

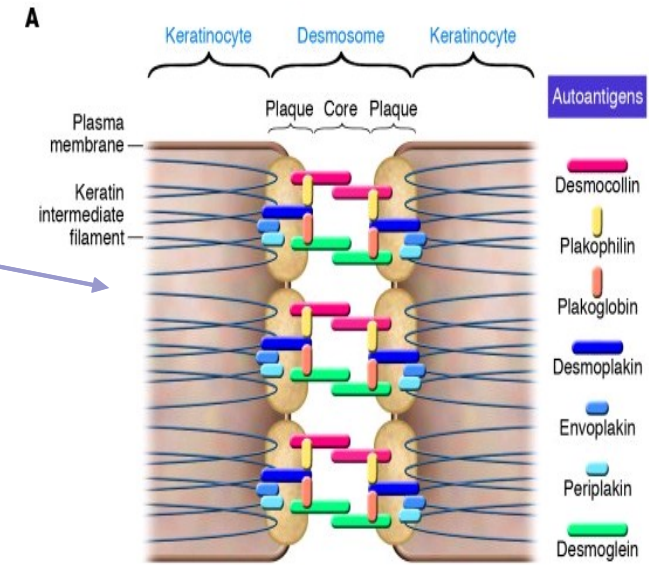
Autoimmune bullous diseases

- Rare diseases, severe forms are lethal
- Skin and mucous membranes

- Two groups according to the level of cleavage
- Intraepidermal – Pemphigus and variants
- Subepidermal – pemphigoid group, DHD, EBA

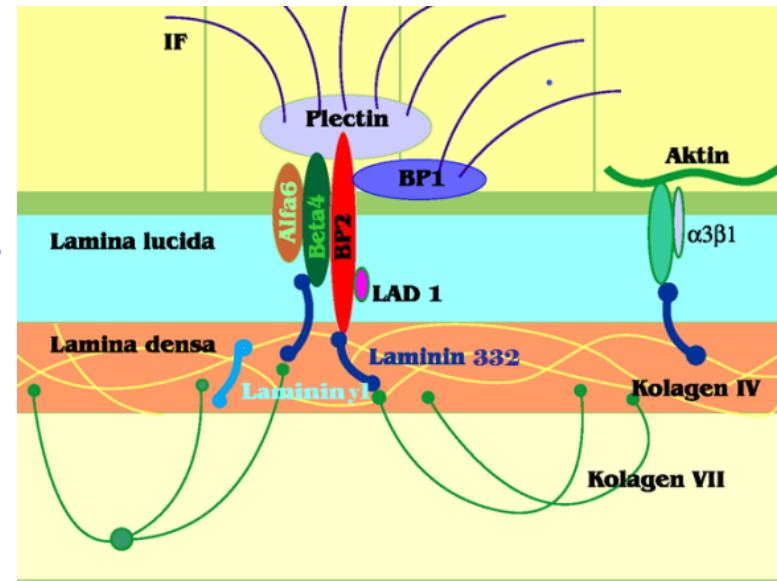
- Autoantibodies IgG/IgA against antigens in the epidermis and junctional zone

Pemphigus - desmosomes



B

Pemphigoid - hemidesmosomes

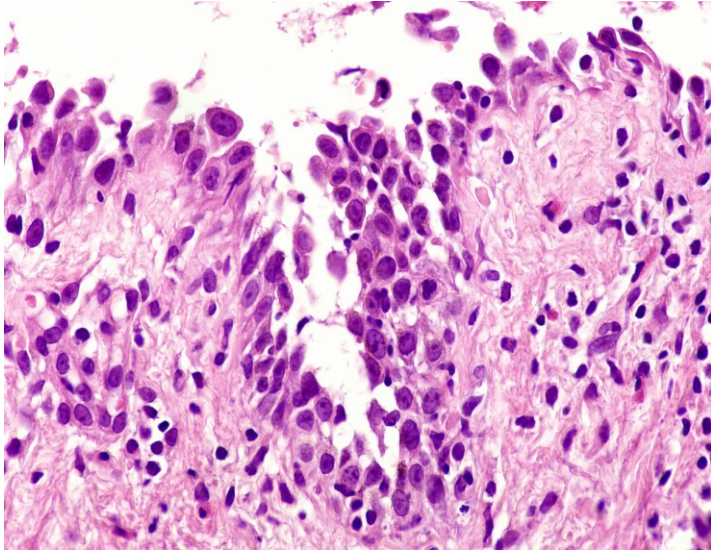


Diagnostics – Tzanck test, histology, immunofluorescence direct & indirect, ELISA, immunoblot

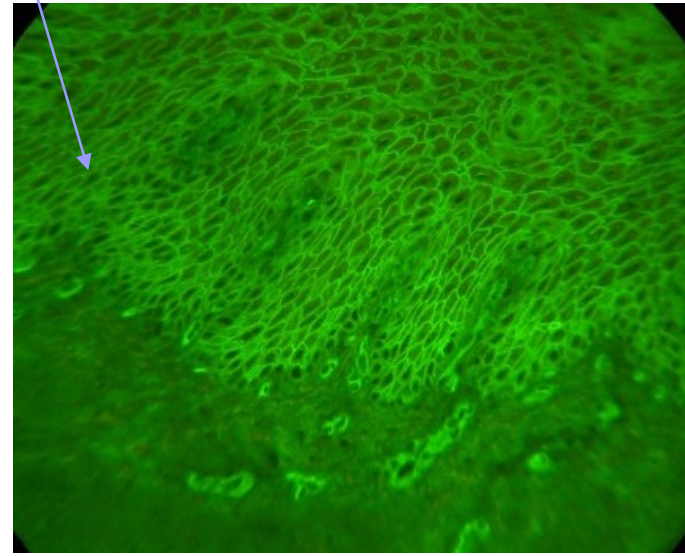
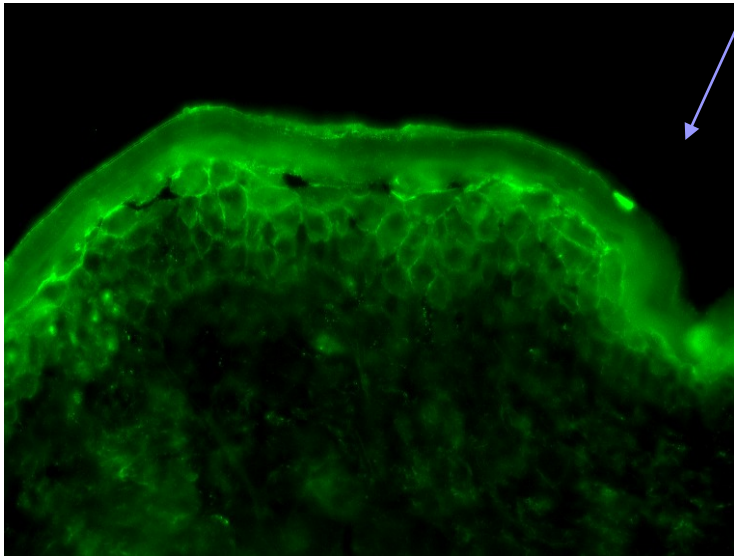
Pemphigus

- **Suprabasal** (Dsg 3,1, IgG)
 - pemphigus vulgaris
 - vegetans
- **Superficial** (Dsg 1, IgG)
 - pemphigus foliaceus
 - fogo selvagem (Brazil)
 - drug induced (thiols, phenols, penicilamin, captopril)
 - pemphigus erythematosus Senear Usher – fotosensitivity, ANA antibodies
- **Paraneoplastic Pemphigus** – lichenoid, EEM features, bronchiolitis
- **IgA pemphigus**

Pemphigus

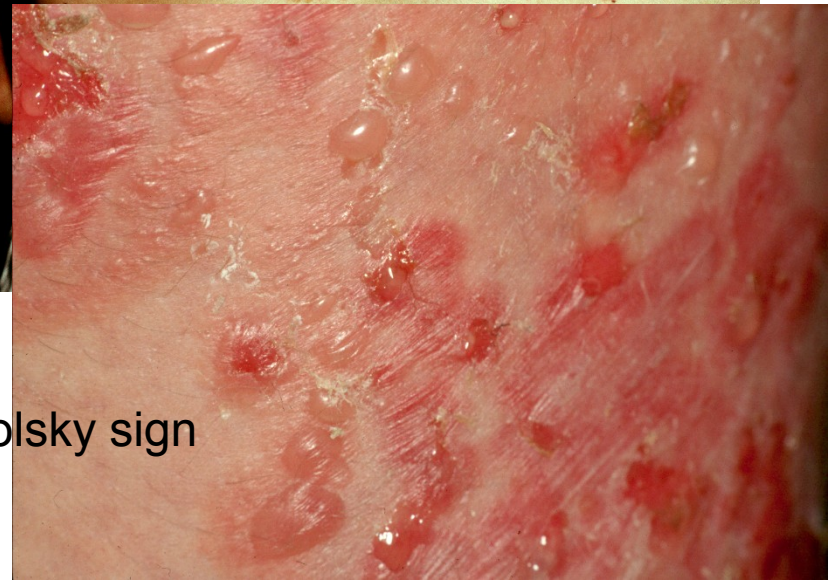
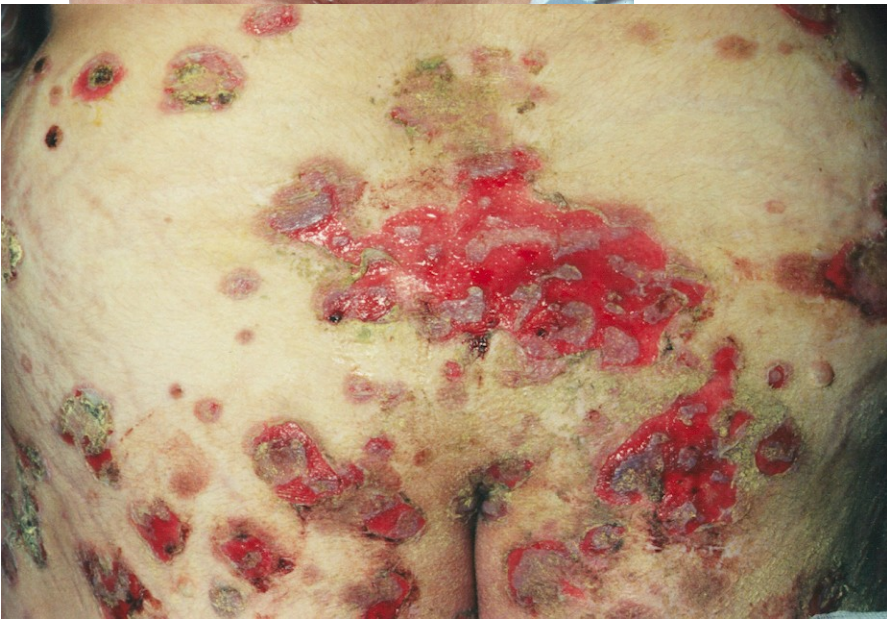


- Suprabasal acantholysis H+E
- Direct IF – pemphigus foliaceus
- Anti IgG/C3
- Indirect IF – monkey esophagus
- ICS anti IgG



Pemphigus vulgaris

- Rare bullous disorder with autoantibody-induced intraepidermal blisters (desmosomes - acantholysis)
- Incidence 5/ 1 million inhabitants
- Chronic disease, can be lethal
- Average age 30-60 years
- Etiopathogenesis
- Genetic factors (HLADR4)
- Drug induced, infections, phenols
- Antibodies against desmoglein 1,3

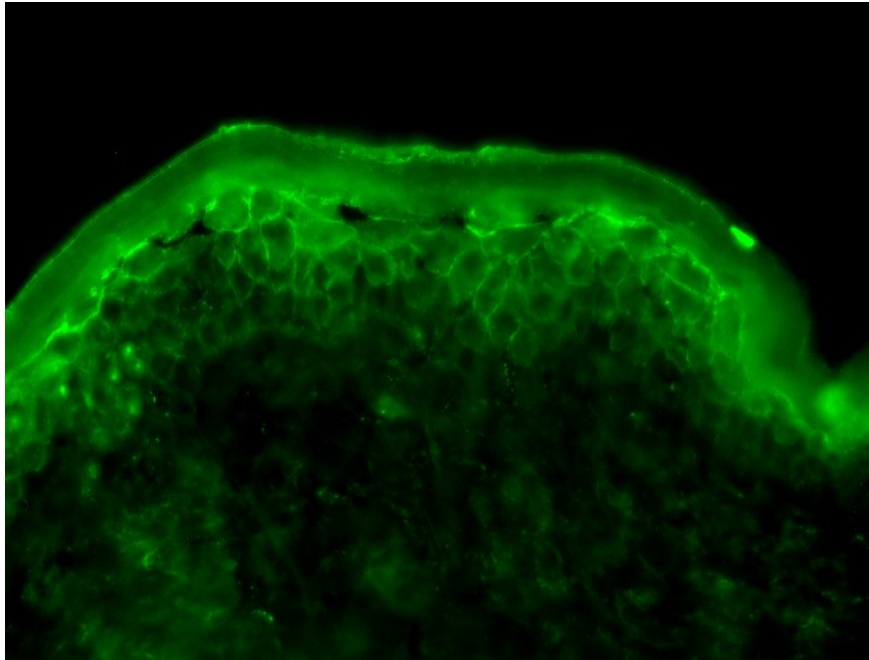


Nikolsky sign

Pemphigus vegetans



Pemphigus foliaceus

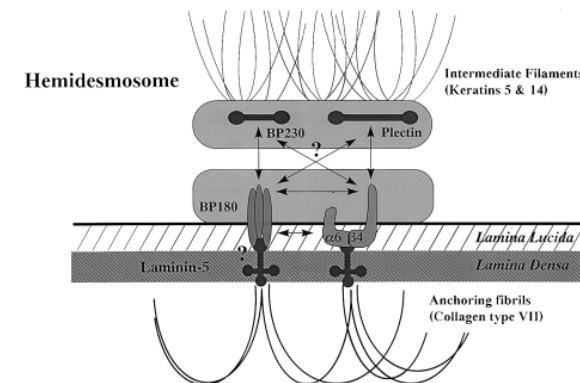


Pemphigus therapy

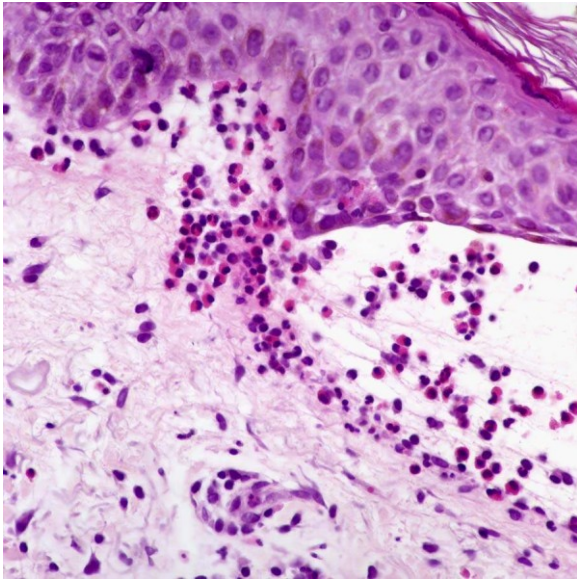
- Corticosteroids (Prednisone 1-1,5mg/kg/d)
- ...taper to 15 -20 mg/d
- Immunosuppressives - corticosteroid sparing agents
- Mycophenolate mofetil 2g/d
- Azathioprine – cave TPMT deficiency
- MTX 10-20mg per week
(Cyclophosphamide – toxic)
-
- Rituximab anti CD20 antibody –risk of infections
- Dapsone
- IVIG 1-2g/kg pulse every 6 weeks
- Immunoabsorption IgG
- Long term therapy, 2 years minimum, often life long

Subepidermal autoimmune bullous dermatoses

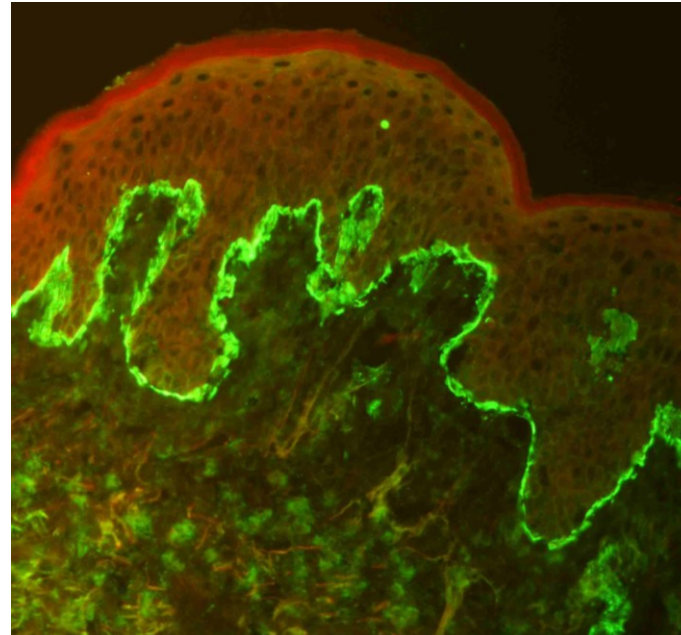
- Rare disorders with autoantibody-induced subepidermal blisters (basement membrane – hemidesmosomes)
- Bullous Pemphigoid - BP
- Pemphigoid gestations (variant of BP)
- Cicatricial Pemphigoid – mucous membrane pemphigoid
- Epidermolysis bullosa acquisita (association diabetes, bowel disease)
- IgA linear dermatosis – typically childhood, in adults drug induced – vankomycin
- Dermatitis herpetiformis Duhring



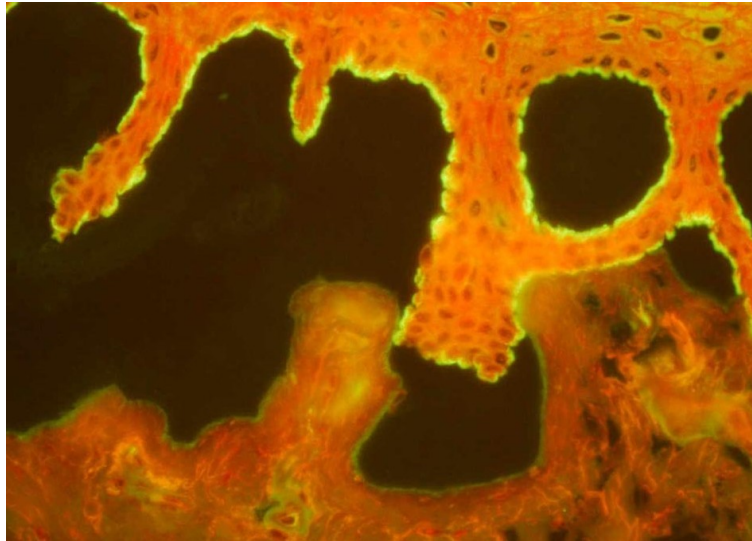
BP – subepidermal blister - eosinophils



Direct IF line on BM IgG/C3



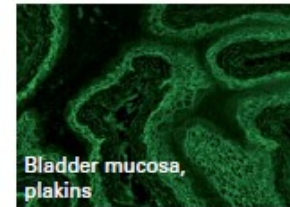
Salt split skin blister roof in BP



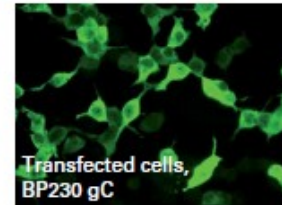
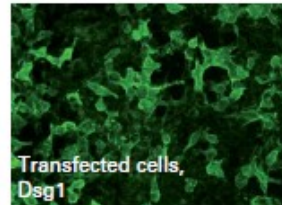
Oesophagus: detection of antibodies against prickle-cell desmosomes (pemphigus) and basal lamina (pemphigoid).



Salt-split skin: differentiation of autoantibodies against antigens of the epidermal (BP180, BP230) and dermal (collagen type VII, laminin 332, p200) sides of the skin.

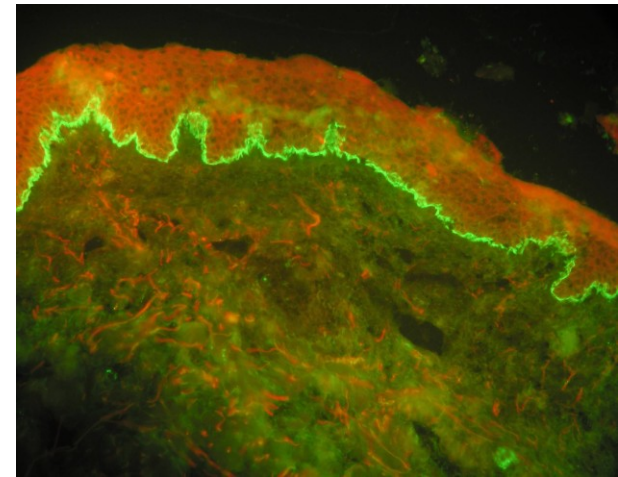


Bladder mucosa: detection of autoantibodies against plakins (paraneoplastic pemphigus).



Pemphigoid bullosus

- Elder people – over 70 years
- Many concomitant diseases
- Paraneoplastic disease (13%) prostate, breast cancer
- Drug induced (PNC, enalapril, furosemid, gliptins)
- Neurodegenerative diseases!
- Cerebral stroke + paresis, Parkinson disease, dementia
- (BP expression in neuronal tissue)
- 1 year survival 60% patients



BP tense hemorrhagic blisters, infiltrated skin
Tissue and blood eosinophilia, strong pruritus





BP in paretic limb



Urticarial lesions in BP

Pemphigoid bullosus therapy

- Corticosteroids (Prednisone 0,5-0,7mg/kg)

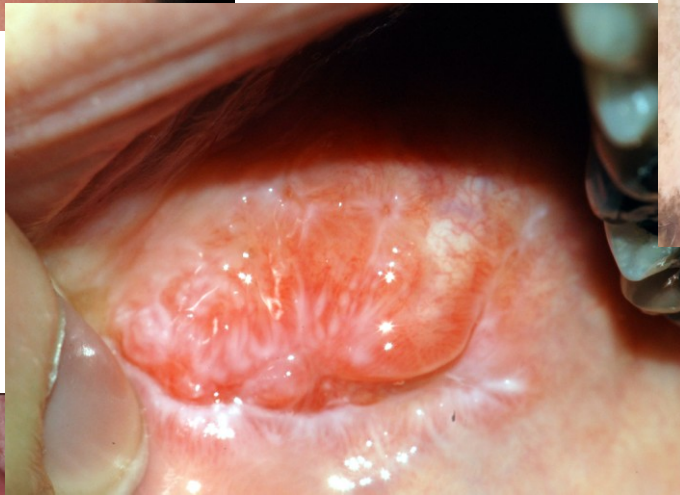
or

- Potent topical corticosteroids (clobetasol)
- Immunosuppressives (azathioprine, methotrexate, mycophenolate)
- Dapsone
- TTC – antiinflammatory effect

Cicatricial Pemphigoid MMP

- Incidence 1/million inhabitants
- 60 years of age
- Paraneoplasia (stomach cancer), topicals for glaucoma
- Mucose membranes stenosis, scarring
- Conjunctiva - entropion, symblepharon, trichiasis blindness →
- Pharynx, larynx,
- Genital area
- Skin – minor disease Brunsting Perry Pemphigoid

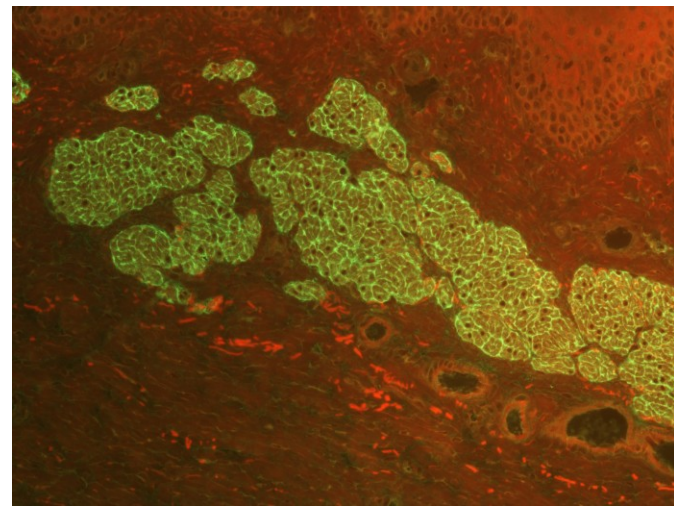
- Therapy – as in pemphigus



Pictures from Praktická dermatologie

Dermatitis herpetiformis Duhring

- rare disease – incidence 3/1 million inhabitants
- gluten sensitive enteropathy – coeliacia
- IgA antibodies against endomysium (tissue transglutaminase)
- cross reaction with eTG on reticulin fibers in dermal papillae
- sensitivity to gluten, iodine



Dermatitis herpetiformis Duhring

- Children rarely
- Young adults
- HLA DQ2, DQ8 association
- Predilection sites – elbows, knees, sacrum, hairline

Therapy

- Gluten free diet
- Dapsone
- Topical corticosteroids

