Connective tissue disorders

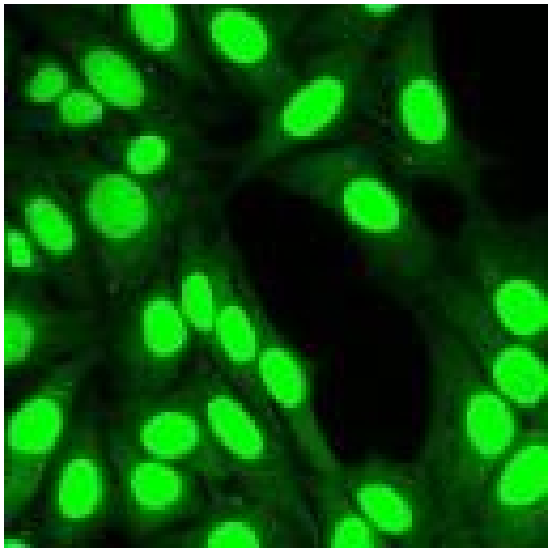
- Lupus erythematosus
- Scleroderma
- Dermatomyositis, polymyositis
- Overlap syndromes

Lupus erythematosus

- ***systemic lupus erythematosus*** - SLE
- ***chronic cutaneous lupus erythematosus*** – CCLE
- ***subacute cutaneous lupus erythematosus*** – SCLE
- *neonatal LE*
- *drug induced (hydralazine, sulfonamides)*

Systemic lupus erythematosus - SLE

- ARA criteria:
- malar rash
- discoid lesions
- photosensitivity
- oral lesions
- arthritis non-erosive
- serositis
- neurologic disorders
- lupus nephritis (proteinuria 0,5g/d)
- hematologic disorders
- immunologic disorders (LE cells, ANA  , anti dsDNA, Sm antigen, histones etc.)



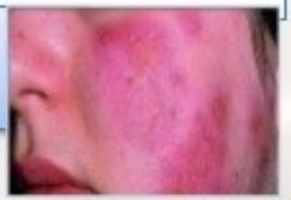
SYSTEMIC LUPUS ERYTHEMATOSUS

SLICC Diagnostic Criteria :

CLINICAL CRITERIA	IMMUNOLOGIC
1. Acute cutaneous lupus **2. Chronic cutaneous lupus** **3. Oral or nasal ulcers** 4. Non-scarring alopecia 5. Arthritis 6. Serositis **7. Renal dysfunction** 8. Neurologic dysfunction 9. Hemolytic anaemia 10. Leukopenia 11. Thrombocytopenia (<100,000/mm^3)	**1. ANA** 2. Anti-DNA 3. Anti-Sm 4. Antiphospholipid Ab 5. Low Complement (C3, C4, CH50) 6. Direct Coombs' test

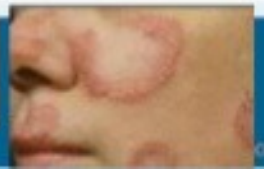
- Occurs after sun exposure; followed by systemic manifestatons within few weeks
- Localised form: malar rash
- Generalised form: can involve whole body; systemic manifestations are present

ACUTE CLE

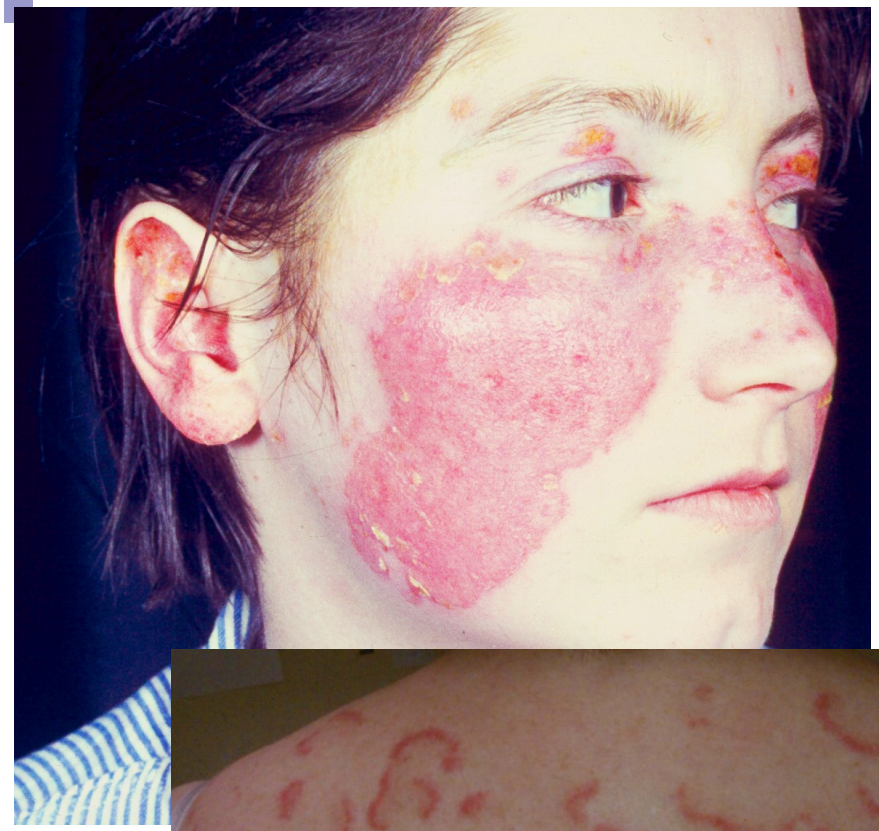


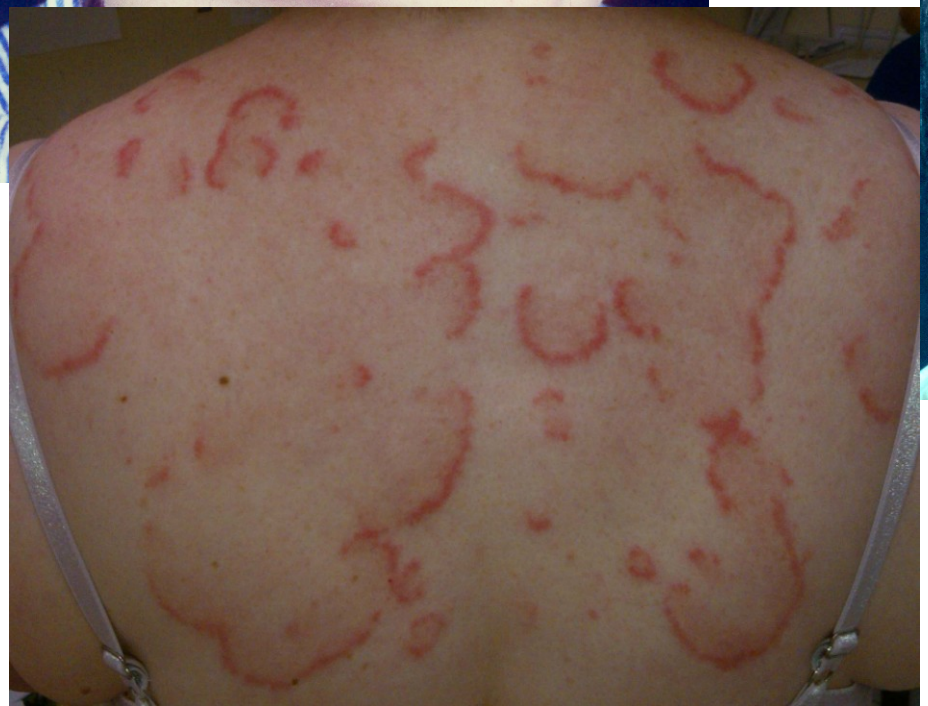
- Subtypes include:
  1.DLE(localised or generalised)
  2.Hypertrophic DLE
  3.Lupus profundus
  4.Mucosal LE
  5.Chilblain lupus

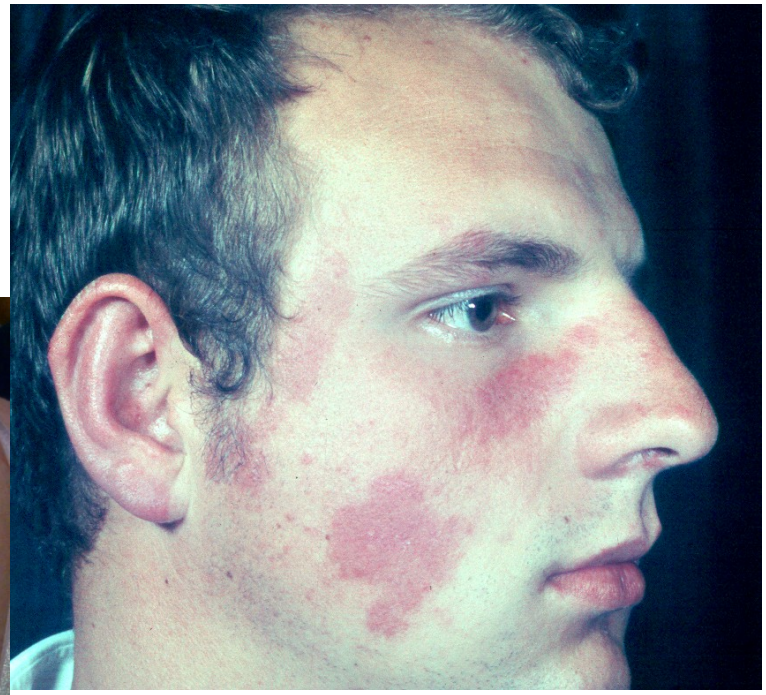
CHRONIC CLE



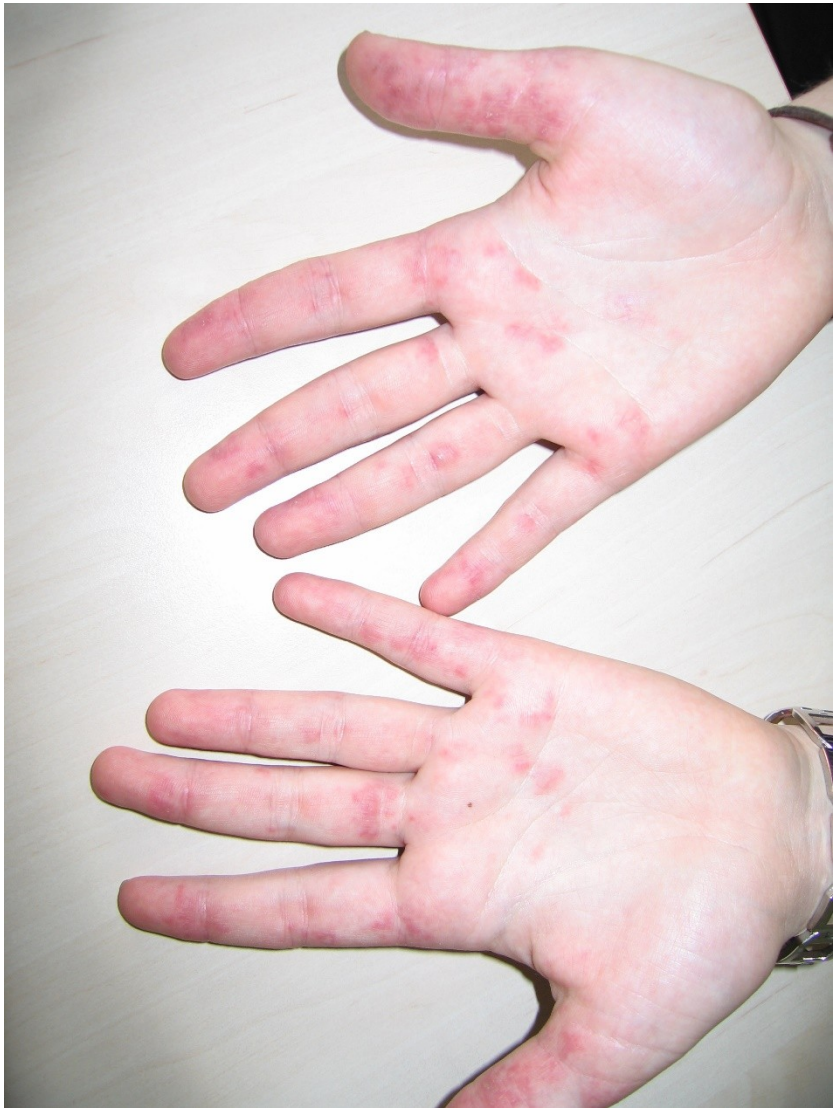
(SLICC - SLE international cooperating clinics group)

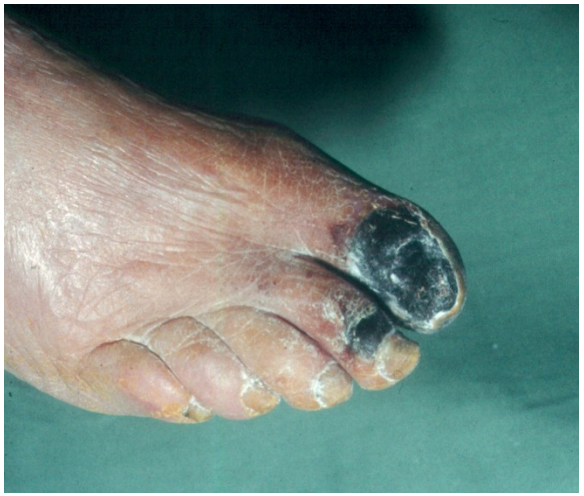


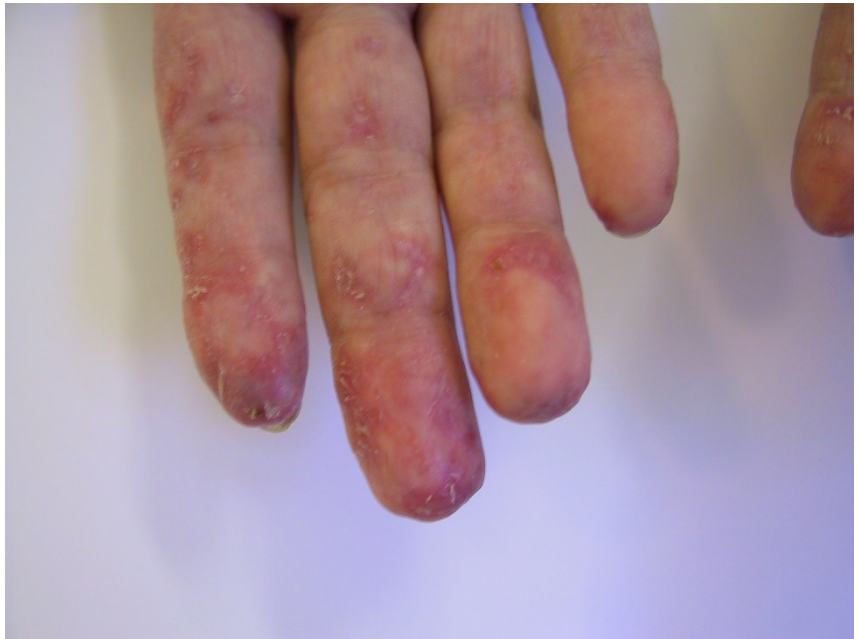




SLE

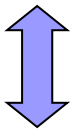




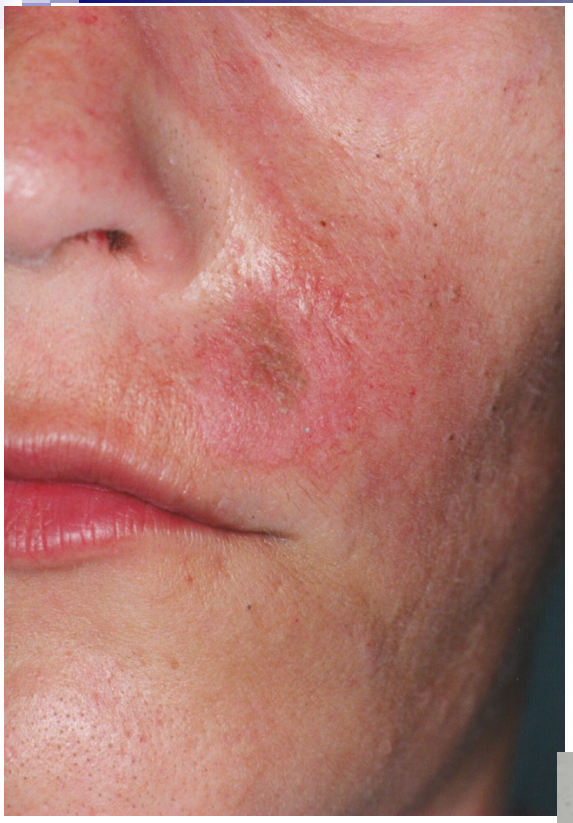


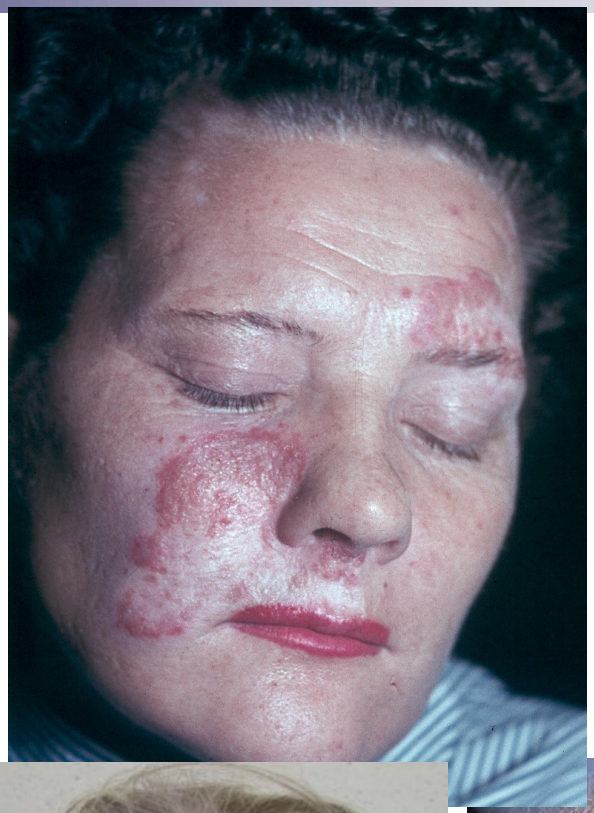
Chronic cutaneous lupus erythematosus - CCLE

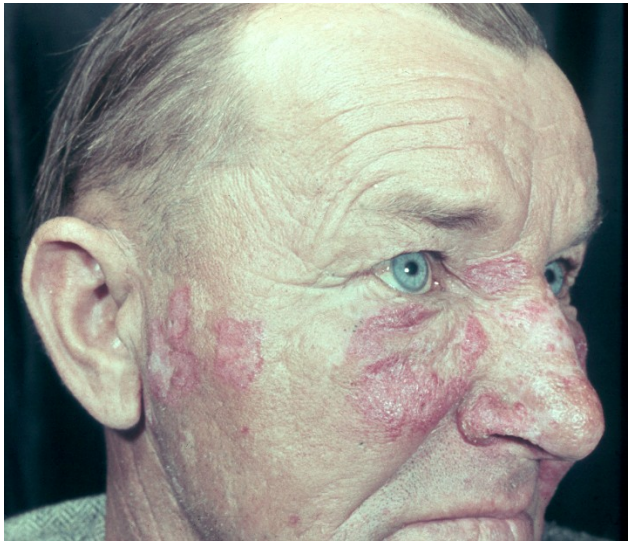
- discoid lesions – CDE –scarring -lupus
- photosensitivity – sun exposed areas
- hypertrophic lesions –lupus tumidus - rare
- lupus panniculitis
- ANA low titers or none (≤1:160)
- no systemic disease

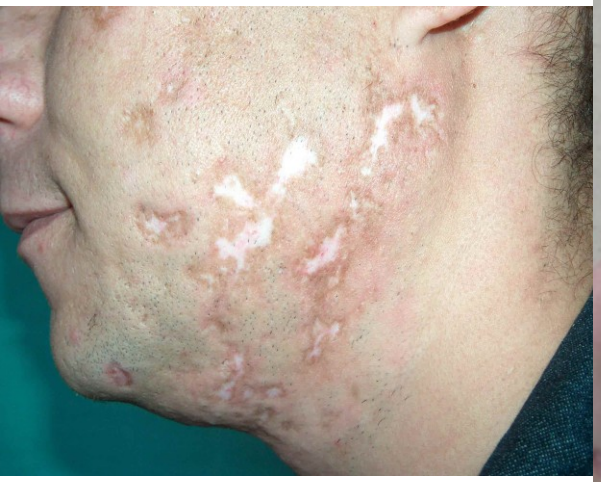


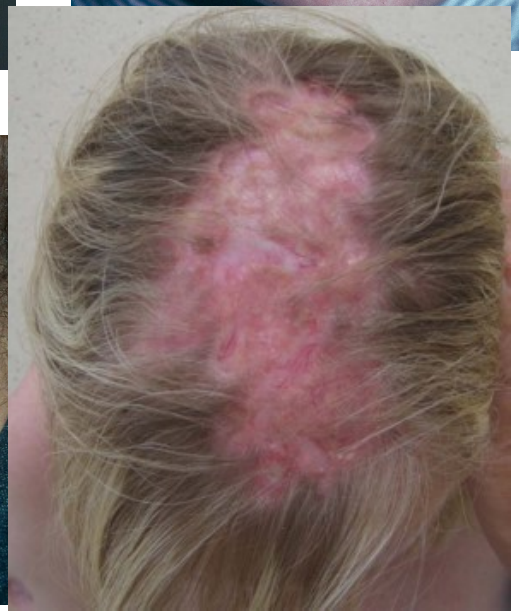
- symptom of systemic disease (30%)

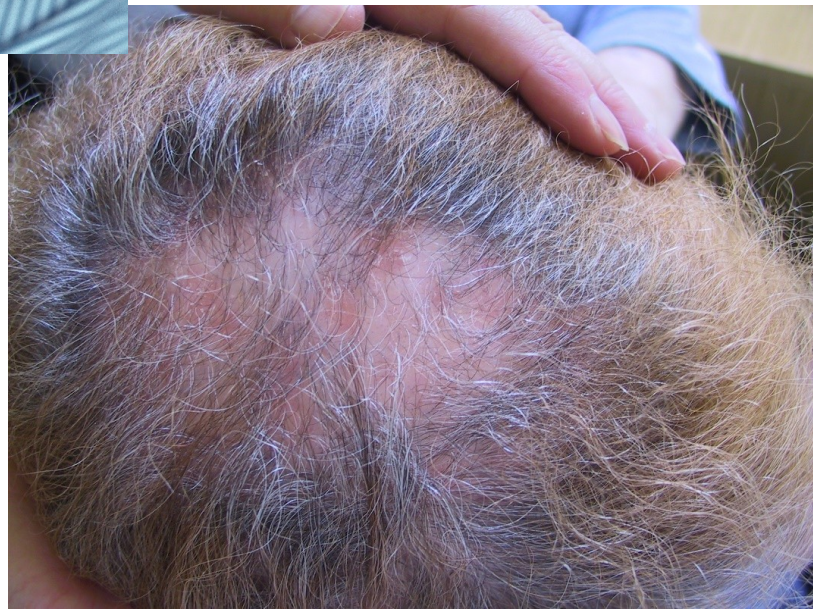




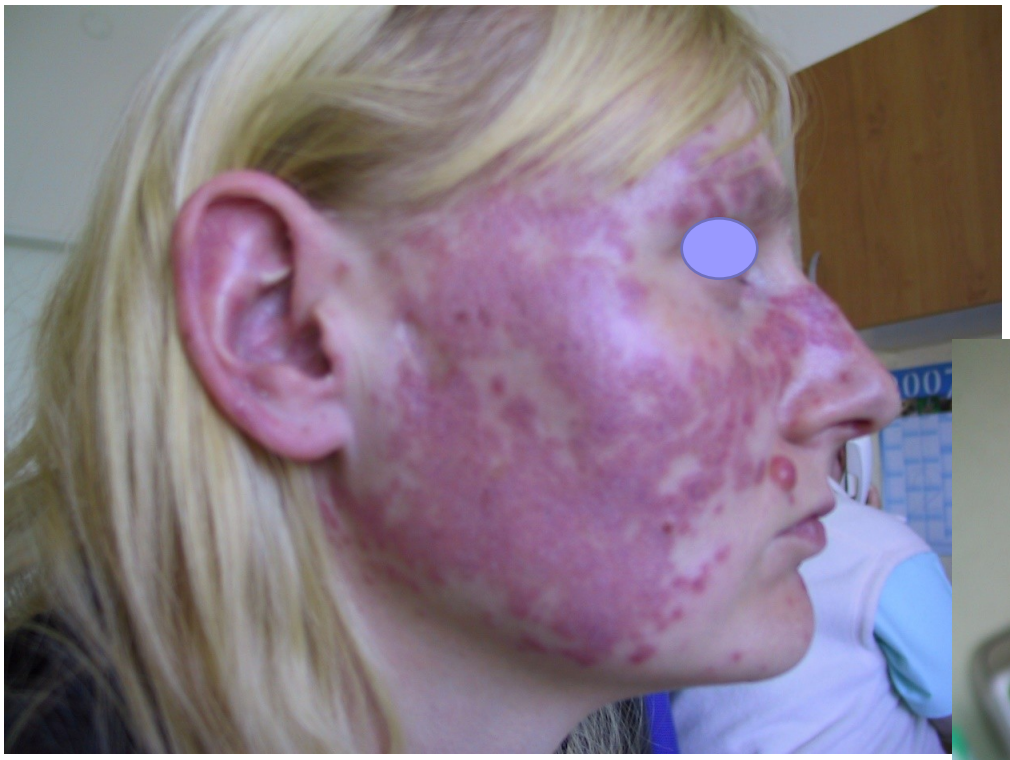


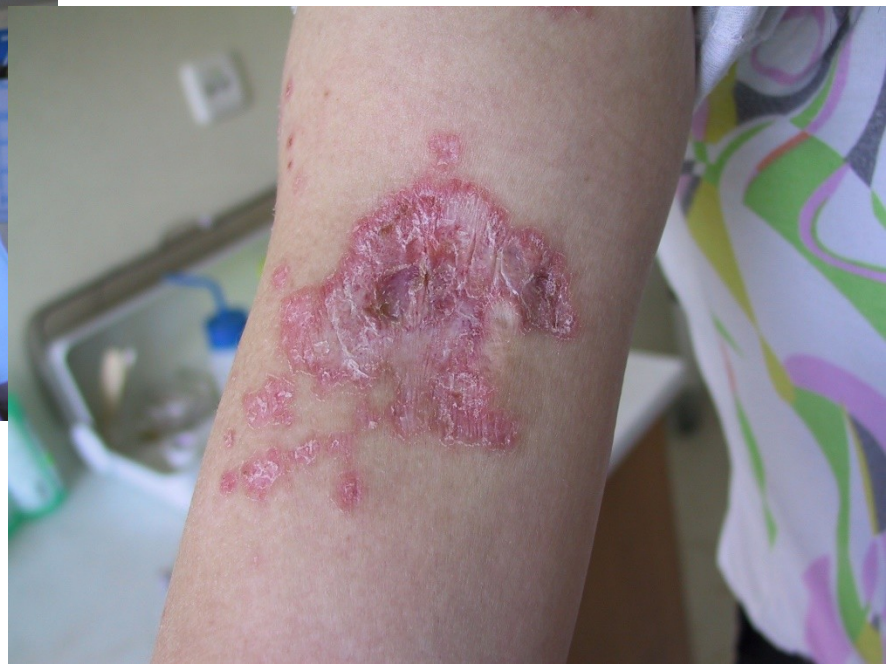




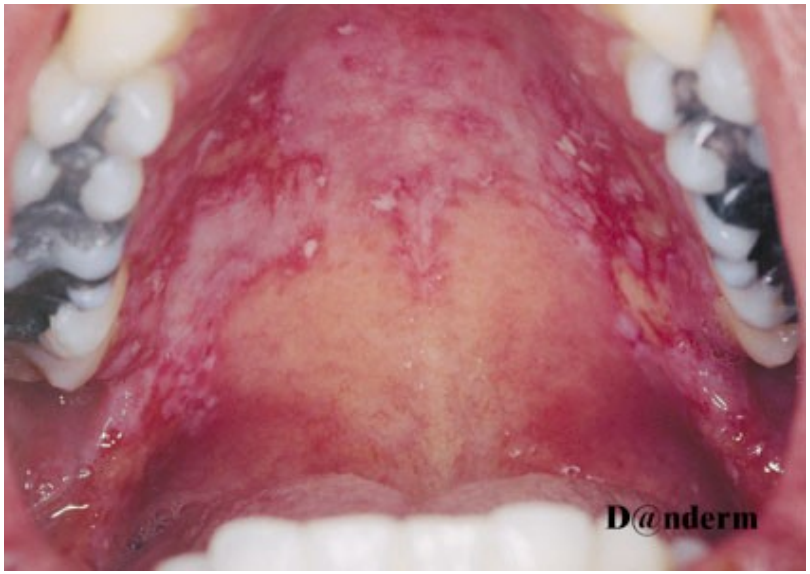


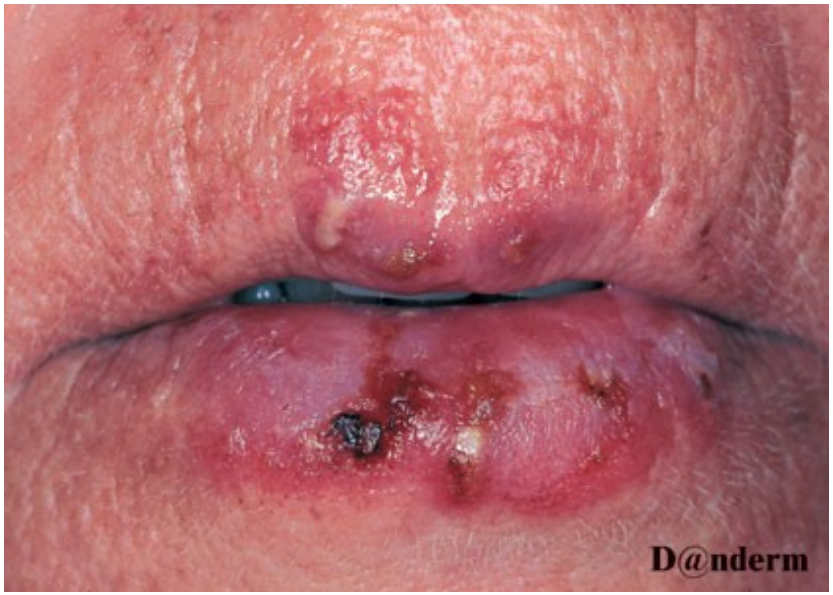
Lupus panniculitis





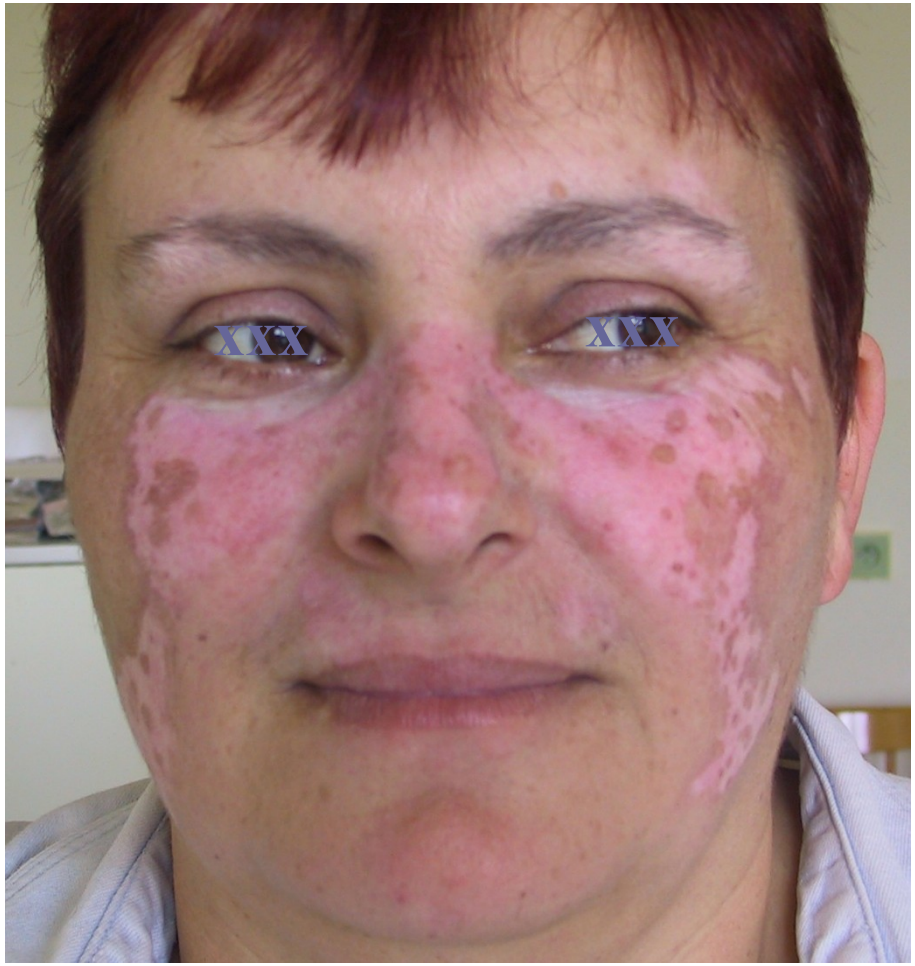
CDE – oral and lip involvement

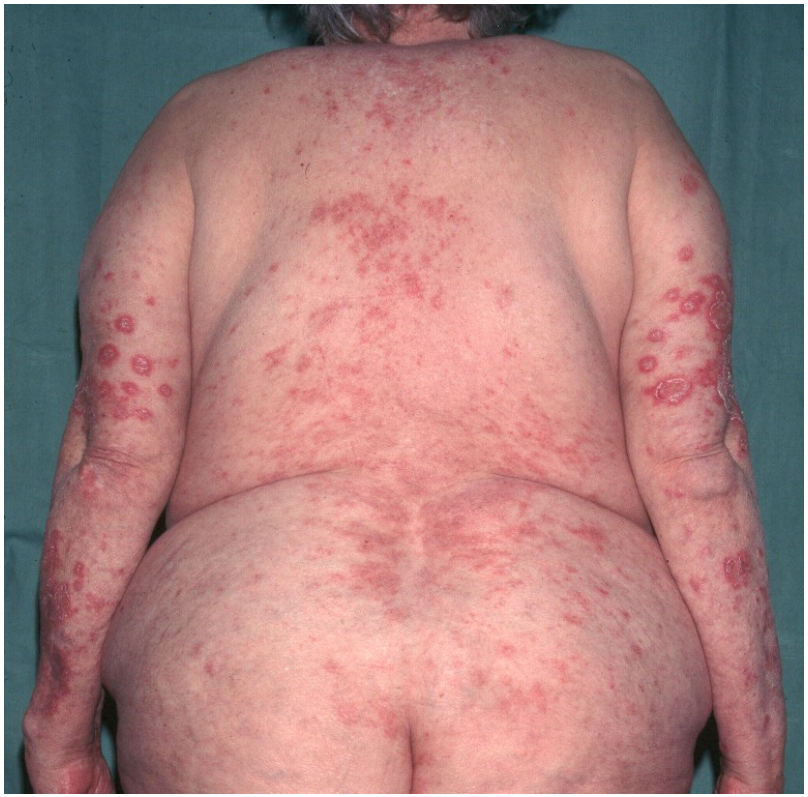


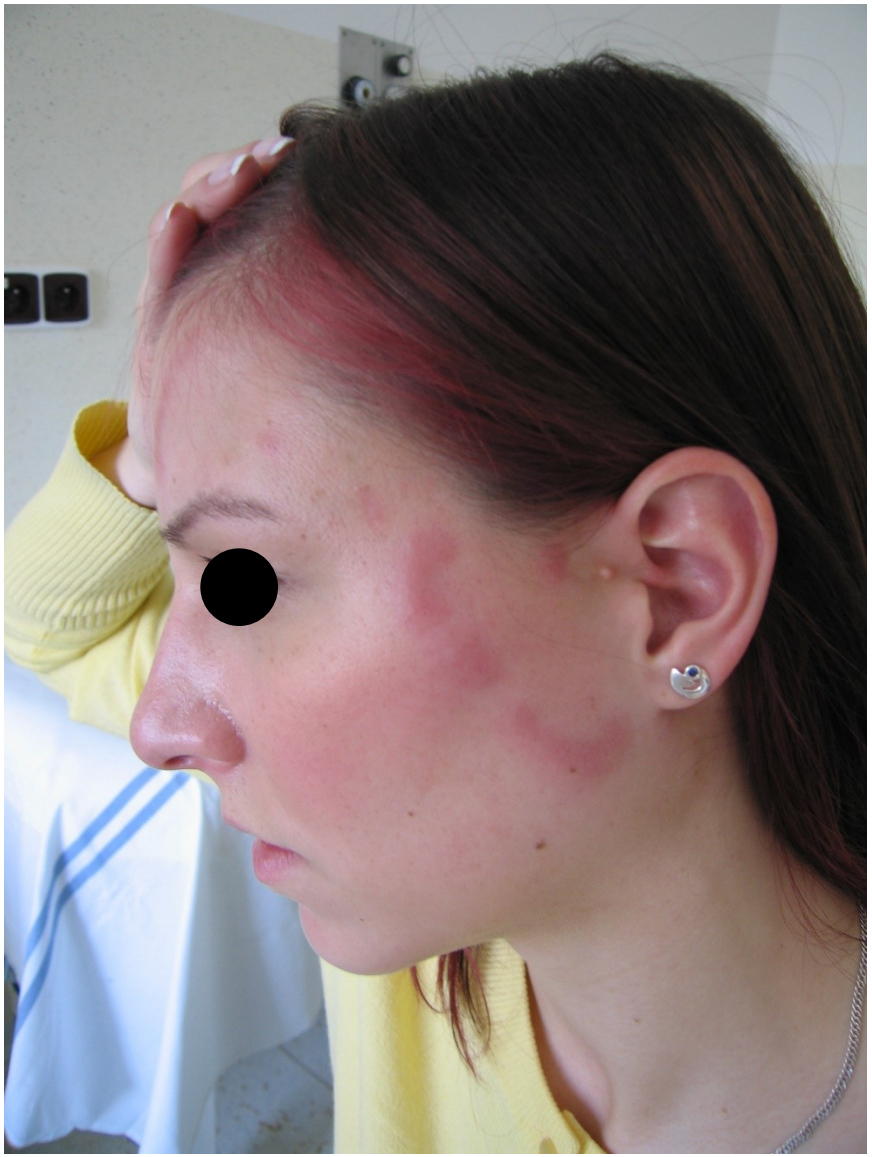


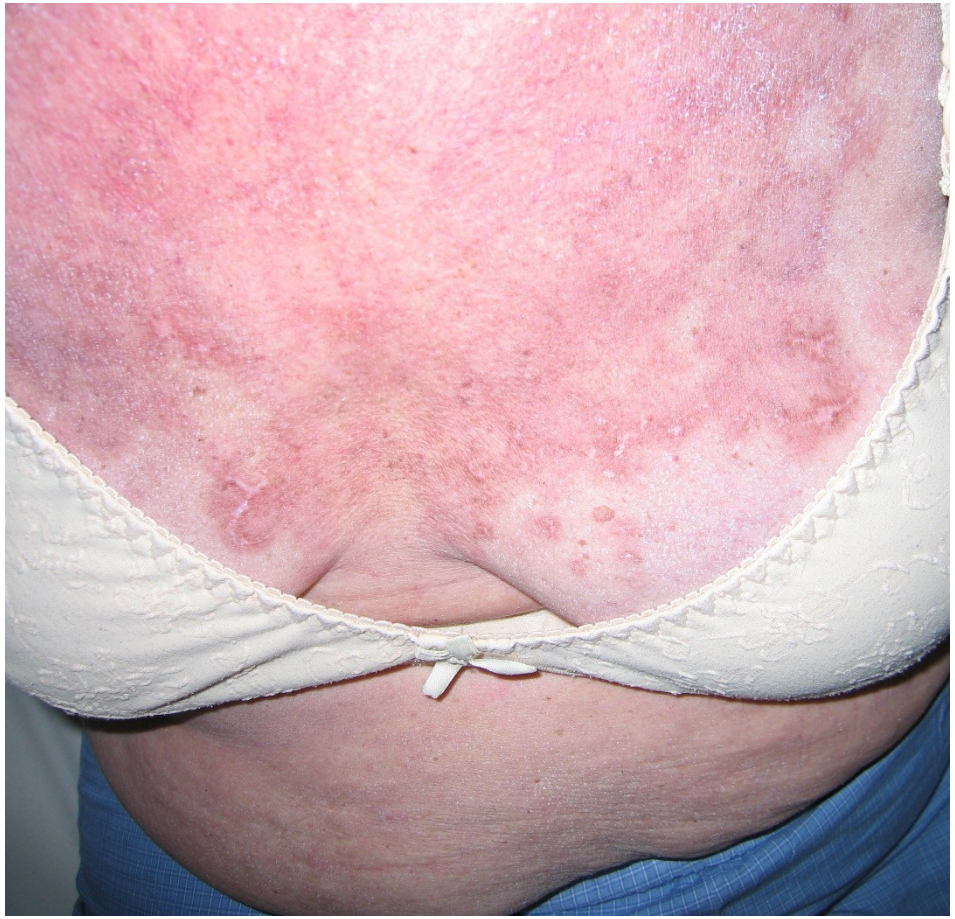
Subacute cutaneous lupus erythematosus - SCLE

- annular lesions
- papulosquamous lesions
- photosensitivity
- sicca syndrome secondary
- ANA, anti Ro/ SSA, La/SSB
- mild systemic disease
- neonatal LE (Ro 52 kD)









Lupus erythematosus

Therapy:

antimalarial drugs (hydroxychlorochine)

corticosteroids

immunosuppresives (cyclophosphamide, cyclosporine, MTX, azathioprine)

antiinflammatory drugs

UVA, UVB sunscreens

plasmapheresis, pulse therapy etc.

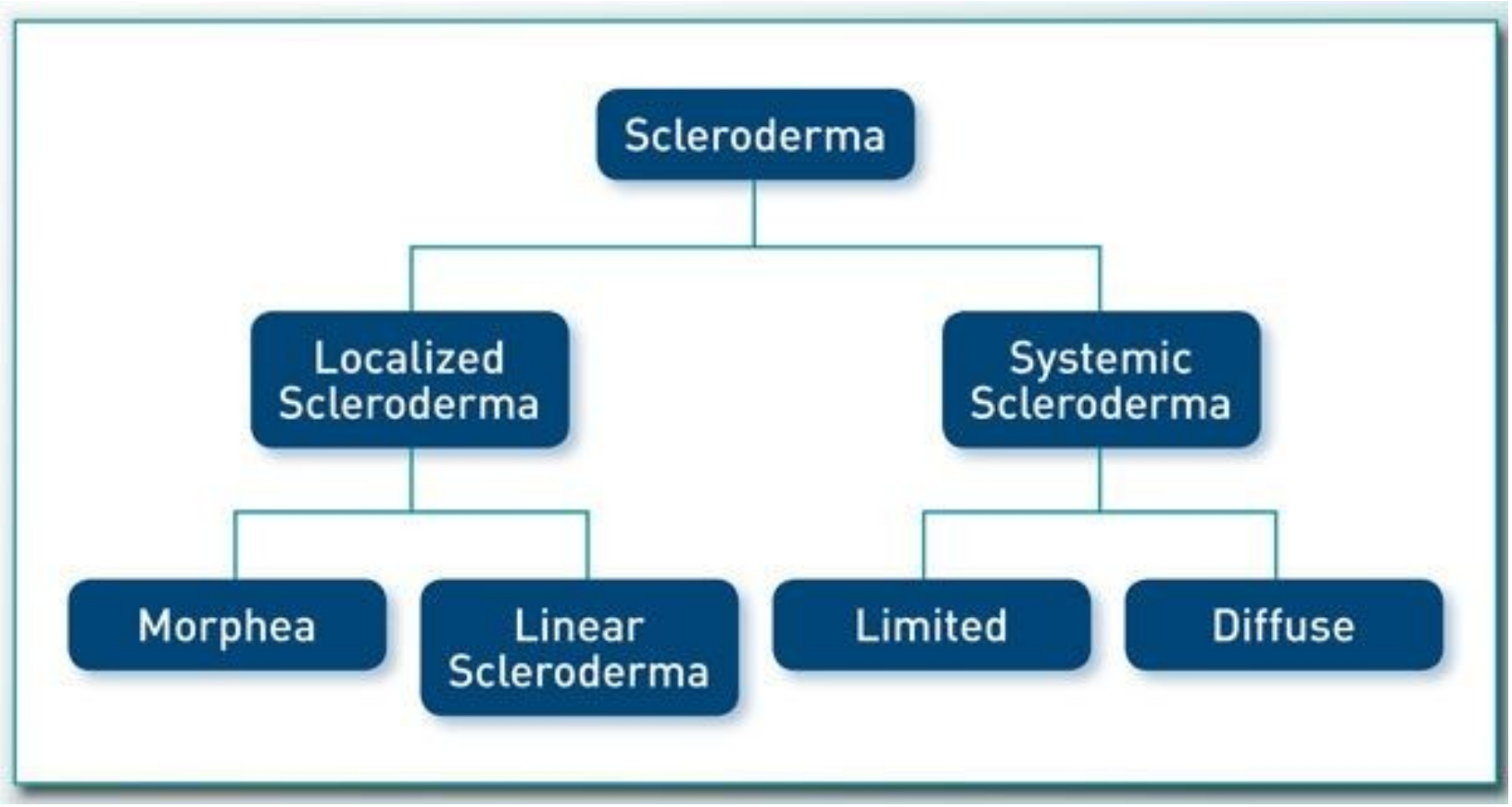
Belimumab (BAFF)

Scleroderma

- vascular changes – fibroplastic factors activation
- changes in collagen synthesis
- immunological changes –

  humoral (anti Scl70, ANA  , anti centromere ACA)

  cellular


Scleroderma
Localized Scleroderma
Systemic Scleroderma
Morphea
Linear Scleroderma
Limited
Diffuse

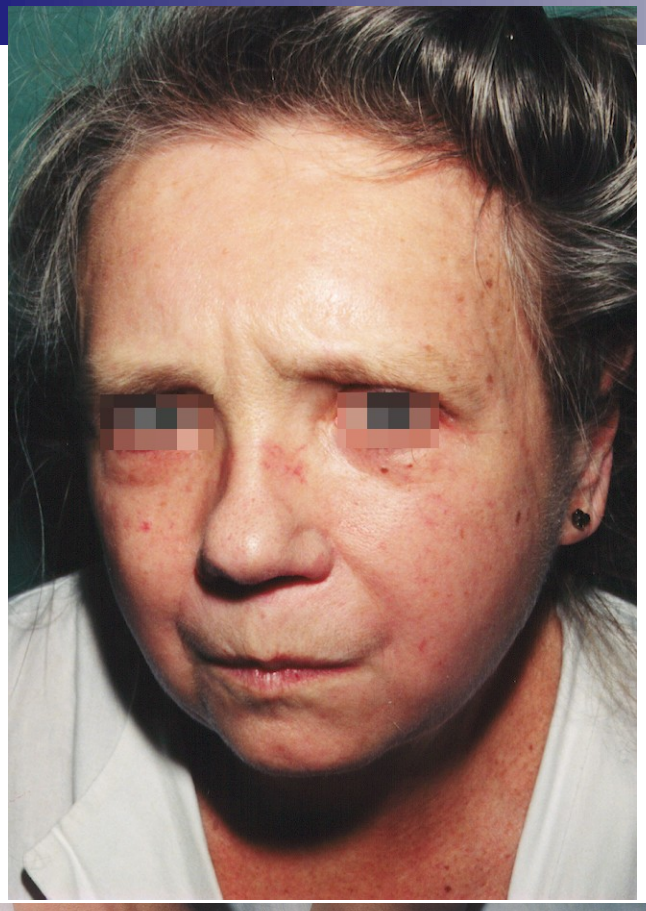
Systemic sclerosis - scleroderma

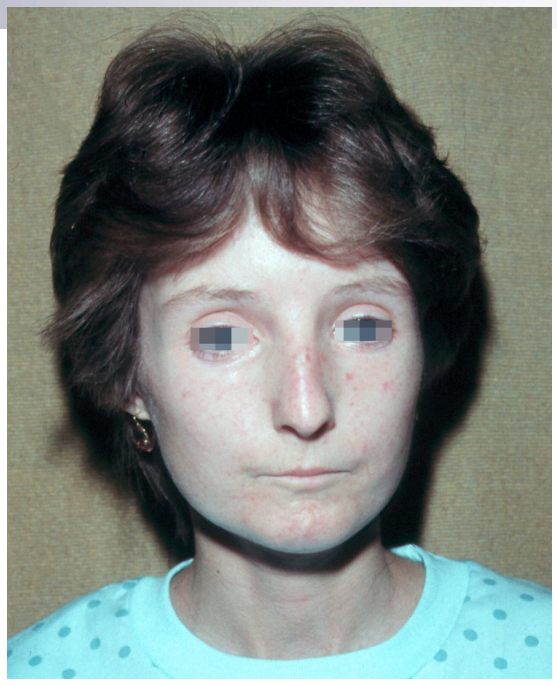
ARA criteria:

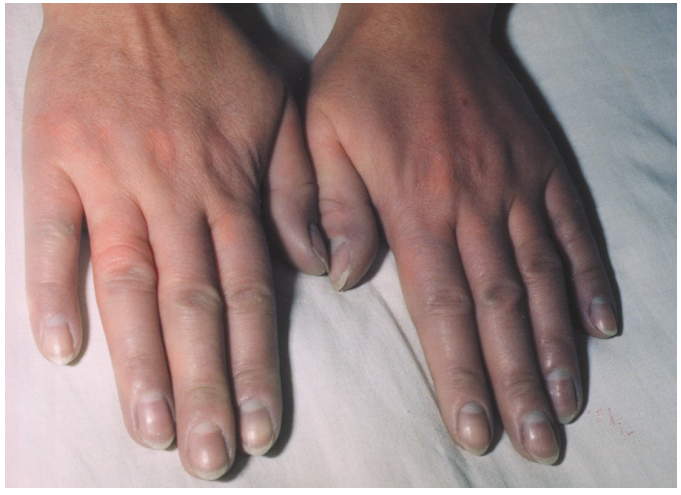
- proximal scleroderma
- bilateral lung interstitial fibrosis
- fingertip changes DUC digital ulcerations
- sclerodactyly

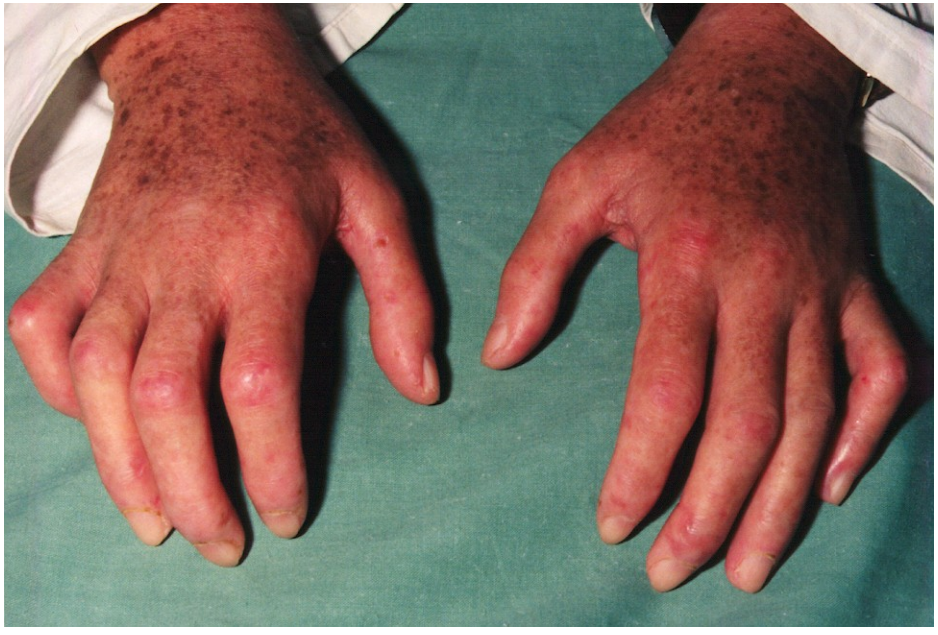
other signs:

- Raynaud ´s phenomenon
- esophageal changes
- renal disease
- pulmonary hypertension
- pericardial effusion

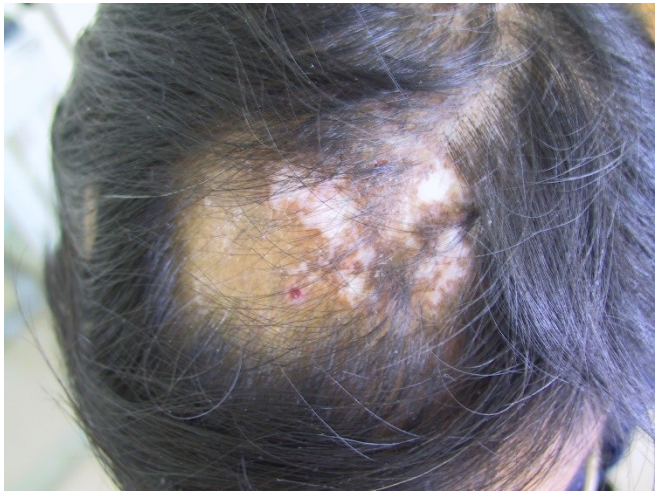


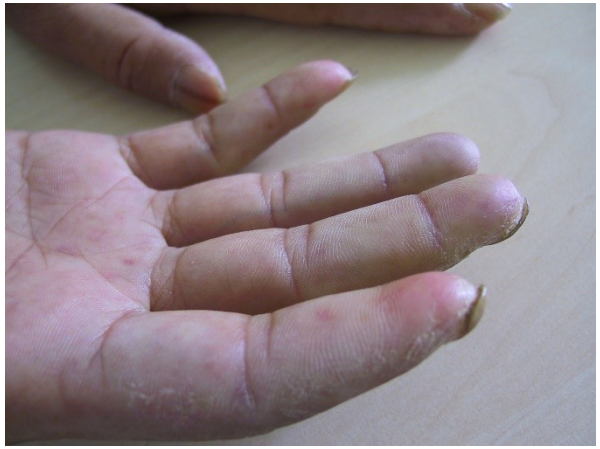


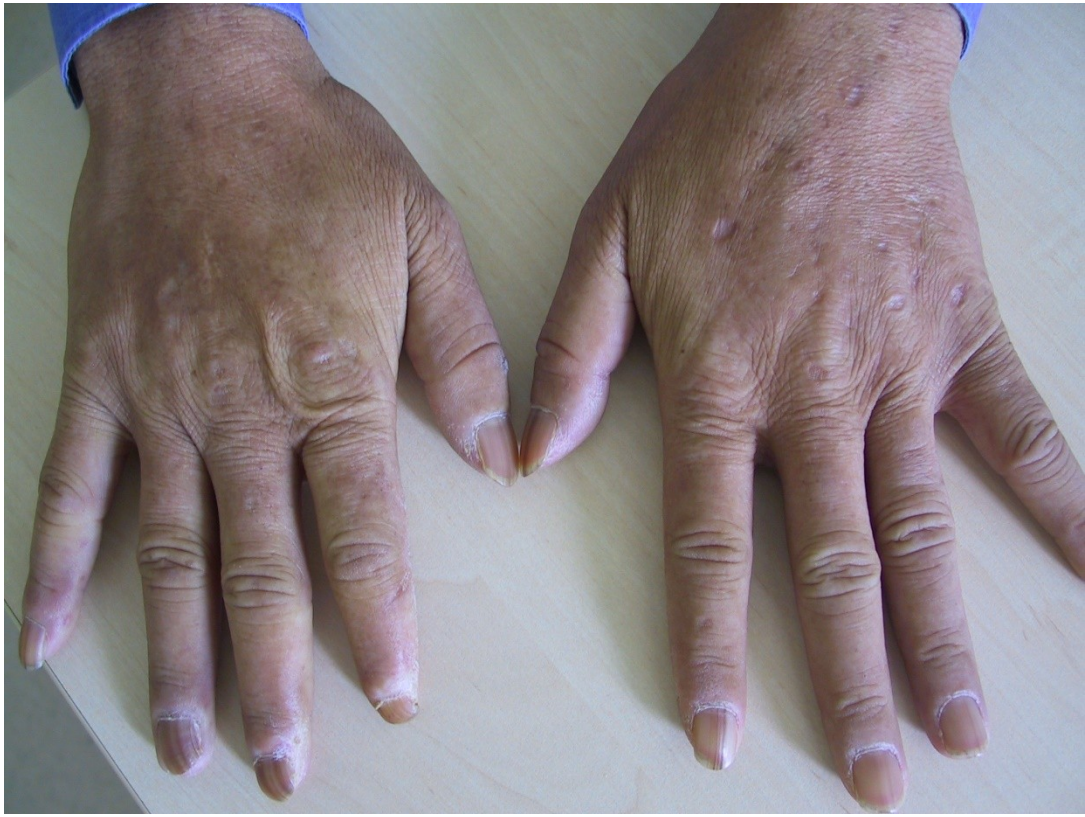




Scleroderma







CREST syndrome – limited scleroderma

- C alcinosis
- R aynaud
- E sophageal changes
- S cleroderma
- T eleangiectasias
- anti centromere antibody

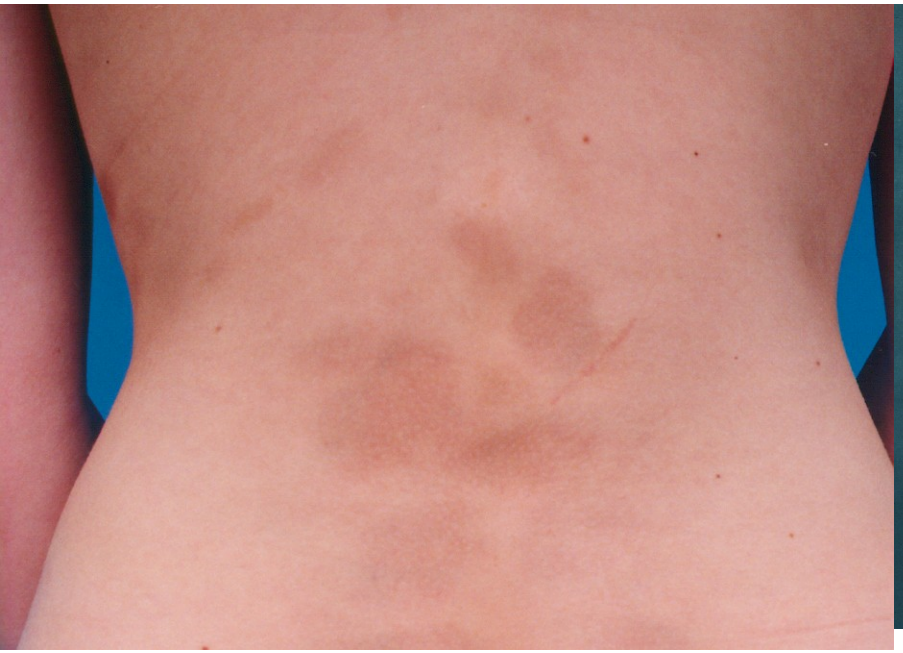
Systemic scleroderma

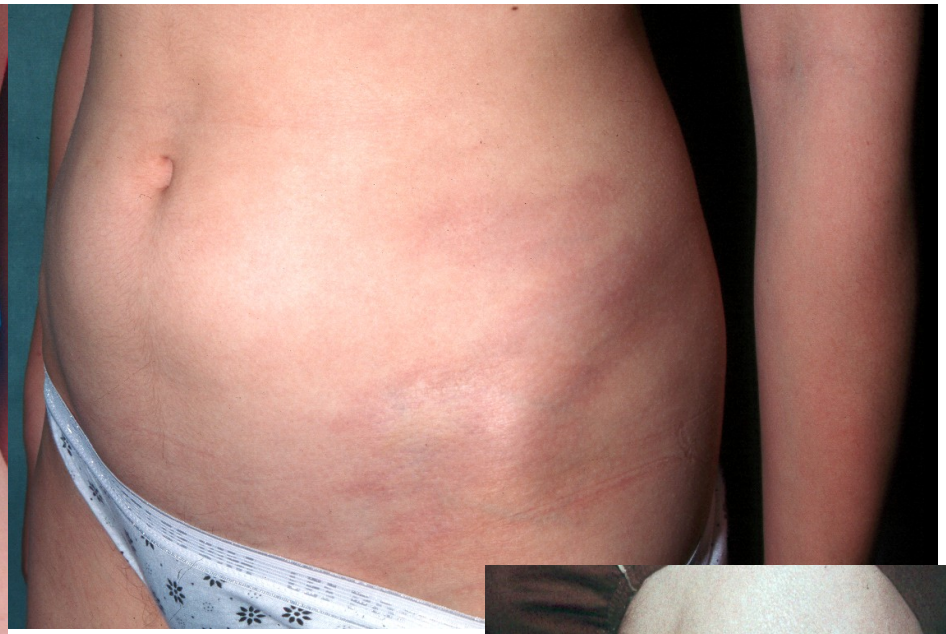
Therapy:

- corticosteroids
- immunosuppresives
- antimalarials
- d-penicillamine, penicillin
- vasoactive and rheological drugs (pentoxiphylline, prostavasin)
- calcium antagonists – nifedipine
- endothelin receptor antagonist – bosentan
- phosphodiesterase 5 antagonists - sildenafil
- ACE inhibitors - kidneys
- prokinetic drugs, antacids
- physiotherapy

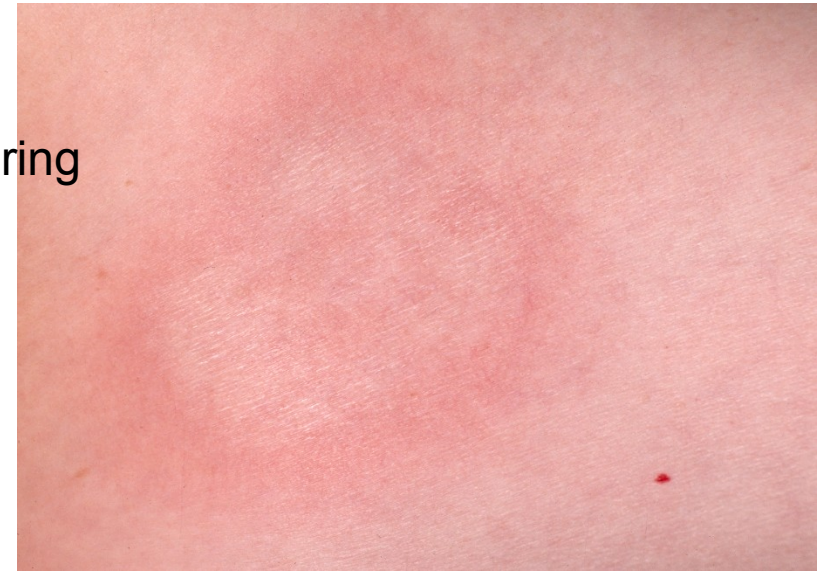
Localized scleroderma

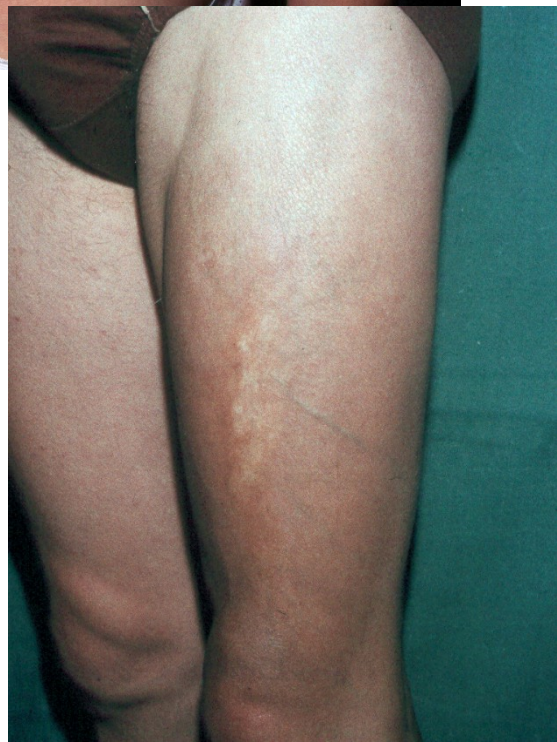
- morphea
- guttate
- linear
- generalized (pansclerotic morphea)
- subcutaneous – eosinophilic fasciitis
- ANA in low titers or none
- no systemic disease
- infections – late stage Lyme disease



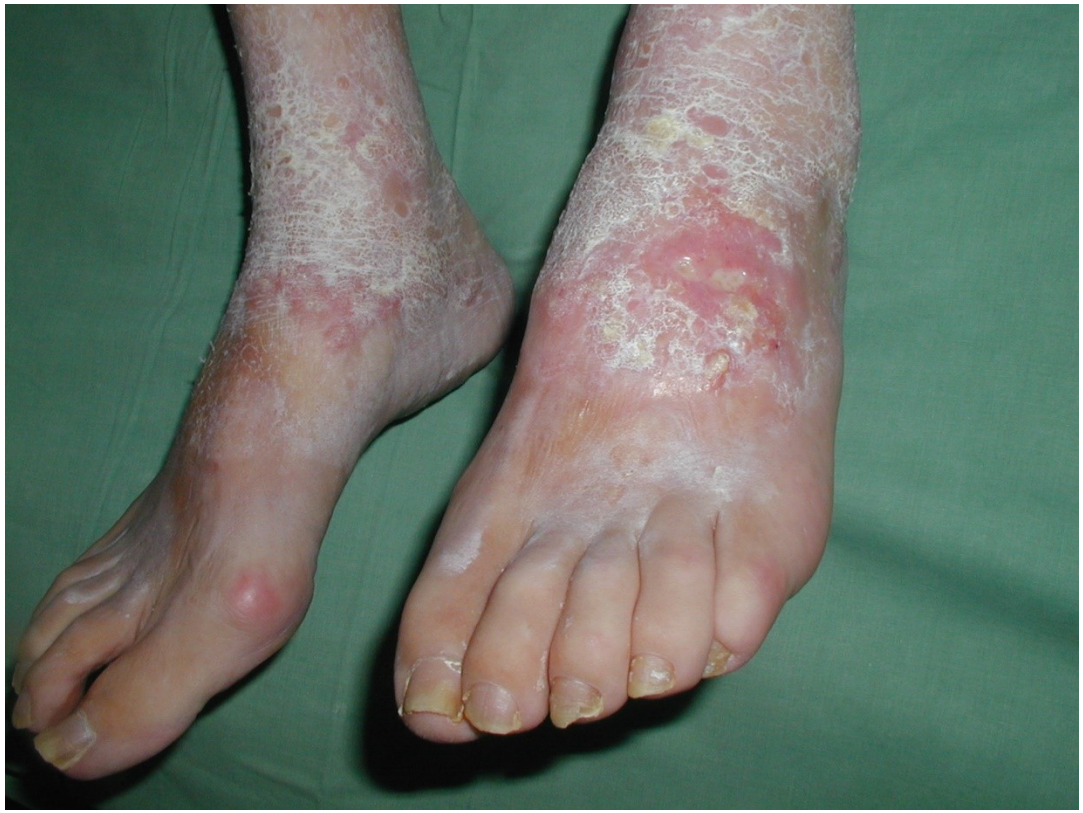


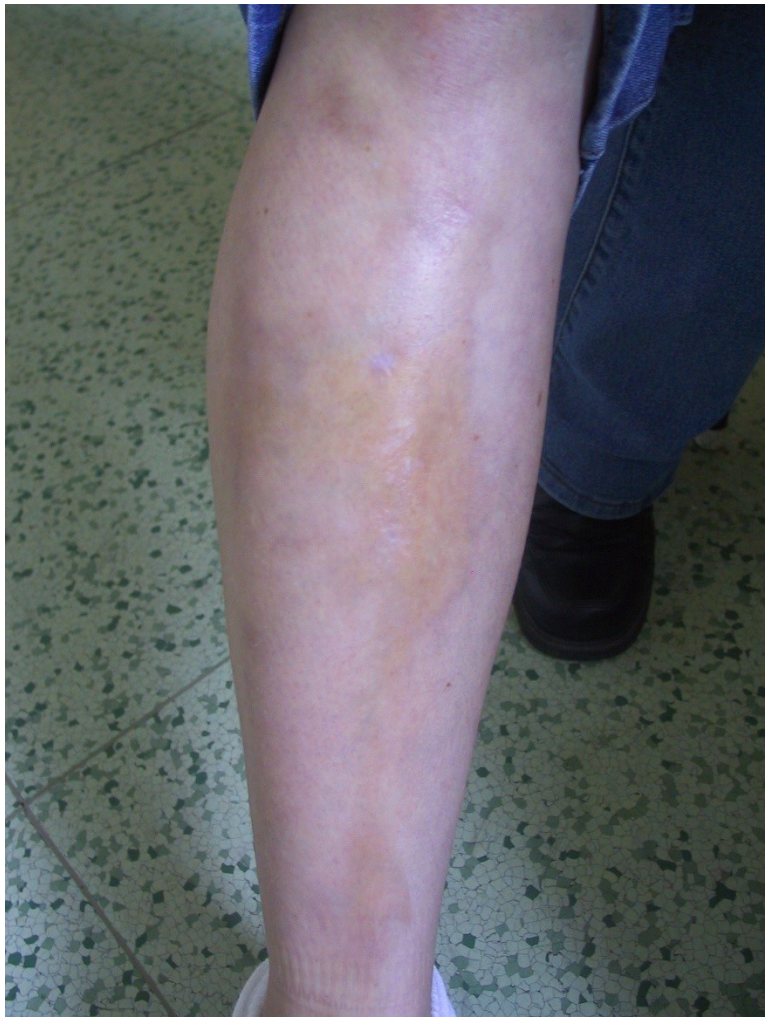
Lilac ring



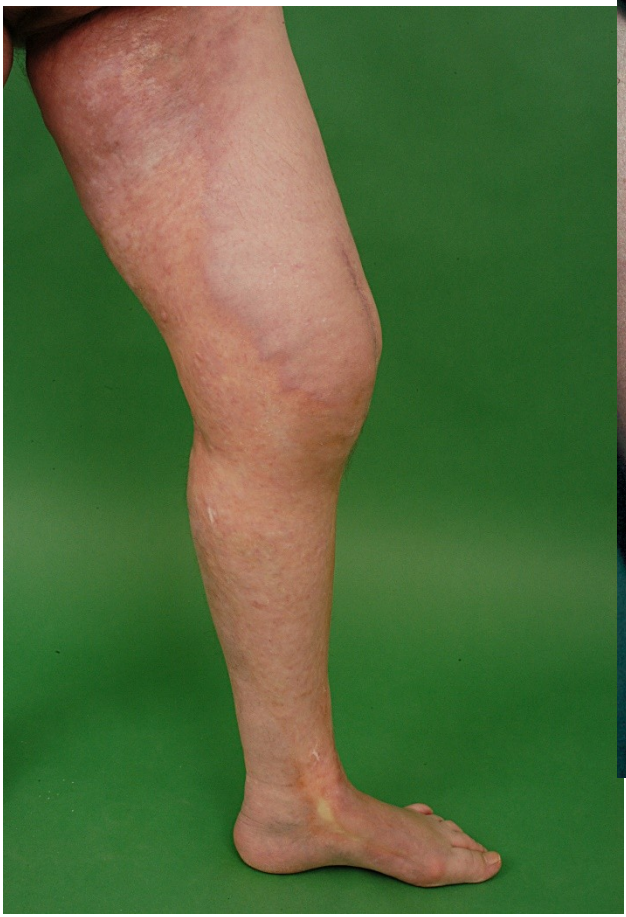


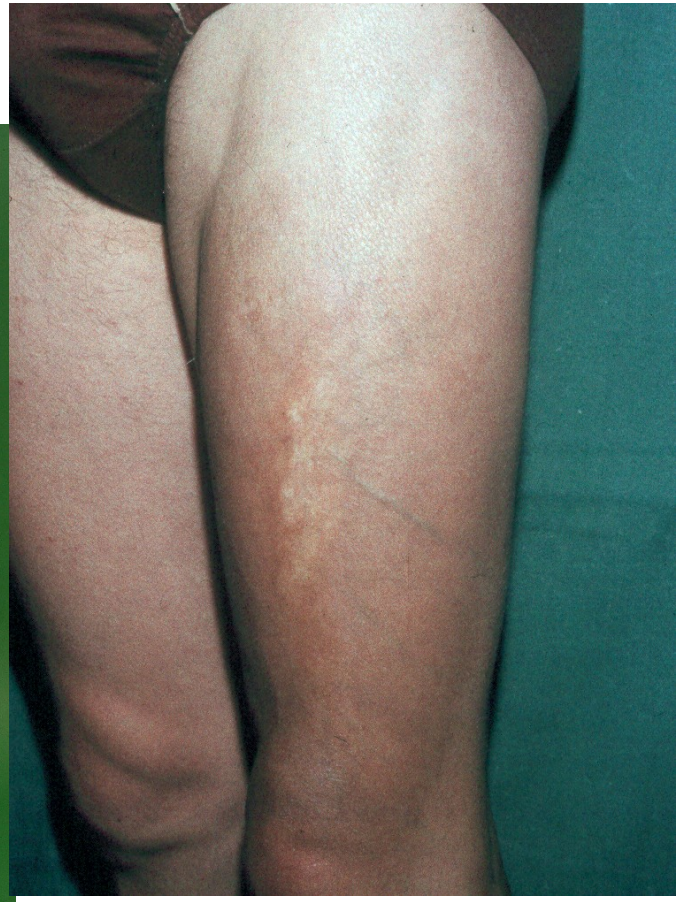
Localized scleroderma

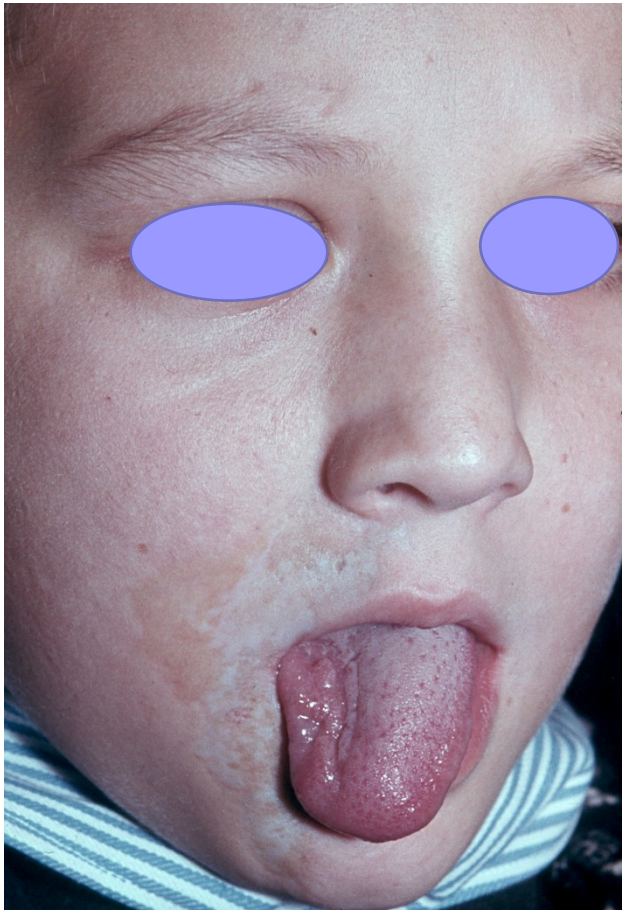




Linear scleroderma





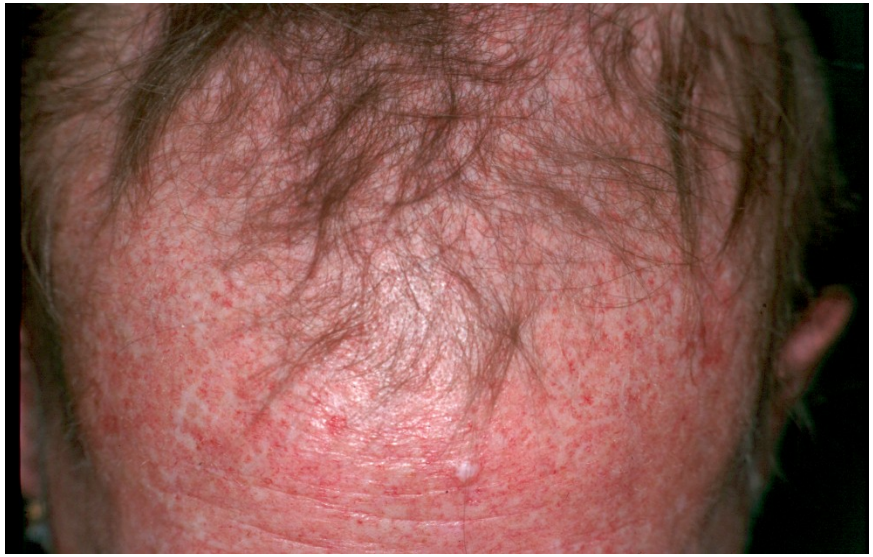


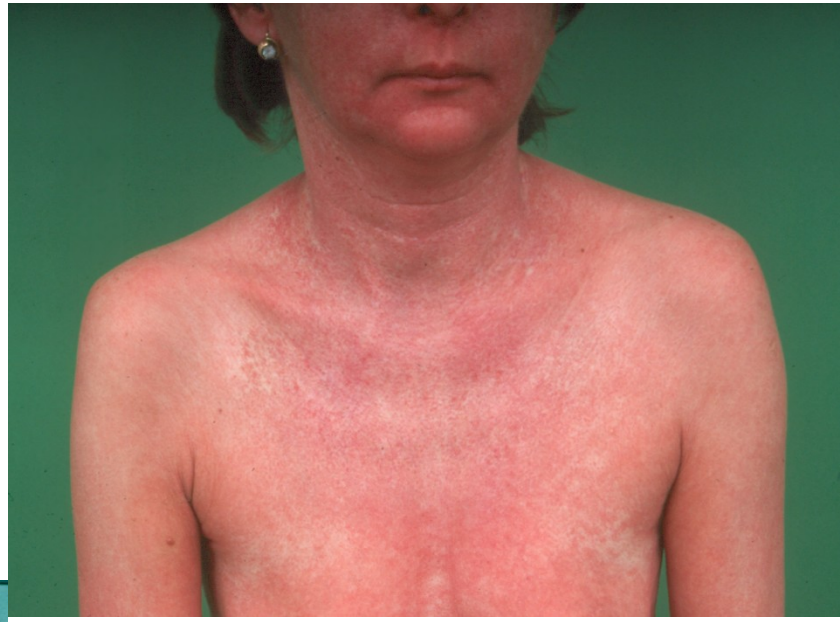
Localized scleroderma - therapy

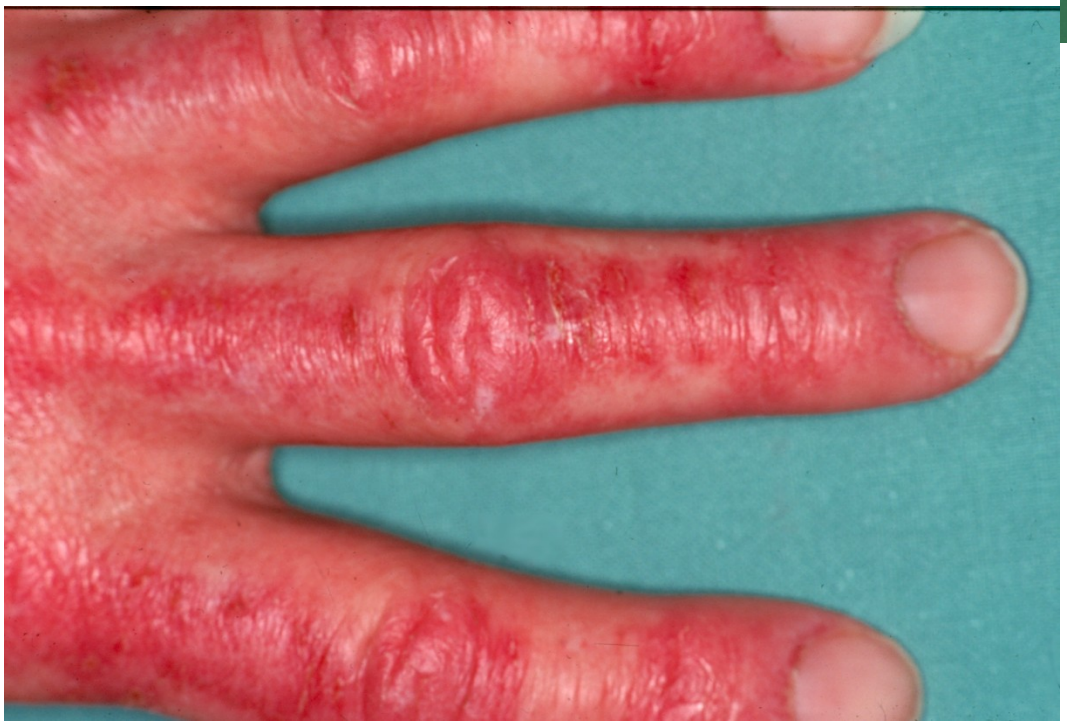
- Topical – corticosteroids, deltanoids, heparin
- Systemic- PNC
- Corticosteroids
- MTX
- Antimalarials
- UVA1

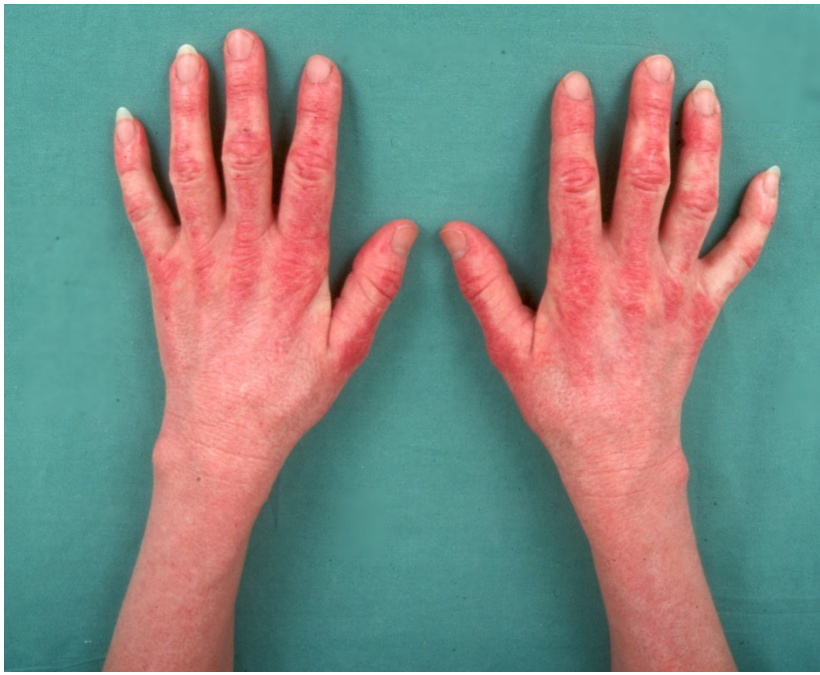
Dermatomyositis, polymyositis

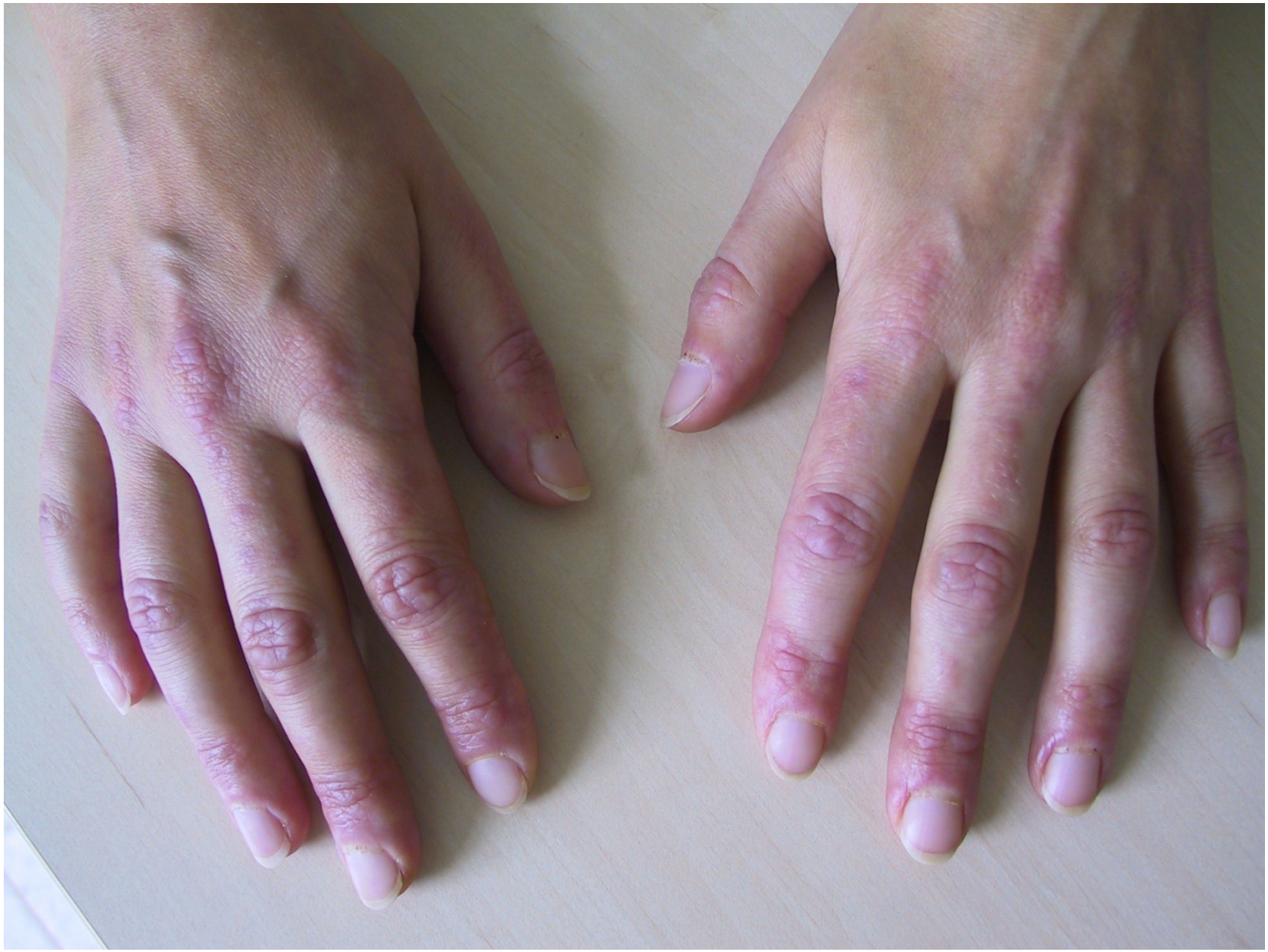
- **juvenile -** association with infections
- **adult - ** association with tumours (paraneoplastic)
- heliotrophic rash, Gottron´s sign, poikilodermatitis, erythemas
- EMG
- ANA, anti Jo-1
- CPK, LDH, GOT, ALD, AST, ALT, myoglobin
- Histology – muscle, skin

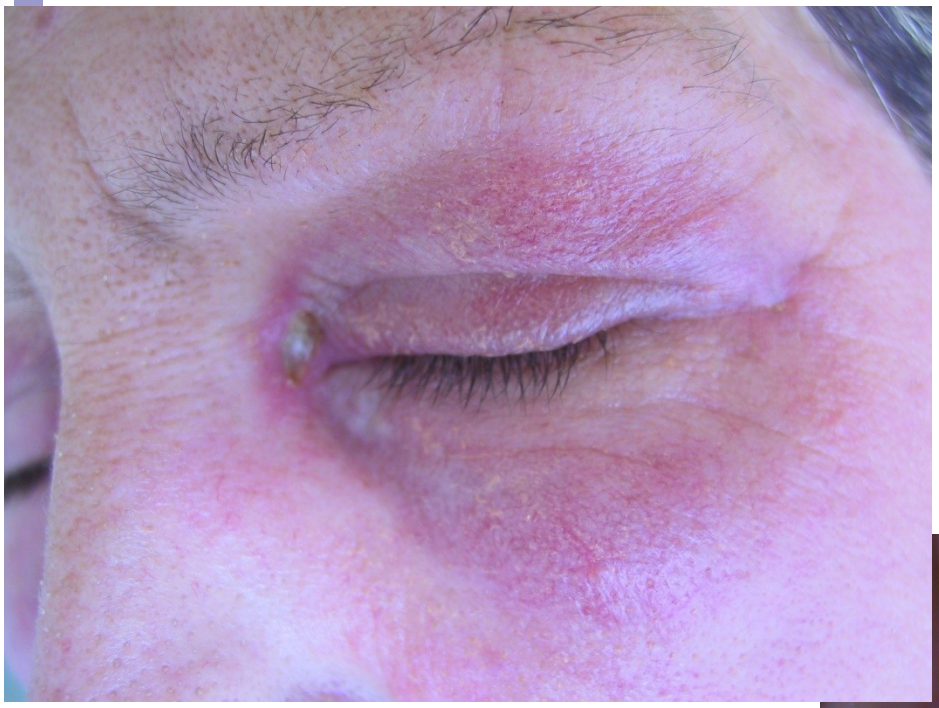


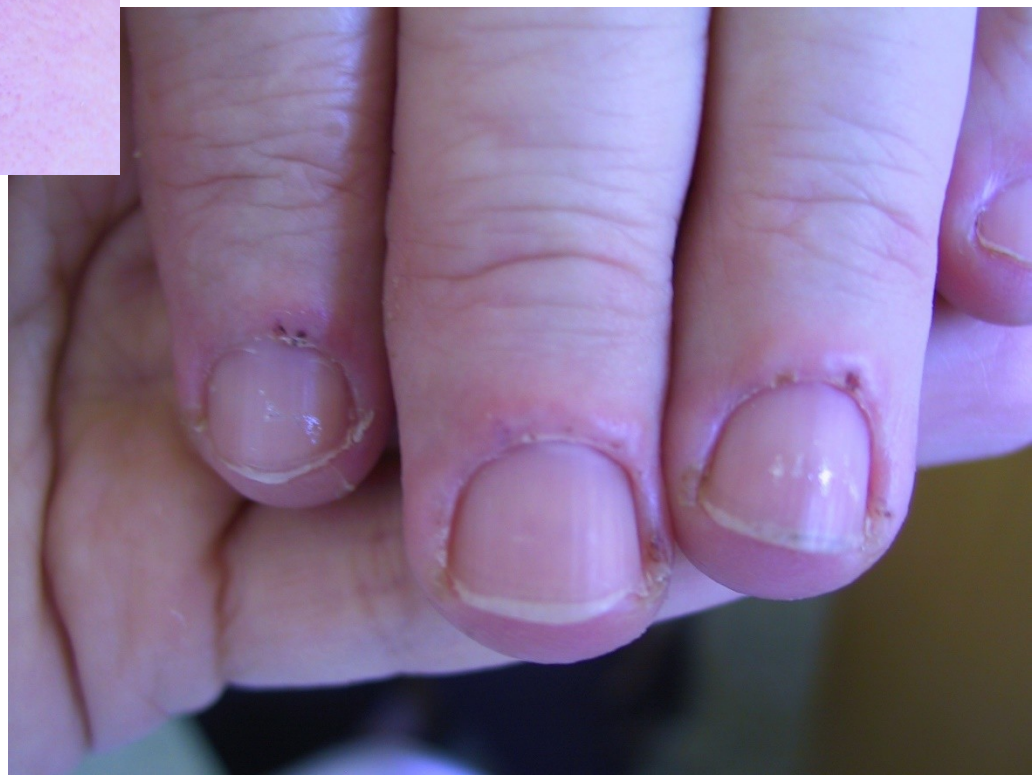












Dermatomyositis - therapy

- Corticosteroids
- Immunosuppresives - MTX, azathioprine, cyclosporine
- Antimalarials
- IVIG