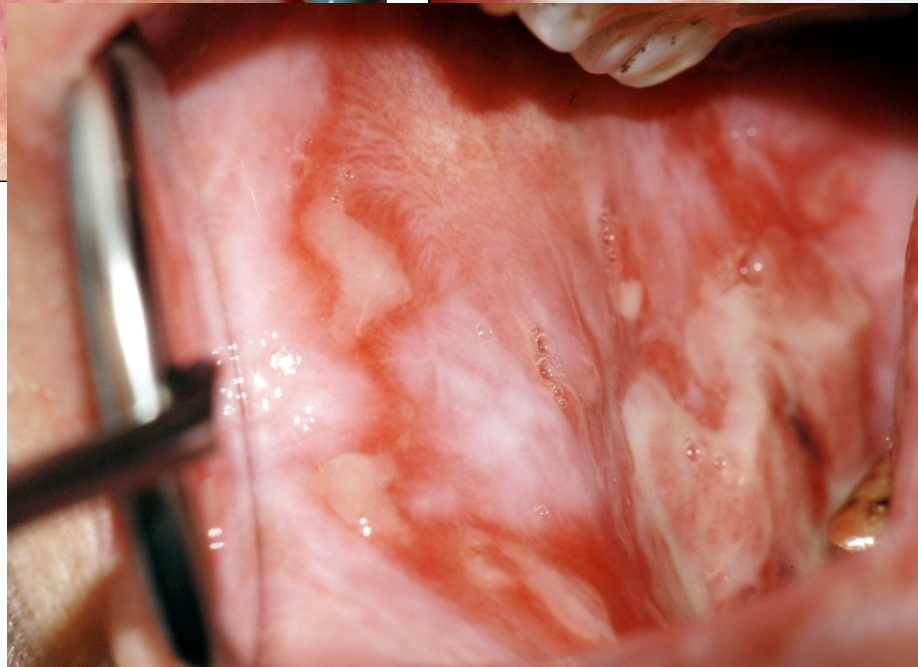
Plummer - Vinson sy



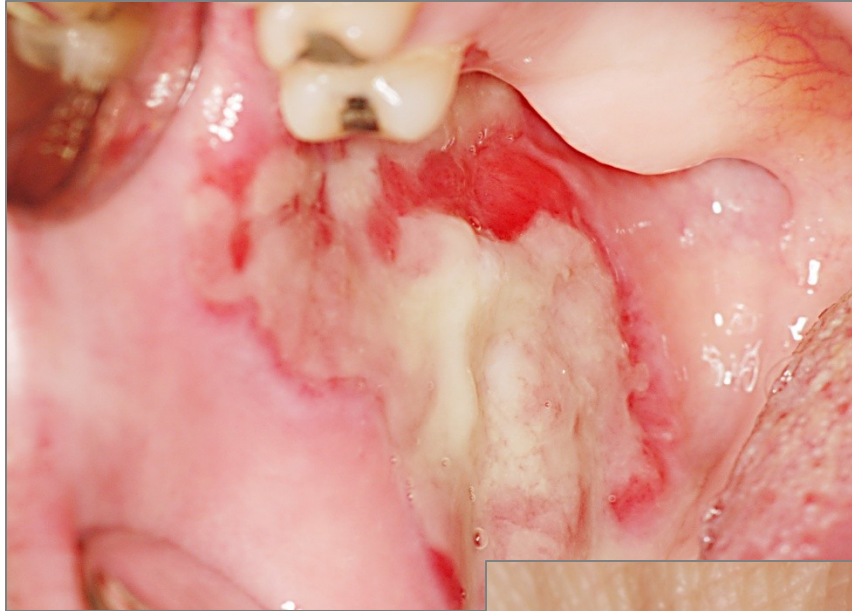
# Pemfigus – Pemfigoid - Lichen



# Lichen planus - atrophic, erosive type



# Drug reactions (EEM) - methotrexat



- Toxic/allergic reaction
  - allergic contact stomatitis (IV. type)  
(circumscribed erythematous patches at the site of contact with allergen)
  - drug stomatitis (I. type)
  - toxic reaction



Amoxicillin



NSAID

# Allergic contact stomatitis



Eugenol

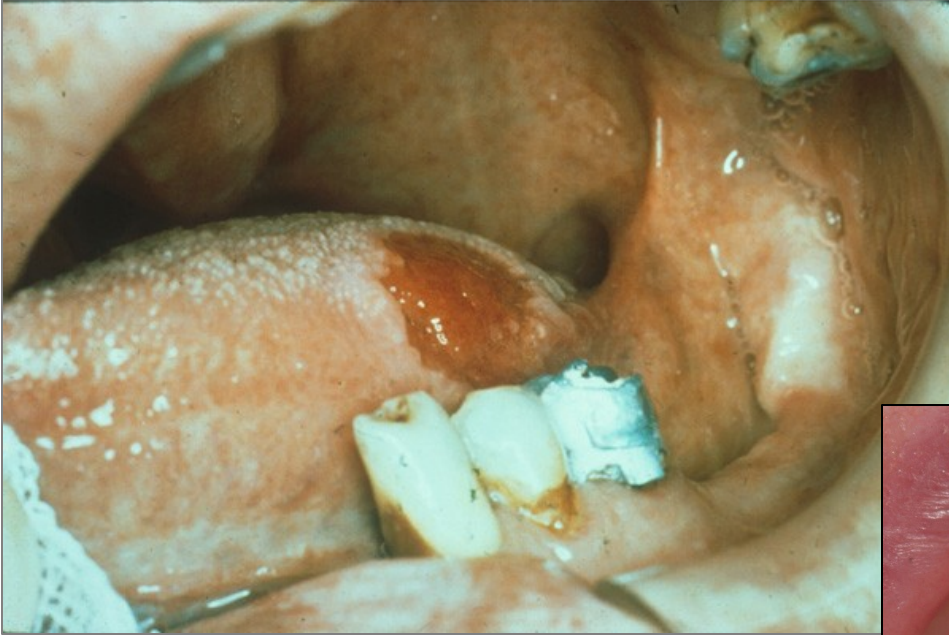


MMA



Latex

- **Erythroplakia** - rare, premalignant process



- **Submucosal hemorrhages** - injury, hemorrhagic diatheses

**Petechiae** – multiple, small, red spots

**Ecchymosis** – larger, more diffuse, red macules with irregular margins

**Hematoma** – circumscribed red nodule



# Drug reactions - toxic reaction

