VesiculoBullous Lesions

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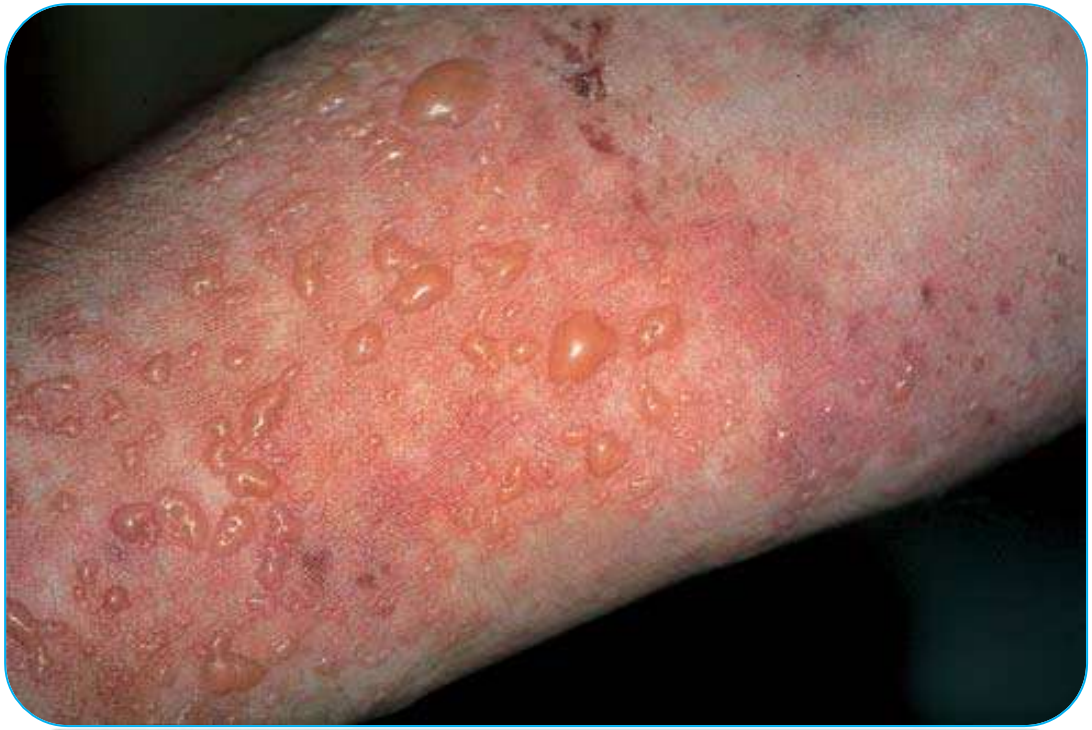


Terminology

- *Vesicles*: these are elevated blisters containing clear fluid that are less than 1 cm in diameter.
- *Bullae*: these are elevated blisters containing clear fluid that are greater than 1 cm in diameter.
- *Erosions* : these are red lesions often caused by the rupture of vesicles or bullae.
- *Pustules*: these are blisters containing purulent material.
- *Ulcers*: these are well-circumscribed, often depressed lesions with an epithelial defect that is covered by a fibrin clot, causing a yellow –white appearance.

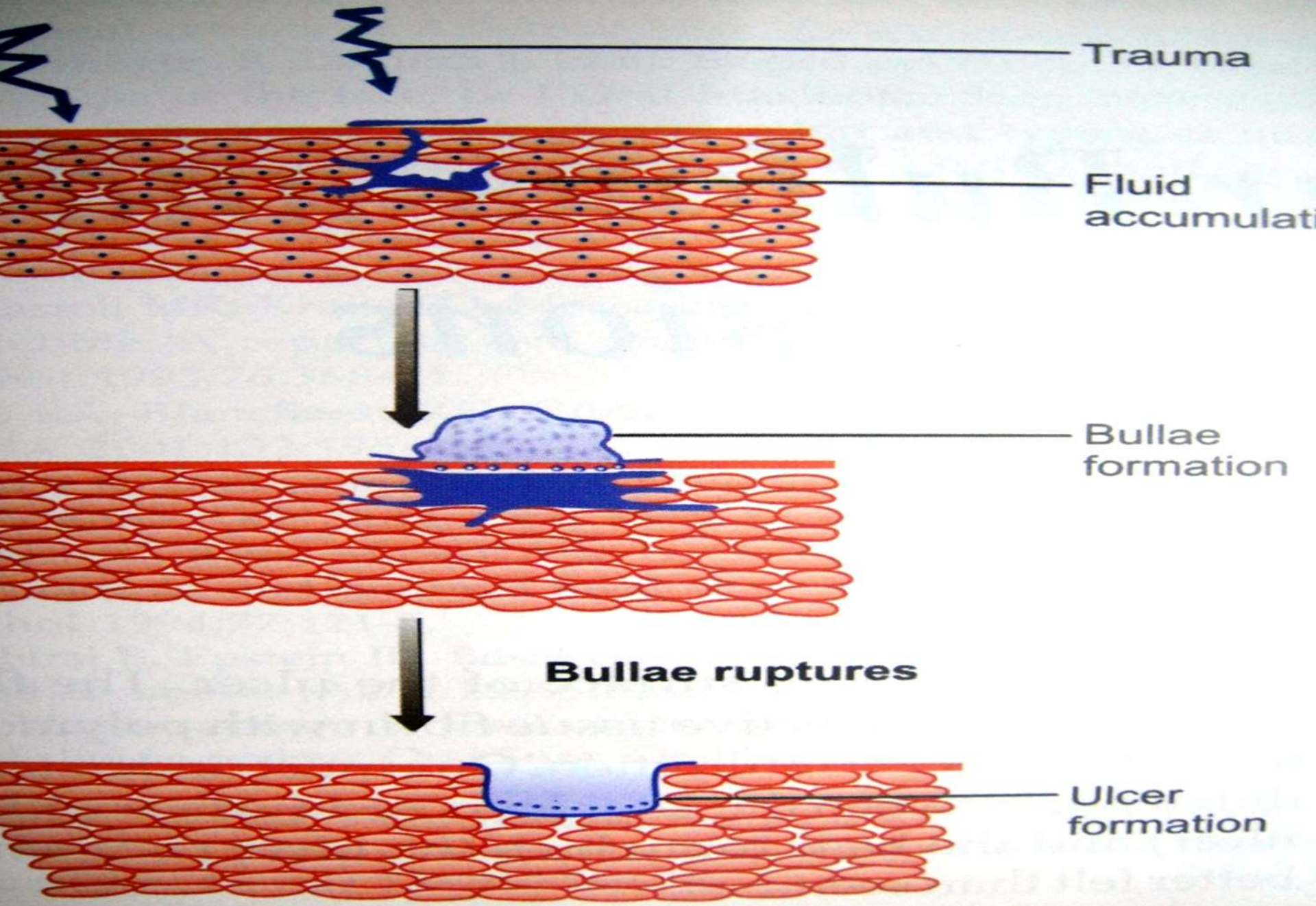
Terminology

- Macules.*These are well- circumscribed,flat lesions that are noticeable because of their change from normal skin or mucosa color.*
- Papules. *These are solid lesions raised above the skin or mucosal surface that are smaller than 1 cm in diameter.*
- Plaques. *These are solid raised lesions that are greater than 1cm in diameter; they are large papules.*

Formation of ulcer

An ulcer consist of

- Margins.
- Edges : five common types:-
  - Undermined edge-*tuberculosis ulcer.*
  - Punched out edge- *gummatous ulcer.*
  - Sloping edge-*traumatic ulcer.*
  - Raised beaded edge- *rodent ulcer.*
  - Rolled out edge-*malignant ulcer.*
- Floor.
- Base



g. 17-1: Formation of ulcer (diagrammatic representation).

Formation of ulcer

- The life cycle of an ulcer consists of three phases:
- Extension.
- Transition.
- repair

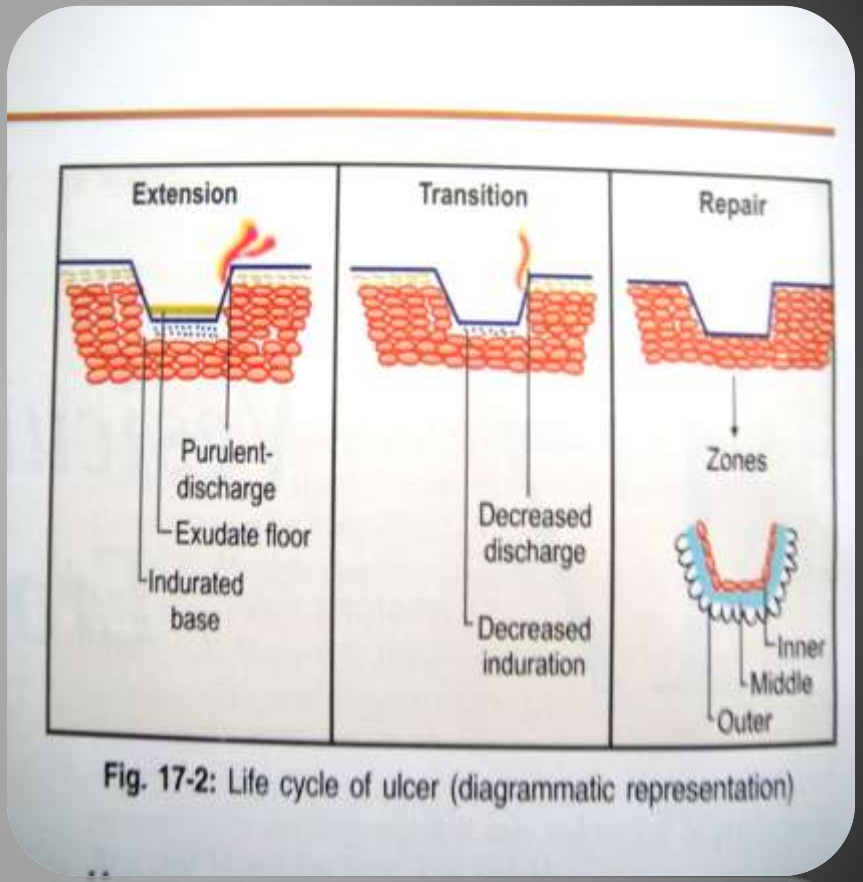


Fig. 17-2: Life cycle of ulcer (diagrammatic representation)

VesiculoBullous Lesions

You should:

- *Know the potential causes for oral vesicles or bullae.*
- *Know the features of the main diseases producing oral vesiculo-bollous lesions.*

Causes of vesiculo-bullous diseases

- *Traumatic injury.*
- *Drug reactions.*
- *Viral infections.*
- *Genetic disorders.*
- *Autoimmune conditions.*

Viral Infections(acute multiple lesions)

- *Primary Herpetic Gingivostomatitis*
- *Secondary herpetic Gingivostomatitis*
- *Herpes Zoster*
- *Herpangina*
- *Hand-Foot and Mouth Disease*

➢ IMMUNOLOGICALLY MEDIATED PROCESS TRIGGERED BY DRUGS :

- *Erythema Multiforme*

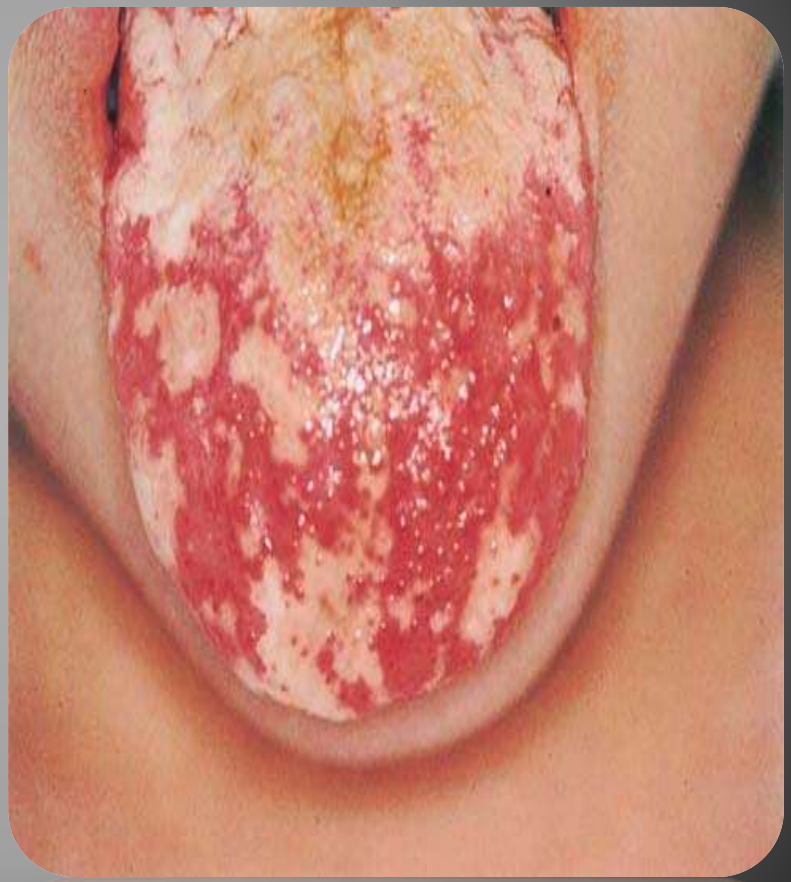
Stevens-johnson Syndrome

Immune-Mediated Diseases (chronic multiple lesions)

- *Pemphigus*
- *Cicatricial Pemphigoid*
- *Bullous Pemphigoid*
- *Pemphigoid Gestations*
- *Linear IgA Disease*
- *Dermatitis Herpetiformis*
- *Bullous Lichan Planus*
- *Epidermolysis Bullosa*
- *Epidermolysis Bullosa Acquisita*
- *Angina Bullosa Hemorrhagica*

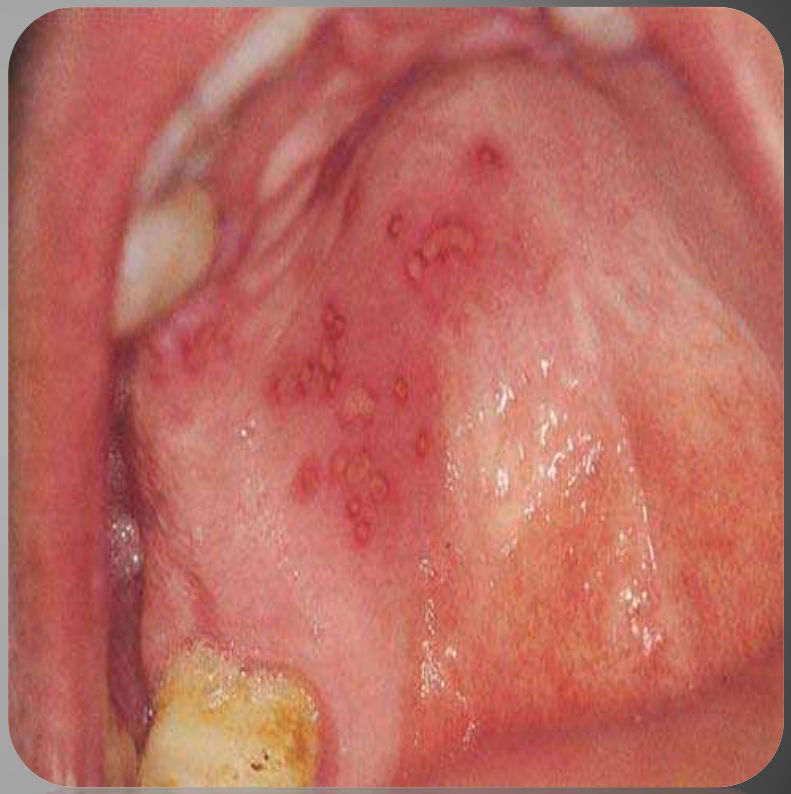
Primary hrepetic gingivostomatitis

- *Viral infection caused by (HSV-I)and rarely(HS-2).*
- *Red, edematous lesion with numerous coalescing vesicles, rapidly rupture.*
- *Acantholysis,nuclear clearing and nuclear enlargement, termed as ballooning degeneration*



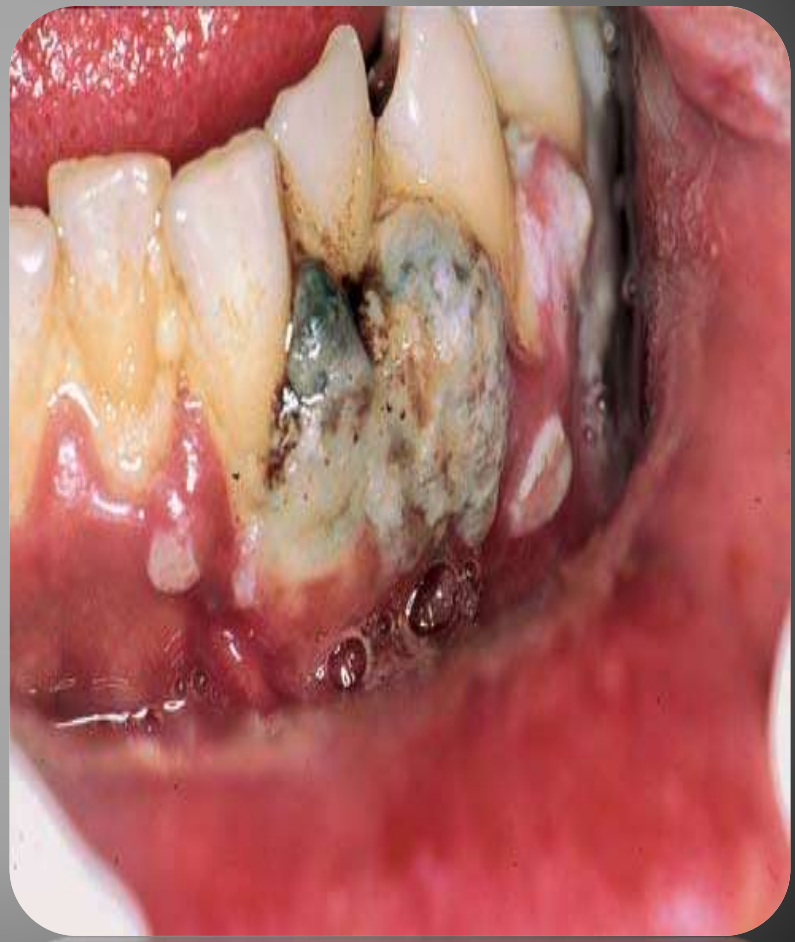
Secondary herpetic stomatitis

- Reactivation of HSV-1.It is commonly precipitated by fever, trauma, cold, heat, sunlight, and emotional stress and HIV infection Clinically, the lesions present as multiple small vesicles arranged in clusters. The vesicles soon rupture. Treatment symptomatic



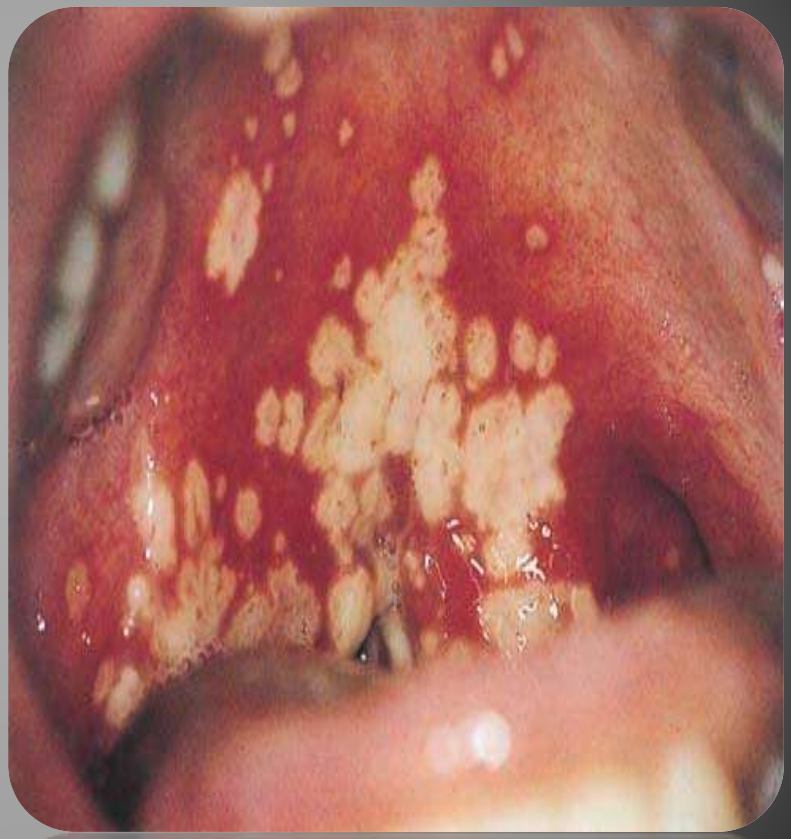
Herpes Zoster

- Reactivation of varicella – zoster virus. Predisposing factors for virus are AIDS, leukaemia ,lymphoma and, radiation, immunosuppressive and cytotoxic drugs.
  Oral manifestations occur when the second and third branches of the trigeminal nerve are involved. Post herpetic trigeminal neuralgia is a common complication.
  Treatment analgesic and sedatives to control the pain. Acyclovir, valacyclovir, and famcyclovir as antiviral drugs may be helpful.



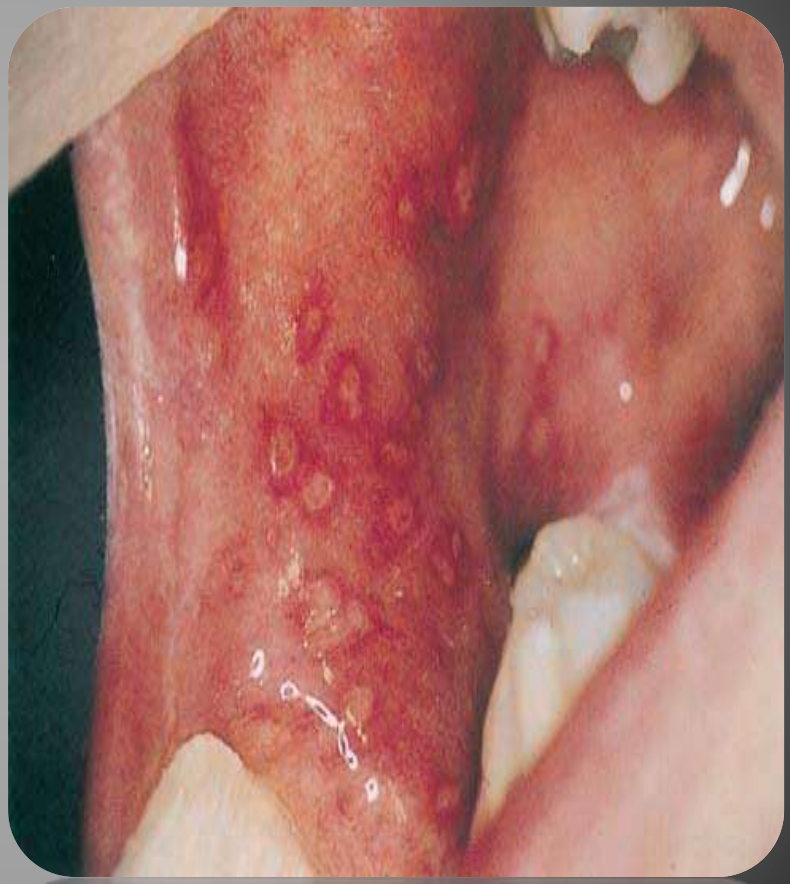
Herpangina

- Viral infection usually caused by coxsackievirus group A, types1–6, 8,10, and 22, and less commonly by other types.
- The lesions appear on the soft palate and uvula ,tonsillar pillars, and posterior pharyngeal wall
- Treatment Supportive.



Hand-Foot and Mouth Disease

- Acute self-limiting contagious viral infection transmitted from one individual to another.
- Oral manifestations are always present, and are characterized by small vesicles (5–30 in number) that rapidly rupture, leaving painful, shallow ulcers (2–6mm in diameter) surrounded by a red halo.



Acyclovir

(200-400mg)5TPD for 7 days

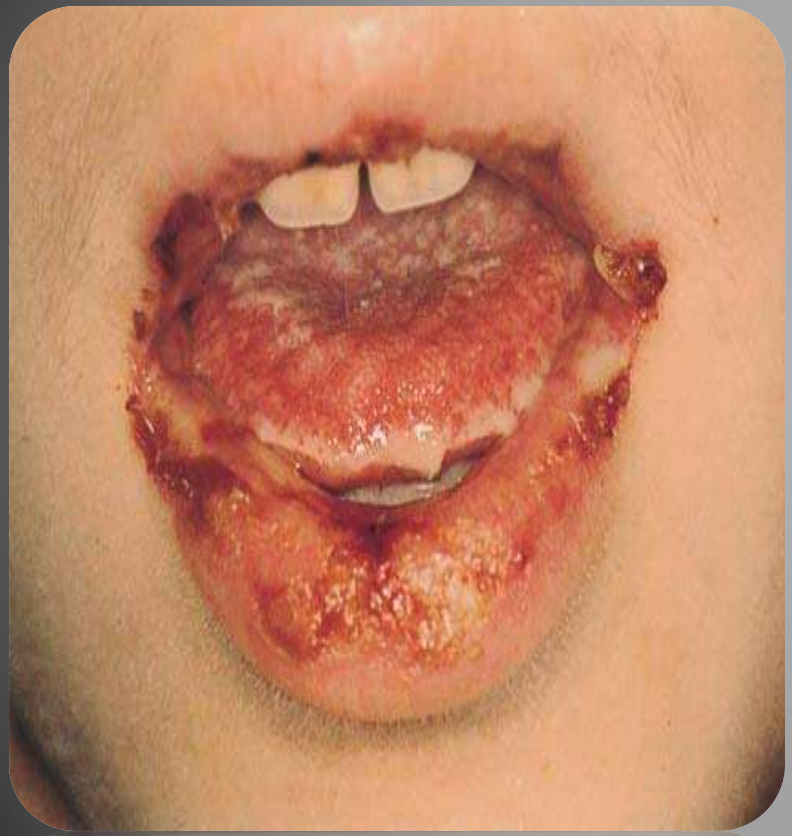
- *Mechanism of action*:
- Inhibits DNA synthesis and viral replication.
- *Indications* :
- Herpes simplex mucocutaneous infection.
- Ocular keratitis.
- Encephalitis H simplex.
- Genital herpes simplex.
- Herpes zoster.
- Chicken pox.
- *Adverse effects*:
- Topical- stining and burning sensation, headache. Nausea and malaise.
- Increase in blood level of urea and creatinine.
- Renal impairment.
- *Contraindications*:
- Hypersensitivity,g[illegible]oma,psychiatric disease and depression.

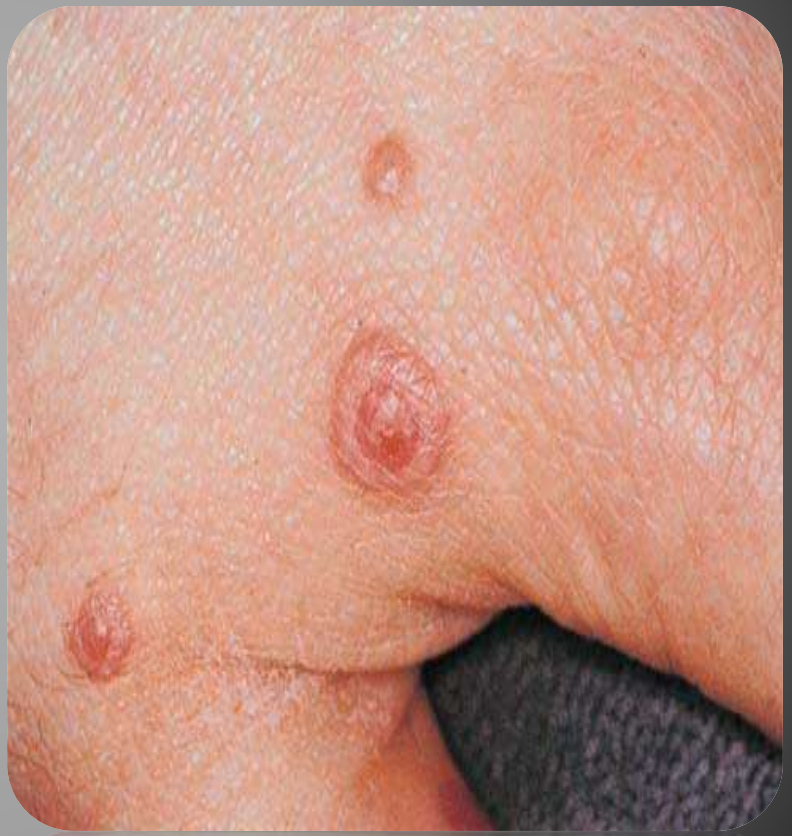
Erythema Multiforme

- Erythema multiforme *is an acute or sub acute self – limiting disease that involves the skin and mucous membranes.*
- Immunologically mediated process *triggered by herpes simplex or Mycoplasma pneumoniae, drugs, radiation, or malignancies.*
- *The characteristic skin patterns are* target-Iris- like *lesions .*

  Subepithelial or intraepithelial *vesiculation may be seen in association with necrotic basal keratincytes.*

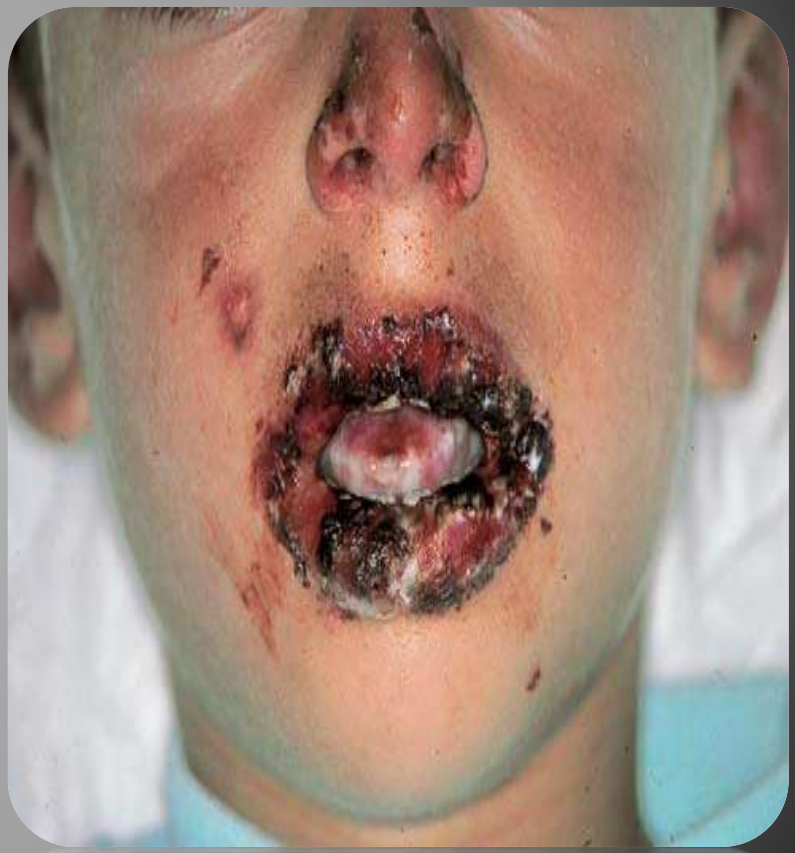
Erythema Multiforme





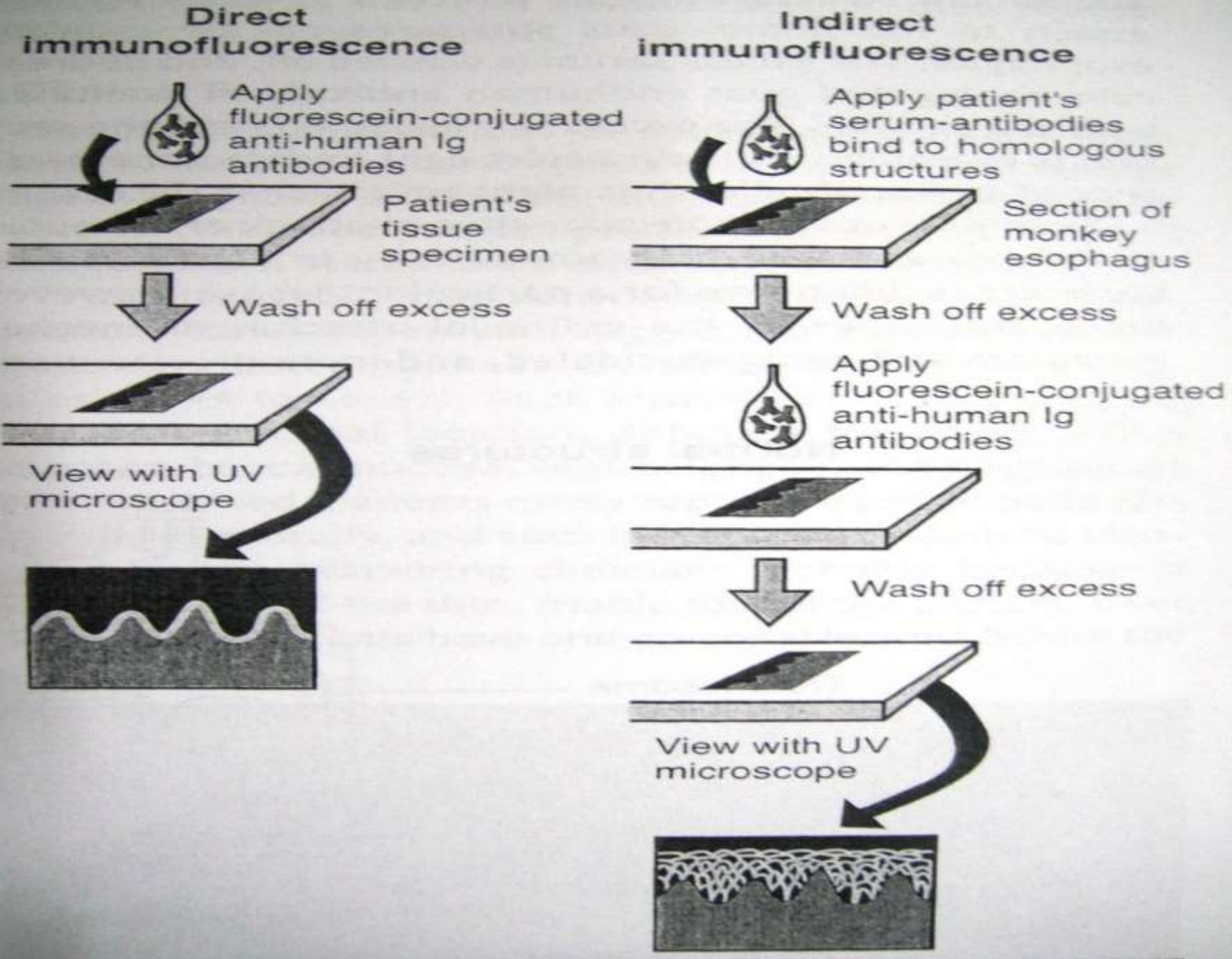
Stevens–Johnson Syndrome

- Erythema multiforme major is a severe form of erythema multiforme that predominantly affects the mucous membranes.
- The ocular lesions consist of conjunctivitis, uveitis.
- genital lesions are balanitis or vulvovaginitis, and scrotal lesions .
- Treatment Systemic steroids; antibiotics .



Toxic Epidermal Necrolysis

- Lyell disease *is a severe skin and mucous membrane disease with a severe prognosis.*
- The oral manifestations *consist of diffuse erythema, vesicles and painful erosions primarily on the lips and periorally, as well as on the buccal mucosa, tongue, and palate .Ocular, genital, and other mucous membrane lesions are common.*
- Treatment *Systemic steroids, antibiotics*


Direct immunofluorescence
Apply fluorescein-conjugated anti-human Ig antibodies
Patient's tissue specimen
Wash off excess
View with UV microscope
Indirect immunofluorescence
Apply patient's serum-antibodies bind to homologous structures
Section of monkey esophagus
Wash off excess
Apply fluorescein-conjugated anti-human Ig antibodies
Wash off excess
View with UV microscope

still being elucidated, and more precise map-

4. Pemphigus foliaceus

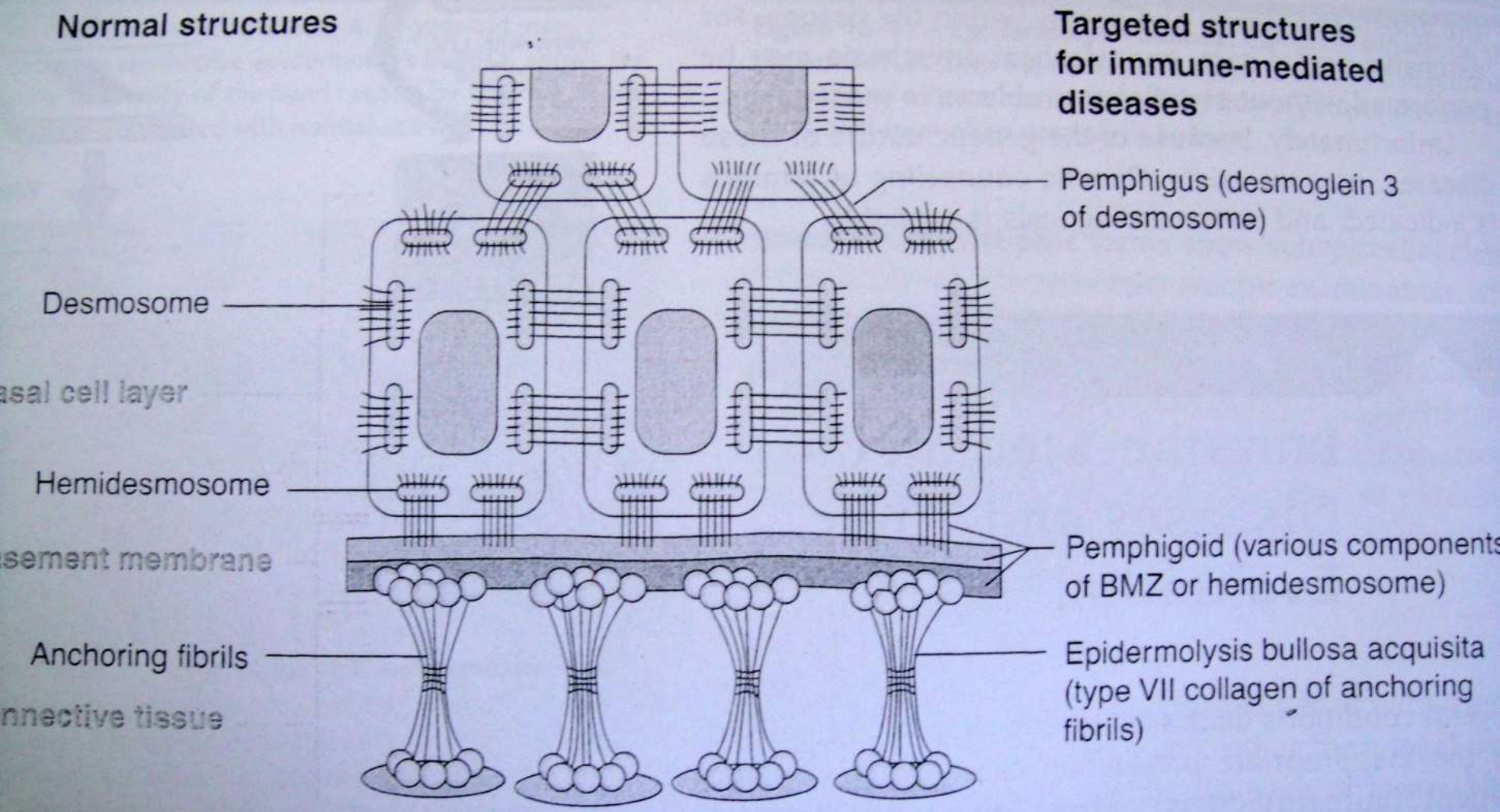


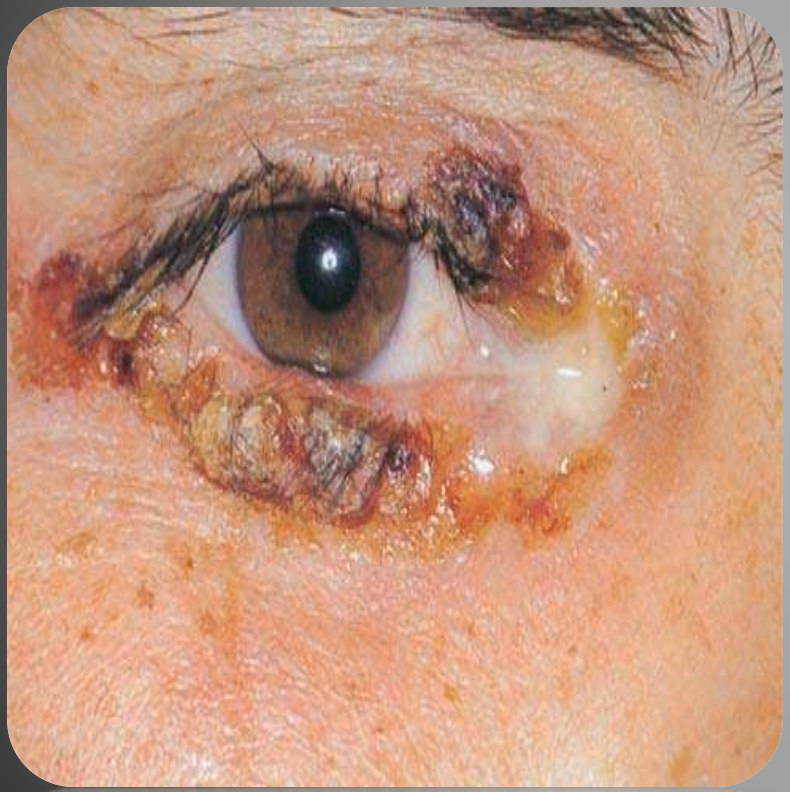
Figure 16-43 › **Epithelial attachment apparatus.** Schematic diagram demonstrating targeted structures in several immune-mediated diseases.

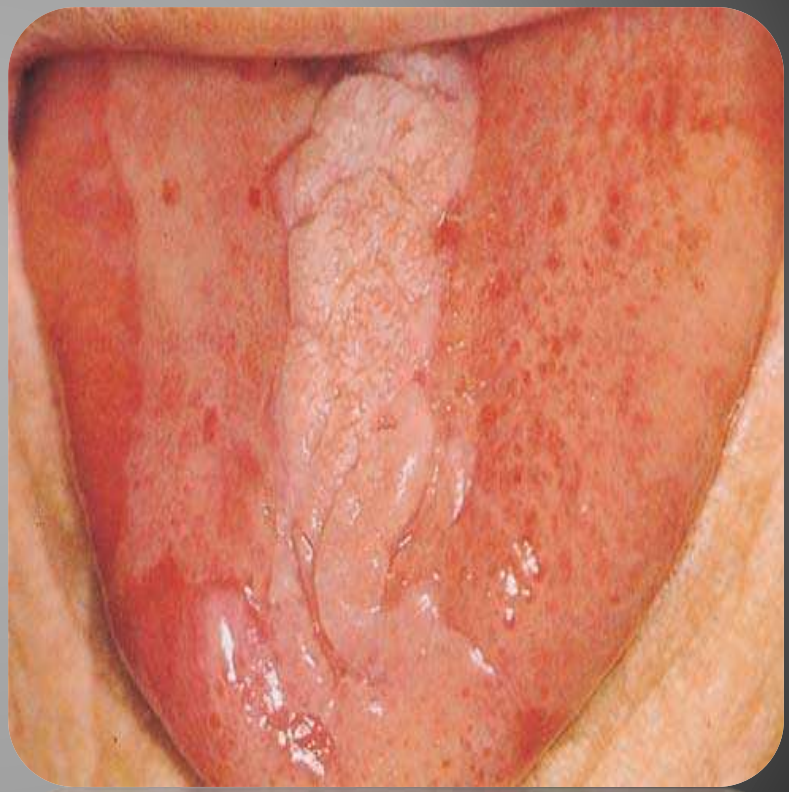
Pemphigus

- A severe chronic bullous autoimmune muco-cutaneous disease.
- Autoimmunity. Desmoglein 1and3 are the main target antigens Four classical varieties of pemphigus are recognized: *vulgaris, vegetans, foliaceus, and erythematosus.* Recently, two additional forms of the disease have been described: *drug- induced pemphigus* and *paraneoplastic pemphigus*, which usually affect patients with lympho-reticular malignancies.
- Charactistic intraepithelial separation, which occurs just above the basal cell layer of the epithelium. Sometimes the entire superficial layers of the epithelium are stripped away, leaving only the basal cells, which have been described as resembling a *"row of tombstones."*

- Treatment Systemic steroids. Cyclosporine, azathioprine, and mycophenolate mofetil

Pemphigus





Paraneoplastic pemphigus

- **Neoplasia** induced pemphigus.
- Usually **chronic lymphcytic leukemia and lymphoma**.
- Cross- reactivity develops between antibodies produced in response to the tumor and antigens associated with the desmosomal complex and the basement membrane zone of the epithelium.

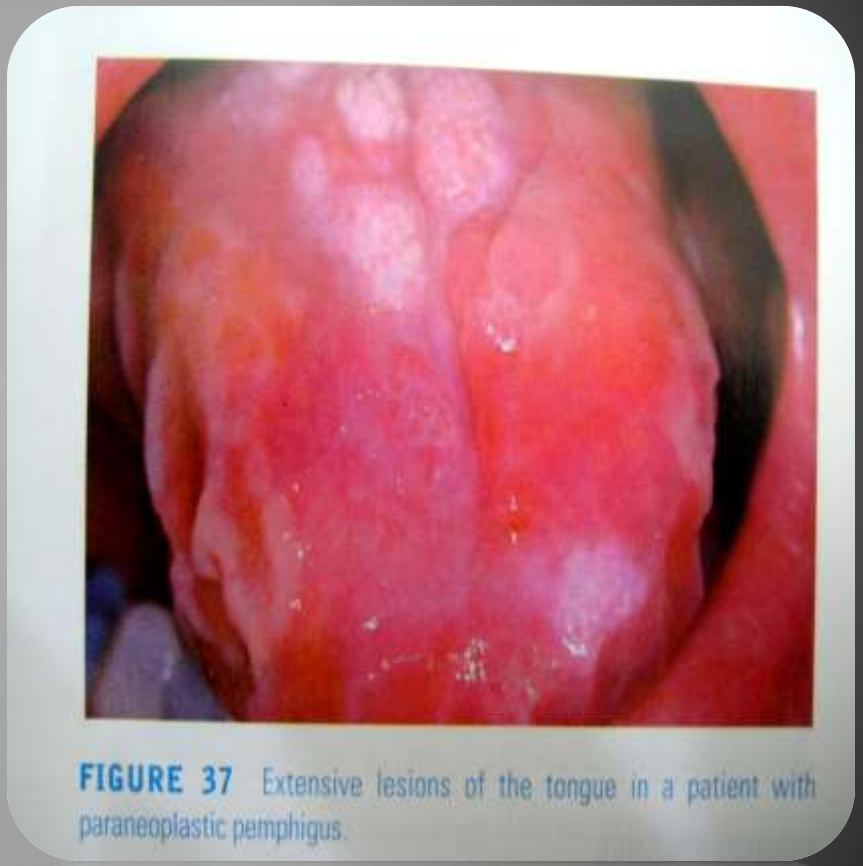
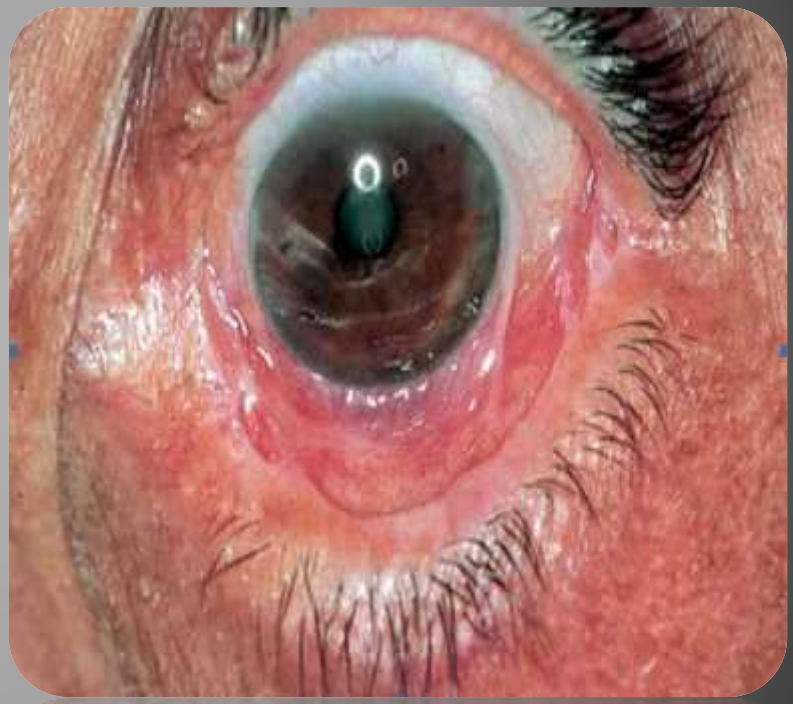


FIGURE 37 Extensive lesions of the tongue in a patient with paraneoplastic pemphigus.

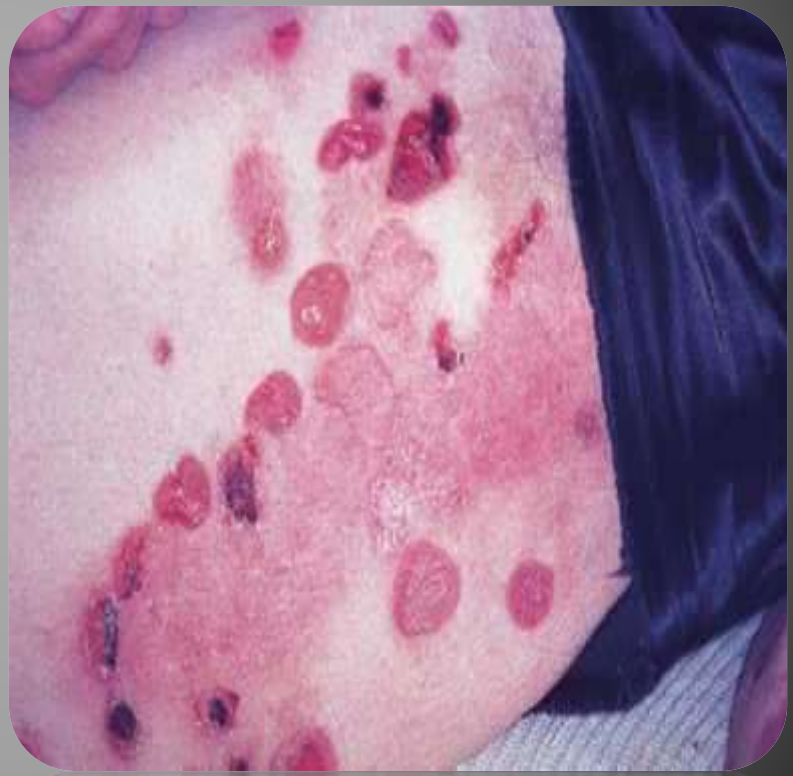
Cicatricial Pemphigoid

- mucous membrane pemphigoid, is a chronic bullous mucocutaneous disease that primarily affects mucousmembranes, and results in atrophy or scarring.
- Bulbous pemphigoid antigen (BP180), laminin5, integrinB4, and type VII collagen are the main target antigens. Gingival involvement is common, producing a specific clinical pattern of *desquamative gingivitis*. Ocular lesions consist of conjunctivitis, symblepharon, entropion, trichiasis, dryness, and corneal



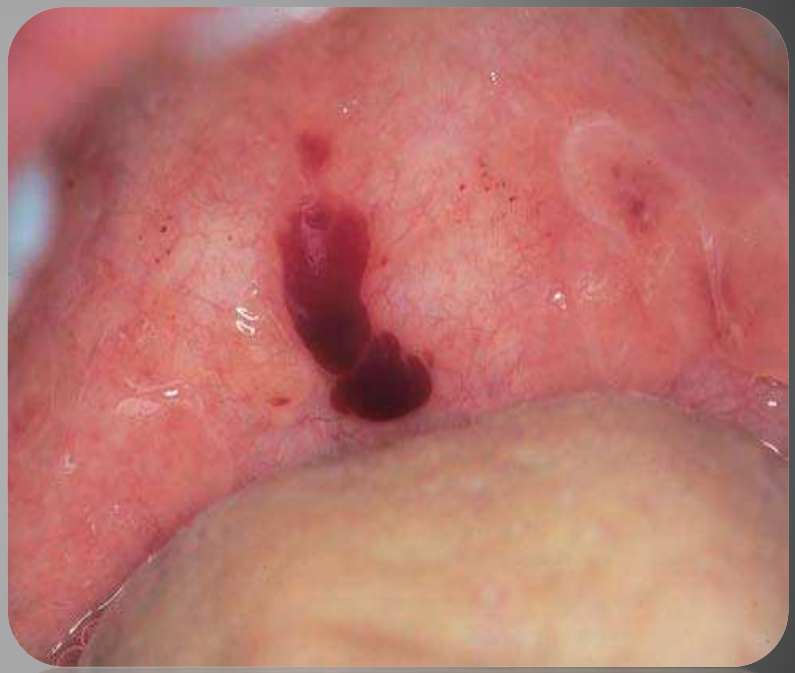
Bullous Pemphigoid

- A chronic mucocutaneous bullous disease that usually affects older individuals.
- Autoimmunity. Bullous pemphigoid antigens (BP180, BP230) are the main target antigens.
- The oral lesions usually follow cutaneous manifestations and begin as bullae that soon rupture; leavings hallow ulcerations .
  separation of the epithelium from the connective tissue at the basement membrane zone, resulting in a sub epithelial separation
  Treatment Steroids and, rarely,



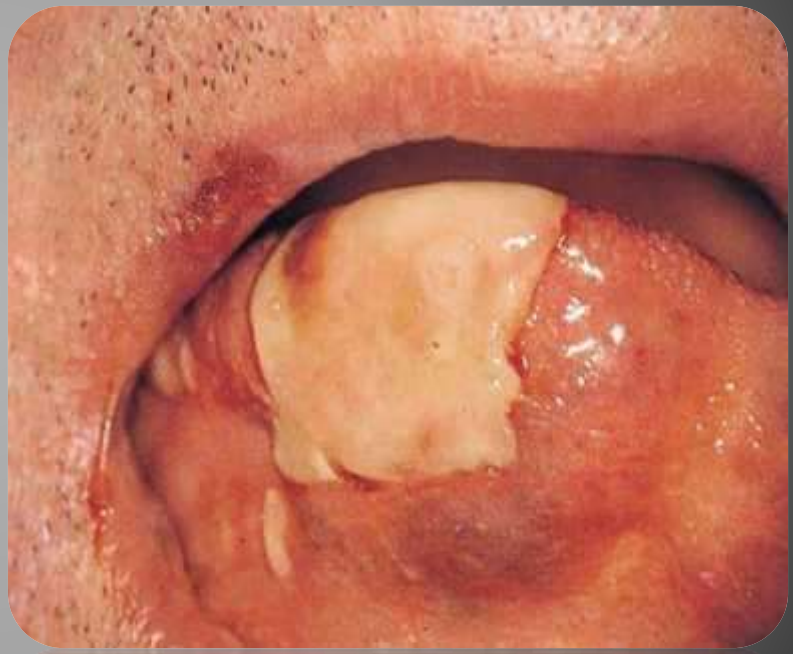
Pemphigoid Gestations

- acute sub epidermal blistering disease occurring in the second or third trimester of pregnancy or in the early postpartum period.
- Autoimmune. The autoimmune response is mainly directed to 180kDa hemidesmosomal antigen (BP180The skin manifestations present as pluritic, papulobullous eruptions and erythema .The bullae are numerous and often coalesce and soon rapture leaving painful ulcerations. Treatment Systemic corticosteroids, azathioprine,



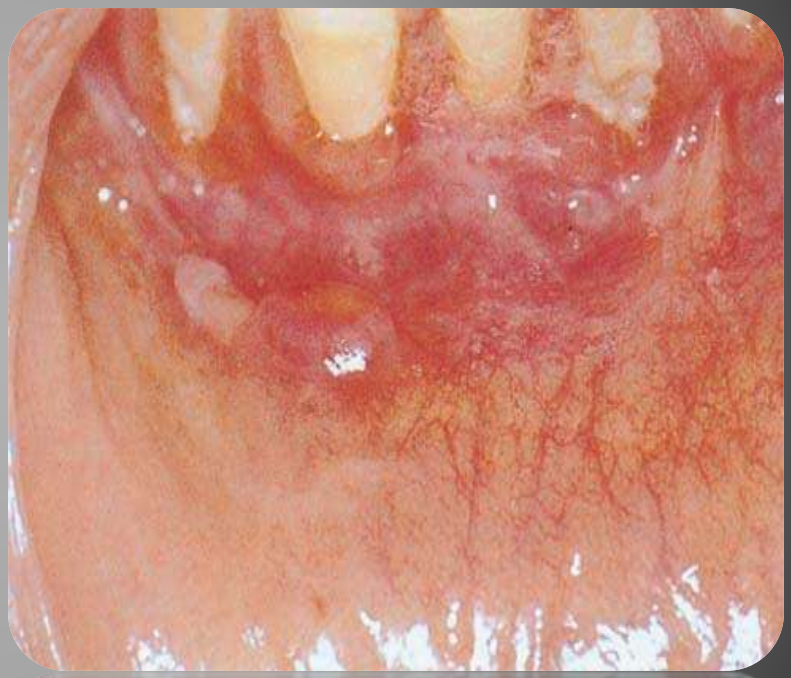
Linear IgA Disease

- Is a disorder that has recently been recognized in the spectrum of chronic bullous diseases, Characterized by the linear deposition of IgA along the basement membrane zone.
- The clinical features of the disease are similar to those seen in cicatricial pemphigoid.
  Treatment Dapsone and steroids.



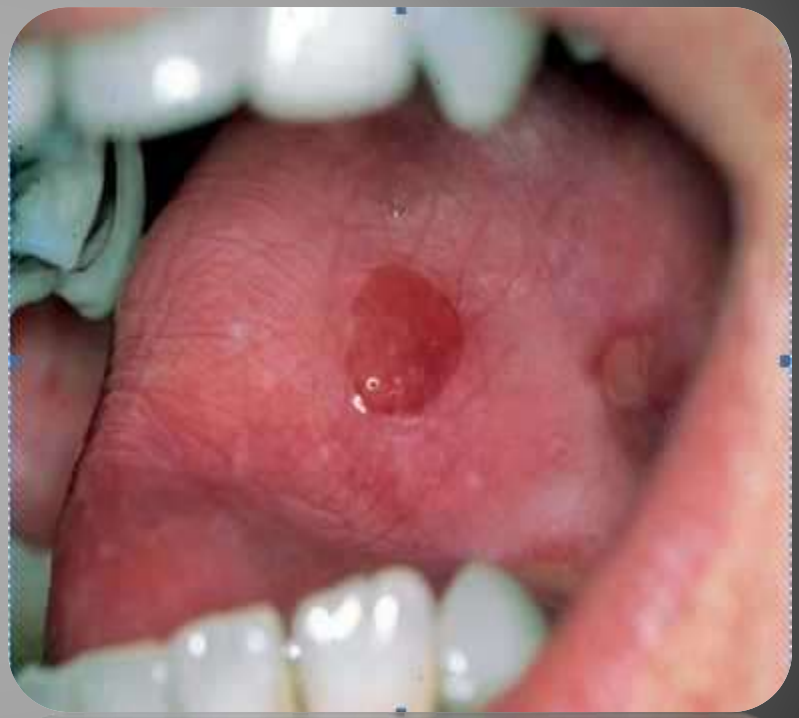
Dermatitis Herpetiformis

- Duhring–Brocq disease, is a chronic recurrent cutaneous bullous disease, rarely with oral involvement.
- Immunological and genetic factors, as well as gluten sensitivity, may be involved in the pathogenesis.
- Oral manifestations follow the skin eruption, and present as maculopapular, erythematous, purpuric, and mainly vesicular lesions. The vesicles appear in a cyclic pattern,
  Treatment Sulfones and sulfa pyridines. A gluten-free diet may control the disease activity



Epidermolysis Bullosa

- A hetero generous group of usually inherited mucocutaneous bullous disorders.
- Three main inherited groups are recognized: *simplex, junctional. and dystrophic.* Oral manifestations are more common in the junctional and dystrophic forms. Oral lesions present as bullae, usually in areas of friction, which rupture, and later atrophy and scarring. .Dysplastic teeth may be seen in the severe forms . Treatment Supportive, systemic steroids in severe cases.

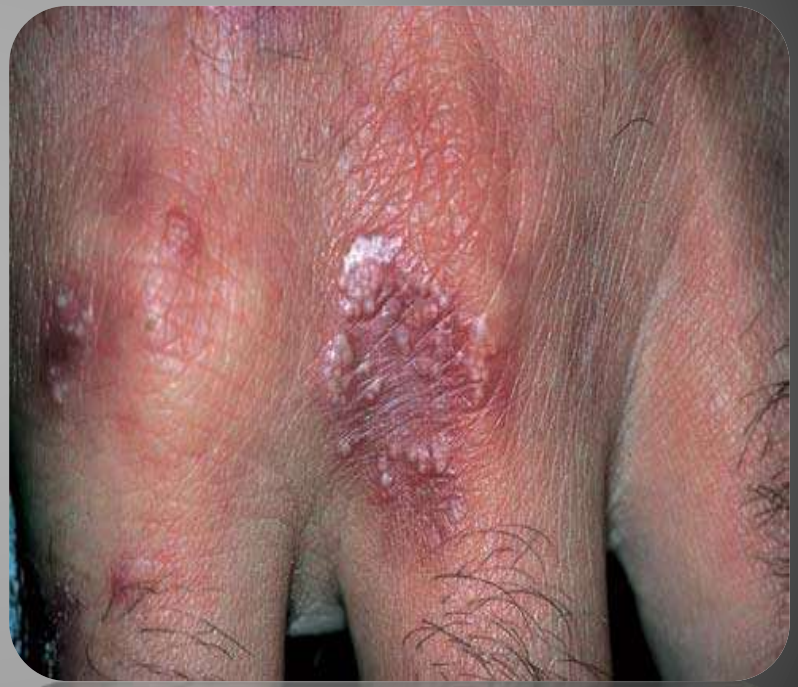


Epidermolysis Bullosa Acquisita

Chronic mechanobullous disease involving the skin and mucous membranes.

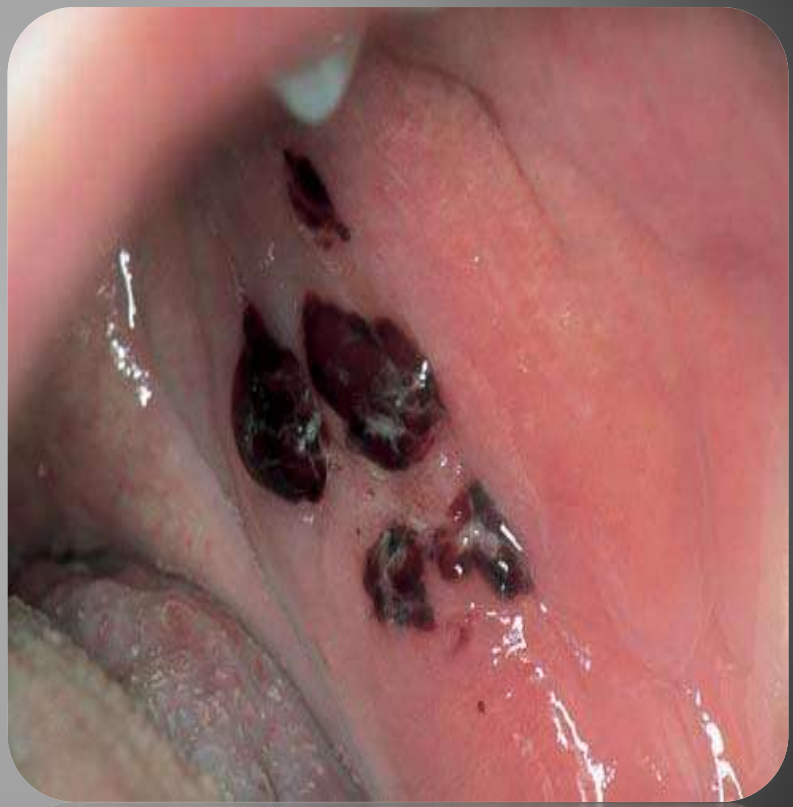
- Autoimmune. Type VII collagen has been identified as the main target antigen.
- The skin lesions present as hemorrhagic bullae and ulcerations usually at the sites of mechanical irritation.

Treatment Systemic and/ or topical corticosteroids, immunosuppressives, colchicine, immunoglobulin. Mechanical irritations should be avoided.



Angina Bullosa Hemorrhagica

- A rare acute and benign blood blistering oral disorder.
- mild trauma and the chronic use of steroid inhalers seem to play an important role in the development t of the lesions.
- Clinically, it appears as single or multiple hemorrhagic bullae that rupture spontaneously within hours or 1–2days, leaving superficial ulcerations that heal without scarring in 5–10days. The soft palate, buccal mucosa, and tongue are the sites of predilection .
  Treatment is symptomatic.



Prednisolone

(5-60mg/day) in divided doses

- *As anti-inflammatory Action*:
  - Increase in neutrophils concentration.
  - Decrease in lymphocytes concentration.
  - Inhibition of macrophage migration factor.
  - Reduction of prostaglandin.
  - Vasoconstriction.
- *Indications:*
  - Lichan planus,erythema multiforme, pemohigus,Behcets disease and post herpetic neuralgia.
- *Adverse effects*:
- Adrenal suppression, weight gain ,osteoporosis ,peptic ulcer ,Diabetes mellitus ,sever mood swings .
- *Condraindications*:
  - Hypersensitivity, viral infection, Diabetes mellitus, TB and peptic ulcer.