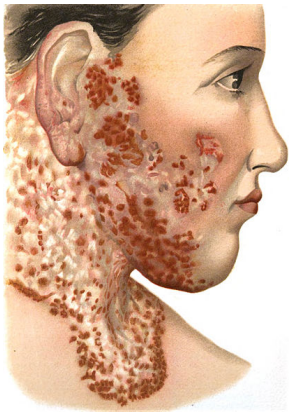
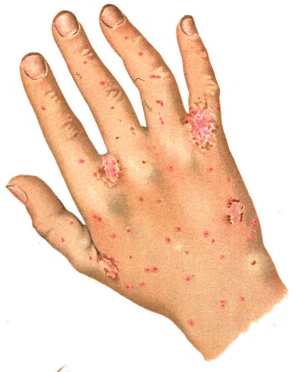
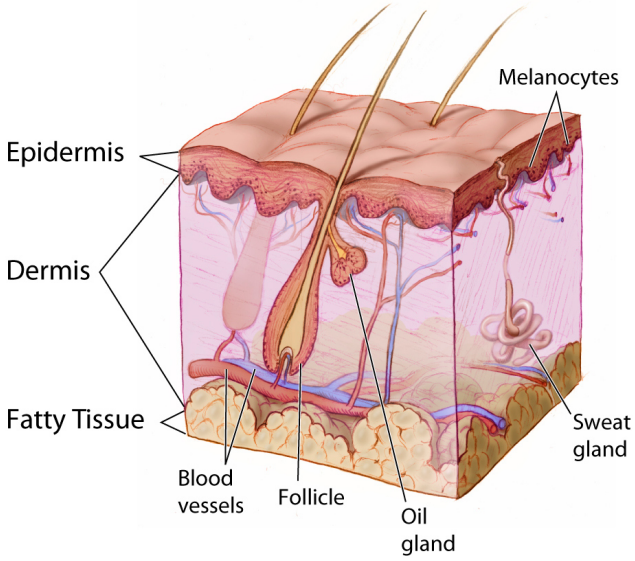
جامعة الملك سعود
King Saud University

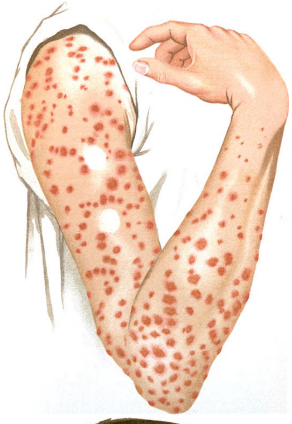


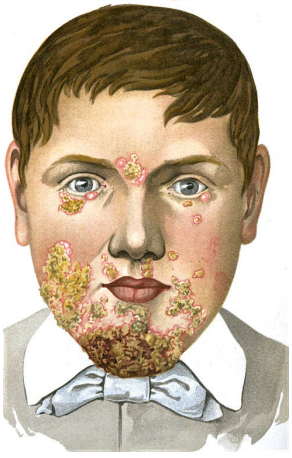
432 Teams

Dermatology









Papulosquamous disease

Color Code: Original, Team's note, Important, Doctor's note, Not important, Old teamwork

Done by: May H. Alorainy

Reviewer: Lama Al Tawil

Team Leader: Basil Al Suwaine & Lama Al Tawil

6

Dr. Alrasheed did not provide us with his PPT this year so we used last year's as a reference. It did not contain any pictures so we compiled pictures from the book, male 432 team and 431 team.

PAPULOSQUAMOUS DISEASES

Dr. Saleh Al rasheed
Consultant in Dermatology &
Laser Surgery
Assistant Professor - Dermatology Department
College of Medicine
KSU , Riyadh.

Papulosquamous diseases

are those in which the primary lesions typically consist of papules with scale

Primary lesion is papule with scale on top of it

The category of papulosquamous disease classically includes :

-Psoriasis

-Lichen planus

-Pityriasis rosea

-Seborrheic dermatitis

-Pityriasis rubra pilaris

-Secondary syphilis

-discoid lupus erythematosus,

-Ichthyosis-

-Miscellaneous (mycosis fungoides,) -

Psoriasis

الصدفية

Prevalence

- Psoriasis occurs in 2%(1-3%) of the world's population
- Equal frequency in males and females
- May occur at any age from infancy to the 10th decade of life
- First signs of psoriasis
  - Females mean age of 27 years
  - Males mean age of 29 years

Prevalence

- Two-thirds of patients have mild disease
- One-third have moderate to severe disease
- Early onset (prior to age 15)
  - Associated with more severe disease
  - More likely to have a positive family history
- Life-long disease
  - Remitting and relapsing unpredictably
  - Spontaneous remissions of up to 5 years have been reported in approximately 5% of patients

Etiology

- The cause of Ps. is still unknown
- The course of Ps. is inconstant → Does not have a clear pattern. It can be mild, moderate or severe. It can occur in winter or summer.
- Tendency to recur and to persist
- Koeber reaction (phenomenon)
- Auspitz sign: is pin point bleeding when a psoriatic scale is removed. (Severe thinning of the epidermis over the tips of dermal papillae)

  Auspitz: a German word
  Au = out
  pitz = pinpoint
- The psoriatic basal-cell is shed in about 4 days where as normal cell in 28 days — Cells grow and proliferate then die very rapidly forming scale. So scale = dead cells.
- The erythema is due to the dilatation & proliferation of the capillaries in the papillary dermis

Genetics and Pathogenesis

- Psoriasis and the Immune System
  - The major histocompatibility complex (MHC)
    - Short arm of chromosome 6
  - Histocompatibility Antigens (HLA)
    - HLA-Cw6
    - HLA-B13, -B17, -B37, -Bw16
  - T-lymphocyte-mediated mechanism

- Pathogenesis has a genetic component.
- High concordance rate in twins.

Triggering factors> Make psoriasis appear but do not actually cause it

- Infections- streptococcal pharyngitis/tonsillitis

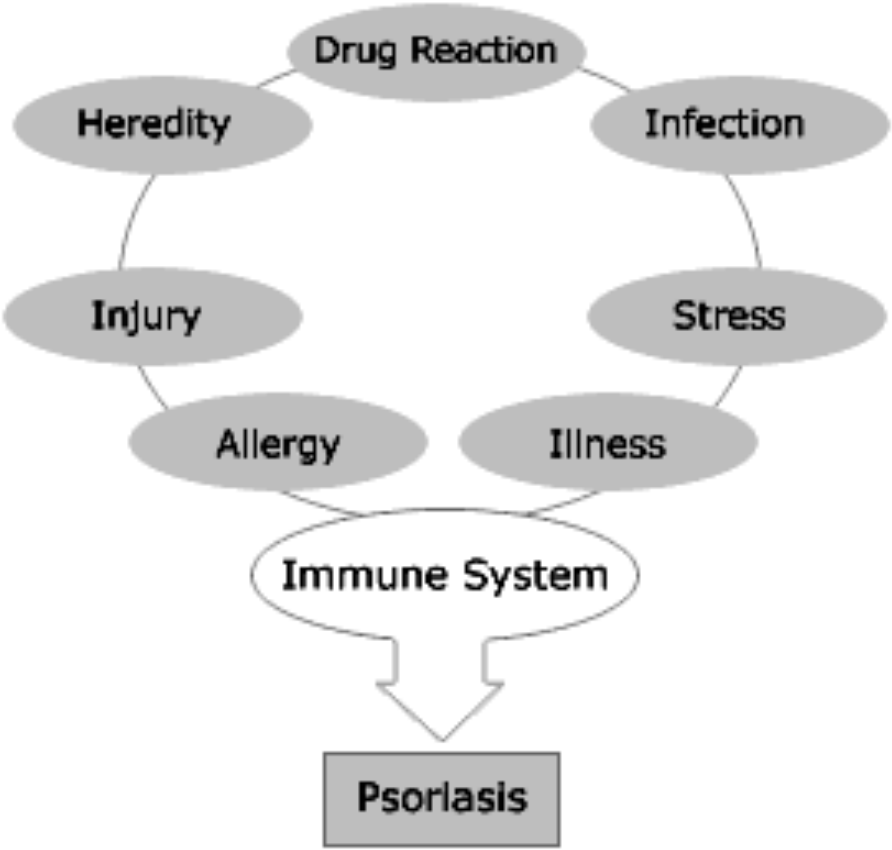
If a psoriasis patient is in the remission period and develops an URTI, the disease may be triggered and reappears.

- Drugs- NSAID, beta blockers, lithium, antimalarials, corticosteroids

- Trauma- Koebner phenomenon

- Pregnancy
- Stress
- Alcohol
- Sunlight- worsening in ~10% of patients although majority beneficial to sun exposure

Psoriasis Triggers



Psoriasis : clinical features

- Well defined & circumscribed plaque
- Erythematous base
- Silvery scaling
- Symmetrical
- Extensors of limbs, scalp, sacral area (elbows & knees)

❑ Auspitz's sign:

- light scraping of the scale with a wooden spatula produces multiple bleeding points
- extreme thinning of the epidermis over the capillary laden dermal papillae

Psoriasis as a Systemic Disease

- Koebner Phenomenon
- Elevated ESR
- Increased uric acid levels → gout
- Mild anemia
- Elevated α_2-macroglobulin
- Elevated IgA levels
- Increased quantities of Immune Complexes

- In recent studies, obesity, cardiovascular diseases, diabetes and hypertension (metabolic syndrome) were found to be associated with psoriasis.
- In some conditions, psoriasis remits with weight loss (especially waist area).

Clinical Variants of Psoriasis

Clinical Types of Psoriasis

A. Non-pustular Psoriasis

B. Pustular Psoriasis With puss

- **Localized**
- **Generalized**

C. Erythrodermic Psoriasis

D. Psoriatic arthritis

A. Non-*pustular* Psoriasis

starts as erythema then papule then scale appears

- Chronic Plaque Psoriasis
- Regional Psoriasis
- Scalp Psoriasis
- Palmo-plantar Psoriasis
- Inverse Psoriasis (Flexural)
- Nail Psoriasis
- Guttate Psoriasis

Chronic Plaque Psoriasis

- AKA psoriasis vulgaris.
- "Valguris" is a greek word which means "common".

- ~80% of psoriasis
- Characteristic erythematous well defined circumscribed silvery scaly patches/ plaques

Acutely starts as an annular lesion

- Koebner phenomenon
  - Appearance of psoriasis in sites of skin trauma or pressure e.g. scratch marks, operation sites .

Scenario: Patient with a positive family history develops the disease after getting a tattoo or piercing at the same site.

Psoriasis patient develops new psoriatic lesion at the site of trauma (mechanical, physical or chemical).

  - Present in lichen planus, vitiligo, viral wart
- "Atypical" with no scaling in moist flexural intertriginous area

Only erythema

Chronic Plaque Psoriasis

- Most Common Variant
- Plaques may be as large as 20 cm
- Symmetrical disease and bilateral
- Sites of Predilection
  - Elbows
  - Knees
  - Presacrum
  - Scalp
  - Hands and Feet

Chronic Plaque Psoriasis

- May be widespread – up to 80% BSA
- Genitalia involved in up to 30% of patients
- Most patients have nail changes
  - Nail pitting
  - "Oil Spots"
  - Involvement of the entire nail bed
    - Onychodystrophy
    - Loss of nail plate

❑**Auspitz's sign:** Elicit it in the knee

- light scraping of the scale with a wooden spatula produces multiple bleeding points
- extreme thinning of the epidermis over the capillary laden dermal papillae

Koebner phenomenon

- Appearance of psoriasis in sites of skin trauma or pressure e.g. scratch marks, operation sites .
- Present in : lichen planus, vitiligo, viral wart

Scalp Psoriasis

- Common
- Well demarcated erythematous silvery scaly plaque with normal skin intervening
- Post-auricular area commonly involved
- Non scarring alopecia when severe, regrow when condition improve
- DDx with seborrhoeic dermatitis by presence of typical plaque elsewhere +/- psoriatic nail changes
  - -Psoriasis: scale or plaque exceed the hairline
  - -Seborrhoeic dermatitis, dandruff: confined to hairline

Palmoplantar Psoriasis

- Common
- Indurated heavily scaled plaque +/- fissuring If the patient wears shoes all day long, scale may not show.
- Well-demarcated
- DDx with foot/ hand eczema
  - -Fungal infection
  - -Secondary syphilis

Nail Psoriasis

- ~50% of psoriasis have nail changes
- Pitting Due to shedding of cells from the nail plate
- Onycholysis (separation of nail plate from nail bed)
- Oil drop sign (a yellow brown, subungual spot surrounded by erythema)
- Subungual hyperkeratosis (between nail plate and nail bed)
- Secondary onychomycosis is common

Psoriatic lesion affecting the nail bed —> scale accumulates and lifts off the nail plate —> air easily gets underneath giving oil drop sign.

Onychomycosis involves the proximal part of the nail while psoriasis involves the distal

Guttate Psoriasis

Lesion looks as if I splashed water on skin

صدفية نثرية او قطرية

- Latin “gutta” means a drop
- Mainly affects children and young adults
- Characterized by numerous 0.5 to 1.5 cm papules /plaques
- Very small plaques generalized with centripetal distribution
- May coalescent into larger plaques
- Preceded by streptococcal tonsillitis or pharyngitis 2 weeks before onset

Patient goes back to normal after tonsillectomy

- Spontaneous remissions in children
- Often chronic in adults

The lesion appears red in light skinned people (e.g. europeans) whereas in dark-skinned people (e.g. middle easterns) the lesion appears white due to scale

Flexural Psoriasis

- Psoriasis affecting axillae, perineum and umbilicus Below the breast is a common site
- Atypical psoriasis as friction & humidity removes the scale (diagnostic confusion)
- Irritating when sweating

- in wet psoriasis the woods lamp will appear florescent , but if itching was assosiated with it think of fungal intertrigo

Life–Threatening Forms of Psoriasis

- Generalized Pustular Psoriasis = Papule + puss + scale
- Erythrodermic Psoriasis

Palmoplantar Pustular Psoriasis

- Relatively uncommon variant
- Painful, sterile pustules develop within plaque at palms and soles
- Pustules resolve to leave post inflammatory hyperpigmentation
- Female predominance
- 20% associated with psoriasis elsewhere
- Almost exclusively associated with smoking
- Resistant to topical treatment

Generalized Pustular Psoriasis

- Von Zumbusch's disease
- Erythematous edematous plaques studded with monomorphic sterile pustules. often after short episodes of fever of 39˚ to 40˚C Pus turns brown in color when it dries
- Weight loss , Muscle Weakness, Hypocalcemia Leukocytosis , Elevated ESR
- Precipitated by :
- withdrawal of oral steroid or widespread use of ultra potent topical steroid
- pregnancy
- Can be life-threatening due to fluid loss, sepsis

Erythrodermic Ps. AKA Red Man Syndrome

- Universal redness & scaling — Very severe basal shedding that you find scale in the area where the patient was sitting.
- Often nail & hair growth disturbance
- May be an end-result of acute Ps.
- Exfoliative Ps. — It is a serious condition that must be managed effectively in the ER
  - Unwell, fever, leucocytosis
  - Excessive of body heat & hypothermia
  - Inc. cut. blood flow ➡ high card. output ➡ heart failure
  - Inc. percutaneous loss of water ➡ Inc. loss of protein & iron (through scales) ➡ hypoproteinaemia & iron defficiency anaemia.
- Increase epidermal permeability ?? topical steroids
  - There is very high cutaneous blood flow that if you put water on the skin, it will be absorbed immediately.
  - Topical steroids will be absorbed in a lot higher concentrations than in normal skin. This may result in amplified side effects similar to those of systemic steroids.

Erythrodermic Psoriasis

- >90% of BSA affected
- Life threatening with transcutaneous fluid loss, temperature dysregulation, sepsis, high output, cardiac failure
- Other DDx of erythroderma- atopic eczema, drug eruption , cutaneous T cell lymphoma, pityriasis rubra pilaris

Erythrodermic Psoriasis

- Triggering Factors
  - Systemic Infection
  - Withdrawal of high potency topical or oral steroids
  - Withdrawal of Methotrexate
  - Phototoxicity
  - Irritant contact dermatitis

Drug-provoked (Induced)psoriasis: Reported agent

Mostly in older individuals

MOST COMMONLY ASSOCIATED AGENTS

Beta blockers

Scenario:
Normal person was prescribed beta blockers to control their hypertension develops psoriasis after 3 weeks of use.

Lithium

Antimalarial

Nonsteroidal Anti-Inflammatory Drugs

Psoriatic Arthritis

- ~10% of chronic plaque psoriasis
- Only ~15% of cases with skin and joint disease begin simultaneously
- ~60% of skin disease precedes arthritis
- ~25% of arthritis precedes skin disease
- Probably a positive correlation between severity of skin disease and arthritis developing
- Association: HLA B27: sacro-ileitis;
- B38 and DR7: peripheral arthritis;
- B39: all types;
- DR4: symmetrical arthritis

5 Types of Psoriatic Arthropathy

- Classical distal arthropathy-distal IP joint
- Seronegative RA-like polyarthritis
- Oligoarticular asymmetrical arthritis
- Spondyloarthropathy- Ankylosing spondylitis-like
- Arthritis mutilans

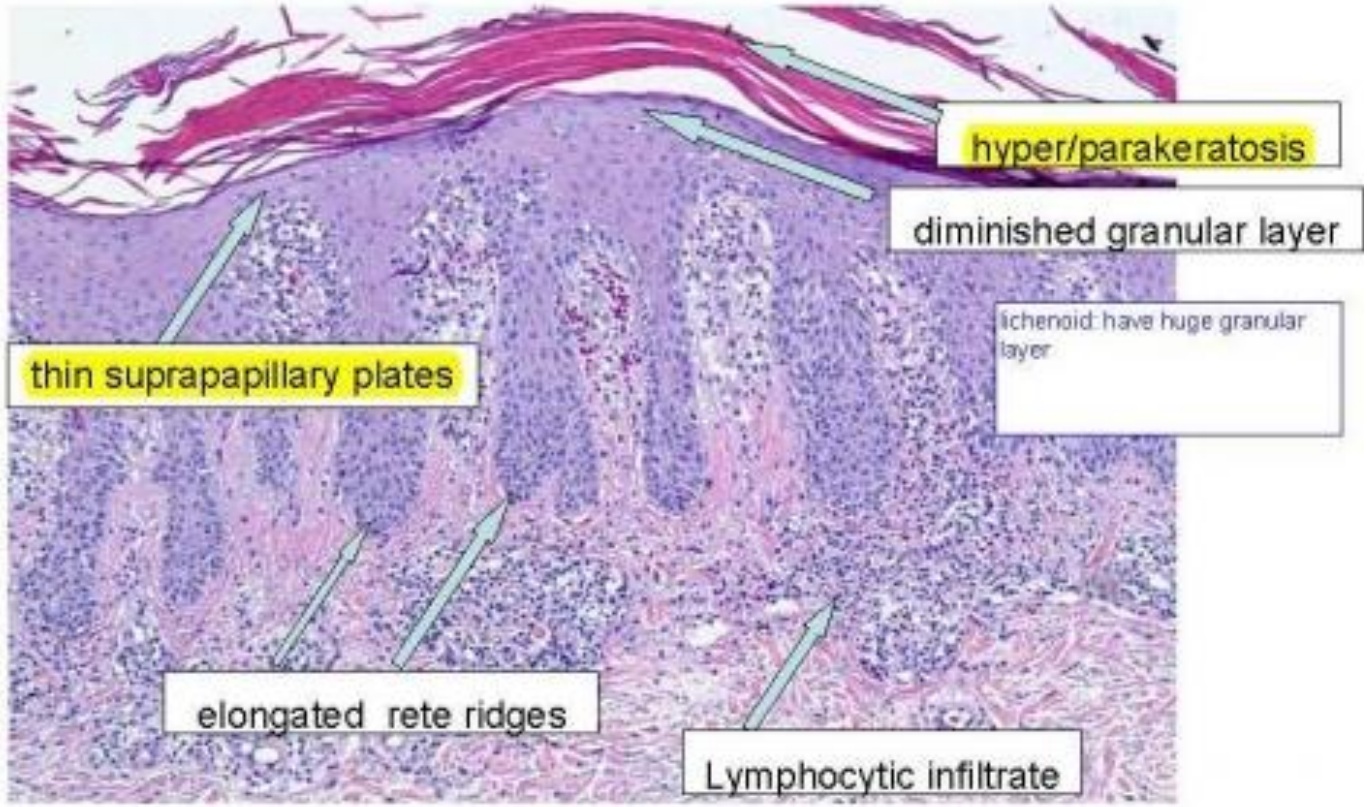
Psoriatic Arthritis treatment Managed by rheumatology

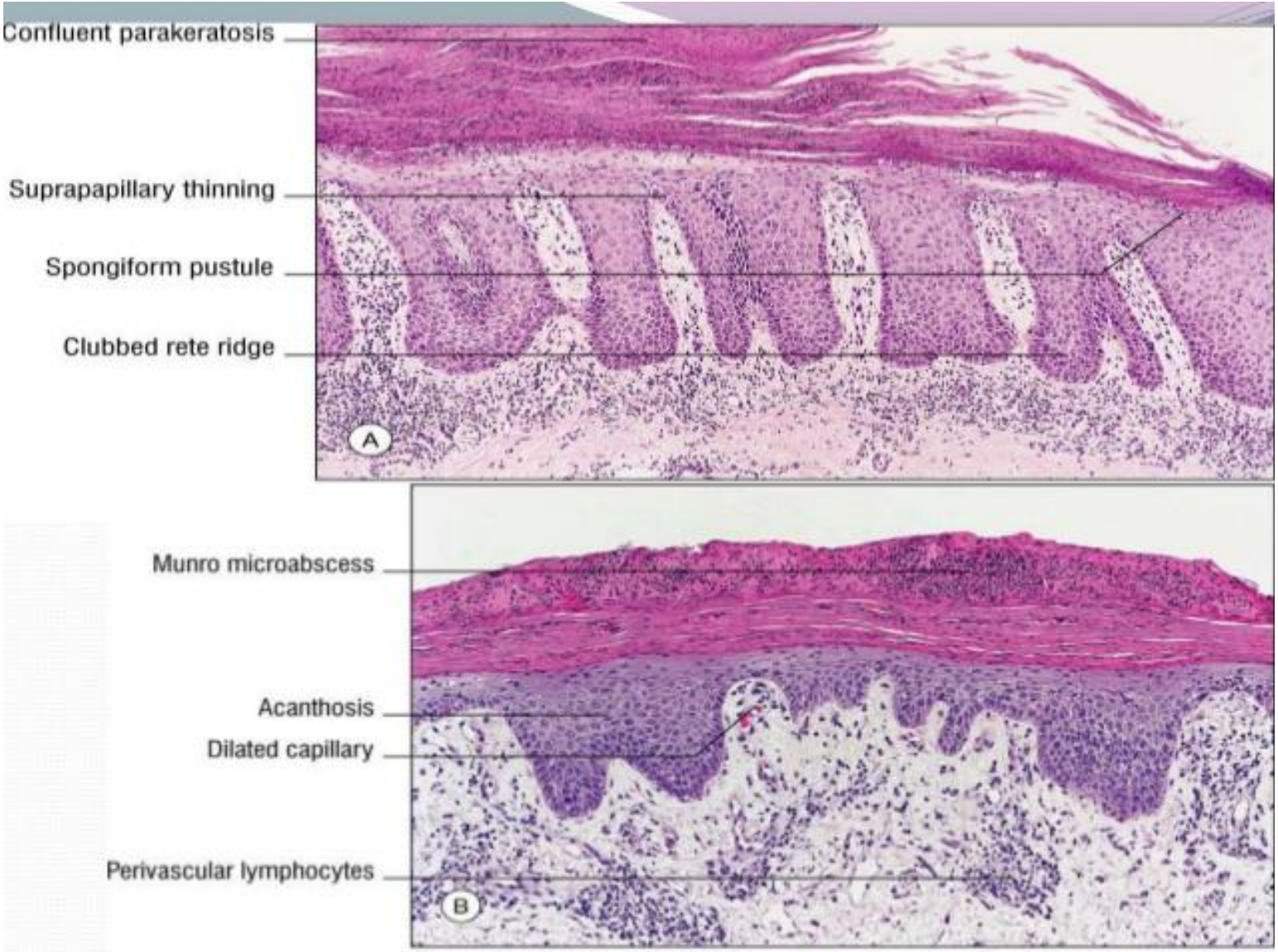
- NASIDs- may exacerbate psoriasis
- Methotrexate
- Sulphasalazine
- Cyclosporine
- Systemic steroid- may make the skin lesions more difficult to control
- Biologics

Histopathological changes

If you are asked to enumerate histopathological findings of psoriasis you could say:
1) Parakeratosis.
2) Acanthosis
3) Munro abscess

- Inflammation
- Epidermal keratinocyte hyperproliferation
- (parakeratosis) incomplete cornification of keratinocytes with retention of nuclei
- (acanthosis), irregular thickening of the epidermis over the rete ridges but thinning over dermal papillae
- (munro abscesses) epidermal polymorphonuclear leucocyte infiltrates
- Vascular proliferation :dilated capillary loops in the dermal papillae


hyper/parakeratosis
diminished granular layer
lichenoid: have huge granular layer
thin suprapapillary plates
elongated rete ridges
Lymphocytic infiltrate


Confluent parakeratosis
Suprapapillary thinning
Spongiform pustule
Clubbed rete ridge
A
Munro microabscess
Acanthosis
Dilated capillary
Perivascular lymphocytes
B

Laboratory findings

- Elevated uric acid
- Mild anemia
- Negative nitrogen balance
- Increase sedimentation rate
- Increase alpha-2-microglobulin
- Incresae IgA and IgA immune complex

Differential diagnosis

Erythroderma

- Atopic dermatitis
- Sezary syndrome
- Drug eruption
- Generalized contact dermatitis

Intertrigenous psoriasis

- Candidiasis
- Contact dermatitis
- Darier’s disease

Differential diagnosis

Psoriasis vulgaris

- Nummular eczema
- Mycosis fungoides, plaque stage
- Tinea corporis

Guttate psoriasis

- Pityriasis rosea
- Pityriasis lichenoides et varioliformis
- Syphillis
- Tinea corporis

Differential diagnosis

Nail psoriasis

- Tinea ungium
- Dyskeratosis : secondary to injury

Scalp and face

- Seborrheic dermatitis

Genitalia

- In situ squamous cell CA

remember psoriasis usually involves skin , nails, and joints

but lichen planus involves the skin , nails , and mucus membranes

Current Treatment Approaches

Keep in mind that psoriasis is not a curable disease. Once you stop treatment, it will return

Treatment Options

Treatment is a ladder

- Monotherapy
- Combination therapy
- Rotational therapy
- Sequential therapy

Treatment of Psoriasis

- What influences therapy choice?
  - Clinical type and severity of psoriasis (eg, mild vs moderate-to-severe), assessed by Psoriasis Area and Severity Index (PASI)
  - Response to previous treatment
  - Therapeutic options
  - Patient preference
- The "1-2-3" step approach is no longer generally accepted for disease more than mild in severity
  - Level 1: Topical agents—do not work
  - Level 2: "Phototherapy"—difficult; not always available
  - Level 3: Systemic therapy
- Risk in relation to benefit must be evaluated

Camisa C. *Cleve Clin J Med*. 2000;67:105-119.

Topical Agents

- Initial therapeutic choice for mild-to-moderate psoriasis (Not more than 5-10 lesions)
  - Emollients Moisturiser like vaseline to remove the sacle
  - Keratolytics (salicylic acid, lactic acid, urea)
  - Coal tar Safe option but has an unpleasant odor
  - Anthralin
  - Vitamin D_3 analogues (calcipotriene)
  - Corticosteroids
  - Retinoids (tazarotene, acitretin)
- Compliance can be difficult due to amount of time required to apply topicals 2 to 4 times/day

Carrieo C. *Cleve Clin J Med.* 2000;67:105-119.

Systemic Therapy

- Systemic therapy should be reserved for patients with disabling psoriasis despite topical therapy
  - Psoralen + UVA light
  - Oral retinoids: acitretin (+/- phototherapy)
  - Methotrexate
  - Cyclosporine

UV light types:
-A = 280-315 wavelength
-B = 315-400 wavelength
-C = causes cancer and burns

-UV light (broad band) was used previously in phototherapy. The treatment session used to take hours.
-Nowadays we have UVB (narrow band): it is UVB but limited to a single wavelength (ranges from 308-313). Session takes less than a minute.
-Excimer laser: narrow band but tubal in shape. Used for small or sensitive areas like genitalia, beasts, eyelid or nails.

Camisa C. Cleve Clin J Med. 2000;67:105-119.

Phototherapy

- Used to treat moderate-to-severe psoriasis
- Phototherapy causes death of T cells in the skin
  - Natural sunlight
  - Ultraviolet (UV) B light
  - UVB light + coal tar (Goeckerman treatment)
    - Best therapeutic index for moderate-to-severe disease

Patient is immersed in a bathtub filled with coal tar for 20-60 minutes then is washed then is taken for phototherapy

  - UVB light + anthralin + coal tar (Ingram regimen)
  - Usually 3 treatments/week for 2 to 3 months is needed
  - Accessibility to a light box facility and compliance necessary

Camisa C. *Cleve Clin J Med*. 2000;67:105-119.

UVA Light With Psoralen (PUVA)

- Psoralen is a drug that causes a toxic reaction to skin lymphocytes when it is activated by UVA light
- Psoralen can be given systemically or topically
- Effective treatment—longest remissions of any treatment available
- Adverse effects
  - Nausea, burning, pruritus , hepatotoxic
  - Risk of cancer with cumulative use—both squamous cell carcinoma and melanoma
    - >160 cumulative treatments

Psoralen is given as a tablet then the patient is taken for UVA after one hour of ingestion

Greaves MW, et al. *N Engl J Med.* 1995;332:581-588.

Methotrexate

- Folic acid metabolite
  - Blocks deoxyribonucleic acid synthesis, inhibits cell proliferation
- Dose Memorize the dose
  - Start at about 15 mg/week; maximum 30 mg/week
  - Can also be given intramuscularly
- Adverse effects
  - Headache, nausea, bone marrow suppression
  - Cumulative dose predictive of liver toxicity
    - Prospectively identify risk factors for liver disease
    - Guidelines recommend liver biopsy after 1.5 g
    - Teratogenic in men and women

Groves MW, et al. *N Engl J Med.* 1995;332:581-588.

Acitretin: Oral Retinoid

Trade name: tegison and neotegison

- Frequently used in combination with topical agents, systemic therapies, and UV light
- Less effective as monotherapy for plaque psoriasis
- Plaque psoriasis dose
  - Start at 10 to 25 mg/day
- Adverse effects (fewest dose-related adverse effects)
  - Peeling/dry skin, alopecia, muscle pain
  - Lipid abnormalities -Hepatotoxicity
- Teratogenic: avoid pregnancy for 1-2 years after discontinuation

For this reason, acitretin is better not to be given to females in child bearing age

Greeves MW, et al. *N Engl J Med.* 1995;332:581-588.

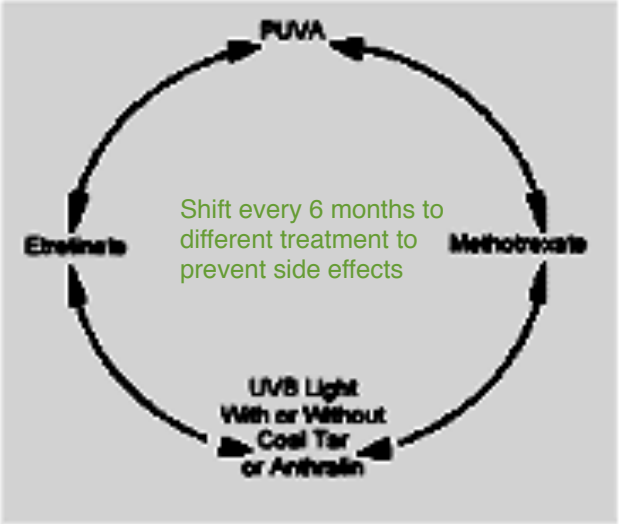
Cyclosporine

- Reserved for severe, recalcitrant disease
- Inhibits the proliferation of activated T cells
- Dose: 4 mg/kg/day, not to exceed 5 mg/kg/day
  - Tapering slowly may improve remission
- Use not recommended for >1 year
  - Renal toxicity so kept for a young fit patient with severe psoriasis
- Patients relapse 2 to 4 months after discontinuing
- Adverse effects
  - Immunosuppression: infections, possible malignancy
  - Hirsutism, gingival hyperplasia, muscle pain, infection
  - Serious: hypertension, renal failure

Lebwohl M, et al. *J Am Acad Dermatol*. 1998;39:464-475.

Rotational/Sequential Treatment

- Therapeutic strategy for moderate-to-severe disease
  - Switch to alternative therapy before early evidence of toxicity



Greaves MW, et al. *N Engl J Med*. 1995;332:581-588.

New Treatments

Mechanism of action of biological treatment:
-Block cytokines.
-Inhibit T cells.
-Promote immunity

Advantages:
-Self injection every two weeks

Disadvantages:
-Expensive (one injection costs about 3000 riyals)
-Adverse effects.

Biologic Therapies Currently Approved for the Treatment of Psoriasis

Alefacept

Efalizumab

Etanercept

-These drugs are category C for pregnancy.
-Young female patient getting married in 6-12 months —> start her on biologic treatment.
-Once she starts considering pregnancy —> stop medication!

-Young fit patients with severe psoriasis are a good candidate for biological treatment.

*You don't need to know the dose of biologic treatment.
*You should know the target of each drug and side effects.

Systemic Treatment of Psoriasis

Currently licensed biologics for psoriasis

Type Drug	Route	Dosing	Freq PlasmaHalf-life

Adalimumab

TNF-α inhibitor
Subcutaneous
80mg 1st week, then40mg 2nd wk ,ThenEvery 2 wk
2 weeks

Etanercept

Subcutaneous
50mg (0.8mg/kg, max 50mg)
First 12 week: twice a wk   Then once aweek
70 hours

Infliximab

IL-12/23Antibody
Intravenous
5mg/kg
0,2,6 wk, then every 8 wk8-9.
5days

Ustekinumab

Subcutaneous
45mg for <100 kg90mg for >100kg0,4 wk, thenevery 12 wk
15-32days

Absolute Contraindications:

-Biologic treatment is not usually given to patients with coexisting medical problems.
-It is important to do blood tests and BCG prior to starting medication because they suppress immunity.
-Look out for reactivation of latent TB.

- Pregnancy/breastfeeding
- Active (chronic) infections (including tuberculosis and active chronic hepatitis B)
- Congestive heart failure (NYHA grade III or IV)

Relative contraindications

- History of recurrent infections
- PUVA >200 treatments (especially if followed by cyclosporin use)
- HIV or AIDS
- Hepatitis C
- Congestive heart failure (NYHA grade I or II)
- SLE, Demyelinating disease
- Malignancies or lymphoproliferative disorders
- Live vaccines

Treatment Modalities:

- Combination therapy
  - –contraindicated in additive increase risk/ S/E, e.g.
  - Phototherapy +CsA increase risk of cutaneous cancer
  - Acitretin +MTX increase risk of hepatotoxicity

Treatment Modalities:

- Rotational therapy

  - use of therapies for a specified period (e.g.1-2 year) then rotate to an alternative therapy to minimize long-term toxicity in any given therapy and decrease therapy resistance/ tachyphylaxis

Treatment Modalities:

- Sequential therapy-

- Induction phase: use stronger potentially more toxic agents to clear psoriasis initially
- e.g. Ultrapotent topical steroid or CsA
- Transitional phase
- e.g. OM steroid+ Nocte calcipotriol or acitretin
- Maintenance phase: use of a "weaker", less toxic agent for maintenance
- e.g. weekday calcipotriol +weekend steroid or acitretin +/-UVB/ PUVA

PITYRIASIS ROSEA

النخالية الوردية

Pityriasis Rosea

Acute, self-limiting, mild inflammatory exanthem of unknown origin.

Etiology:

- Unknown
- A virus infection is most frequently suggested?
  - The formation of herald patch
  - The self-limited course
  - The seasonal preponderance & rare recurrence
- The Pit. rosea-like may occur as a reaction to:
  - Captopril
  - Gold
  - Clonidine
  - Barbiturates
  - Arsenicals
  - Bismuth
  - Methoxypromazine

Epidemiology:

In children and young adult
-Increased incidence in spring and autum
-PR has been estimated to account for 2% of dermatologic outpatient visits
-PR is more common in women than in men
-Common in young females.
-Although it is a self-limiting disease, most patients present early.

Pathophysiology:

-PR considered to be a viral exanthem
-Immunologic data suggest a viral etiology
-Families and close contacts
-A single outbreak tends to elicit lifelong immunity
-Human herpesvirus (HHV)–7and HHV-6
-PR-like drug eruptions may be difficult to distinguish from non–drug-induced cases
-Captopril, metronidazole, isotretinoin, penicillamine, bismuth, gold, barbiturates, and omeprazole

- Begins with a solitary macule that heralds the eruption(herald spot/patch)
- Usually a salmon-colored macule In light skinned people.
- 0ver a few days it become a patch with a collarette of fine scale just inside the well-demarcated border
- Within the next 1-2 weeks, a generalized exanthem usually appears
- Bilateral and symmetric macules with a collarette scale oriented with their long axes along cleavage lines
- Tends to resolve over the next 6 weeks
- Pruritus is common, usually of mild-to-moderate severity
- Over trunk and proximal limbs

important sign for Dx

-Herald (mother) patch precedes exanthem by ~10 days.
-The patient tells you “I got this patch initially then it spread all over my body”.

Pityriasis Rosea

Clinical features

- Salmon-colored papular & macular lesions
- oval patches or circinate covered with finely crinkled, dry epidermis ➡ often desquamates
- Usually begins with a single - herald or mother patch
- The new lesions spread rapidly
- Arranged - runs parallel to the lines of cleavage
- Generalized, affecting the trunk & sparing the sun-exposed surfaces May still affect face, lips, eyelids.
- Moderate pruritus may be present
- Variations in the mode of onset, course and clinical manifestations are common (papular Pit. Rosea)

-Anteriorly: the lesion runs from shoulder area towards the chest (midline).
-Posteriorly: Runs from the upper back towards periphery.

Atypial form of PR :

- Occurs in 20% of patients
- Inverse PR
- Unilateral variant
- Papular PR
- Erythema multiforme–like
- Purpuric PR

If it appears in palms and soles —> DDx: secondary syphilis.

Differential Diagnosis :

Viral exantheme
Drug Eruption
Lichen Planus
Psoriasis, Guttate
Syphilis
Tine Corporis →
Seborrheic Dermatitis
Nummular Dermatitis
Pityriasis Lichenoides

Scenario:
Patient presents in early stage (only herald patch) is misdiagnosed to have a fungal infection. The physician prescribes an anti-fungal agent. After a few days the patient returns upset with full exanthem and is assuming that the prescribed medication worsened their condition.

Pityriasis Rosea

Treatment

- Prevent irritable hot baths & soaps and woolen clothes

Ask the patient to be gentle with their skin and not to use a loofah.

- Symptomatic
- Emollients as first line

If severe:

- Corticocosteroid (Topical, Oral, IM)
- UVB

Lichen planus (LP)

الحزاز الجلدي

Background:

-Lichen planus (LP) is a pruritic, papular eruption characterized by its violaceous color; polygonal shape; and, sometimes, fine scale
-It is most commonly found on the flexor surfaces of the upper extremities, on the genitalia, and on the mucous membranes.

-Whenever you read “violaceous color”, it is most probably LP.

Lichen Planus & Lichenoid Eruption

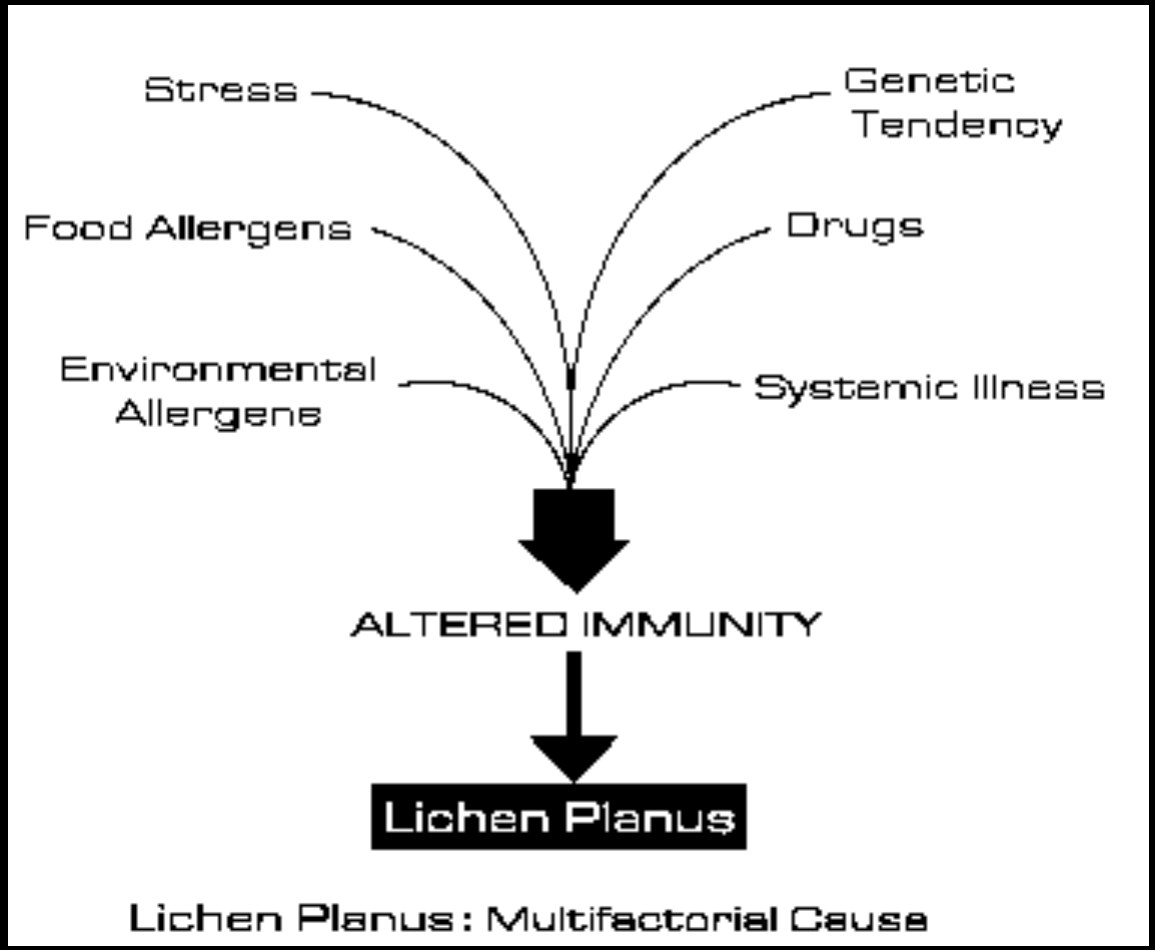
- Inflammatory pruritic disease of the skin and mucous membranes
- Rare in children
- Etiology:
  - The cause of LP remains unknown
  - ?? an alteration of epidermal cell antigens induce a cell mediated immune response
  - ?? may be familial (early age & chronic)
  - Drugs ➡ may induce lichenoid reactions (e.g. antimalarials, thiazide derivatives, propranolol..)
  - Viral infection? Symmetrically associated with viral hepatitis
  - A psychogenic origin? Severe psychic trauma
  - An auto-immune phenomenon?

Epidemiology :

-Approximately 1% of all new patients seen at health care clinics
-Rare in children
-F=M
-No racial predispositions have been noted
-LP can occur at any age but two thirds of patients are aged 30-60 years

Pathophysiology :

The cause of LP is unknown
-LP may be a cell-mediated immune response of unknown origin
-LP may be found with other diseases of altered immunity like ulcerative colitis, alopecia areata, vitiligo, dermatomyositis
-An association is noted between LP and hepatitis C virus infection ,chronic active hepatitis, and primary biliary cirrhosis
-Familial cases
-Drug may induce lichenoid reaction like thiazide,antimalarials,propranolol



Lichen Planus: Multifactorial Cause

Clinical Features :

Most cases are insidious
-The initial lesion is usually located on the flexor surface of the limbs
-After a week or more, a generalized eruption develops with maximal spreading within 2-16 weeks-
-Pruritus is common but varies in severity
-Deep pigmentations may persist for long time.
-Oral lesions may be asymptomatic or have a burning sensation
-In more than 50% of patients with cutaneous disease, the lesions resolve within 6 months, and 85% of cases subside within 18 months

Most important feautres of LP: prutitis + pigmentation

5 P's to describe LP: Plentiful, Purple, Pruritic, Polygonal, Papules.

- **The papules are violaceous, shiny, and polygonal; varying in size from 1 mm to greater than 1 cm in diameter**
- **They can be discrete or arranged in groups of lines or Circles**
- **Characteristic fine, white lines, called Wickham stria, are often found on the papules**
- **Oral lesions are classified as reticular, plaquelike, atrophic, papular, erosive, and bullous**
- **Ulcerated oral lesions may have a higher incidence of malignant transformationO(the development of squamous cell carcinoma)**
- **Genital involvement is common in men with cutaneous disease**
- **Vulvar involvement can range from reticulate papules to severe erosions**

- **Wickham's striae:** Adherent scale which forms a network on the surface of the papule

  Grayish puncta or streaks which form a network on the surface of the papules (focal increase in thickness of granular layer & infiltrate)

- **Koebner's isomorphic phenomenon:**

  As in psoriasis by physical trauma (scratching) skin lesions are produced in the scratch marks identical to those already on the pat. skin.

- **Pruritus:** Main symptom

  - It is intolerable in acute cases
  - Most pat. react by rubbing rather than scratching

Clinical types: Identifying the type of LP requires experience

- ✓ **Hypertrophic LP**

  -These extremely pruritic lesions are most often found on the extensor surfaces of the lower extremities, especially around the ankles

- ✓ **Atrophic LP**

  -is characterized by a few lesions, which are often the resolution of annular or hypertrophic lesions

- ✓ **Erosive LP** Pre-cancerous

- ✓ **Folliculalar LP**

  -keratotic papules that may coalesce into plaques
  -A scarring alopecia may result

✓Annular LP

Annular lesions with an atrophic center can be found on the buccal mucosa and the male genitalia

✓Vesicular and bullous LP

-develop on the lower limbs or in the mouth from preexisting LP lesions

✓Actinic LP

-Africa, the Middle East, and India
-mildly pruritic eruption
-characterized by nummular patches with a hypopigmented zone surrounding a hyperpigmented center

✓LP pigmentosus AKA tropical LP: seen in people from southern part of Saudi

-common in persons with darker-pigmented skin (Hyperpigmented macule)
-usually appears on face and neck

LP and Nails

In 10% of patients
nail plate thinning causes longitudinal grooving and ridging
subungual hyperkeratosis, onycholysis
Rarely, the matrix can be permanently destroyed with prominent pterygium formation
twenty-nail dystrophy

Differential diagnosis

- Papular syphilis
- Guttate psoriasis
- Lichenoid forms of (eczema, scabies)
- Pityriasis rosea
- Leukoplakia (mucous m.) Pre-cancerous

DDx of oral LP:
-Candida —> can be sloughed off.
-Leukoplakia —> Bleeds if you try to slough it

Management :

self-limited disease that usually resolves within 8-12 months but leaves hyperpigmentation.

-Anti-histamine

-topical steroids, particularly class I or II ointments

-systemic steroids for symptom control and possibly more rapid resolution

-Oral acitretin

-Photo-therapy

-Others


Thank you

Summery

Psoriasis

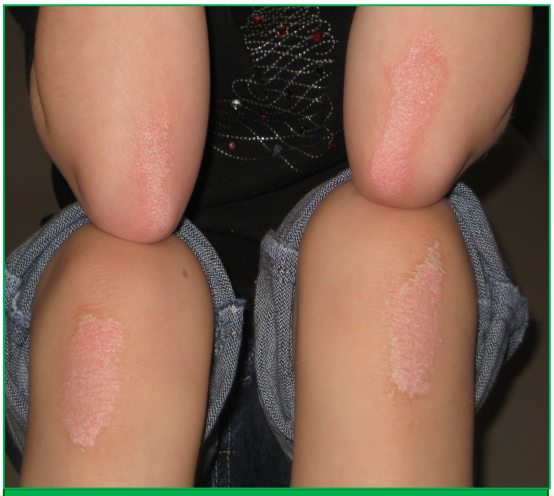
- May occur at any age from infancy to the 10th decade.
- Most patients have a mild disease with a remitting and relapsing course.
- T-lymphocyte mediated mechanism.
- **Triggering factors:** infection, drugs (Beta blockers), trauma (Koebner's phenomenon), pregnancy, stress, alcohol, sunlight.
- **Clinical features:** Well defined plaque with an erythematous base + silvery scaling + mostly affecting limbs, scalp and sacral area + Auspitz sign (pinpoint bleeding upon removal of scale)
- **Clinical types:** 1) Non-pustular 2)Pustular 3)Erythrodermic 4) Psoriatic arthritis.
- Chronic plaque psoriasis (non-pustular) is the most common type.
- **Nail changes:** Nail pitting, oil spots, onychodystrophy, loss of nail plate.
- Scalp psoriasis produces a non-scarring alopecia and exceeds hairline.
- Palmoplanter psoriasis is associated with fissuring.
- Guttate psoriasis mainly affects children and young adults often following a streptococcal throat infection.
- **Generalized pustular psoriasis:** erythematous edematous plaques studded with sterile pustules + weight loss + muscle weakness + hypocalcemia + leukocytosis + elevated ESR. Often precipitated by withdrawal of oral steroids.
- **Erythrodermic psoriasis:** Universal redness and scaling (>90% of BSA) + fever + leukocytosis + sepsis + transcutaneous fluid loss. Triggered by systemic infection, steroid withdrawal, methotrexate withdrawal, phototoxicity or irritant dermatitis.
- **Histopathological features:** Parakeratosis + acanthosis + Munro abscess.
- **Treatment:** Topical agents (mild to moderate) > phototherapy (moderate to severe) > systemic therapy
- **Adverse effects of systemic medications:**
  - Methotrexate: liver toxicity
  - Acitretin: teratogenicity & liver toxicity
  - Cyclosporine: Renal toxicity

Pityriasis Rosea

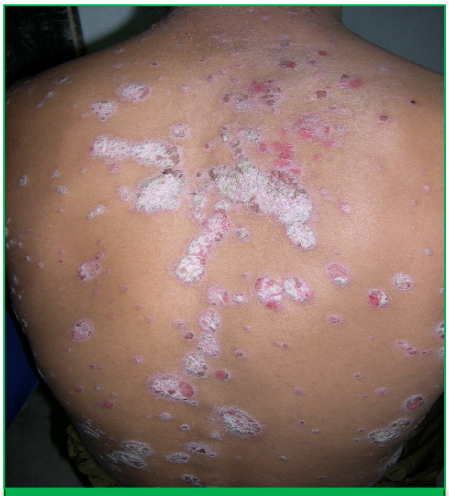
- Acute, self-limiting, mild inflammatory exanthema of unknown origin. May be precipitated by a viral infection or drug reaction.
- **Clinical features:** Begins with a herald patch followed by generalized exanthema after 1-2 weeks. Oval well demarcated patch with fine scale running along cleavage lines.

Lichen Palnus

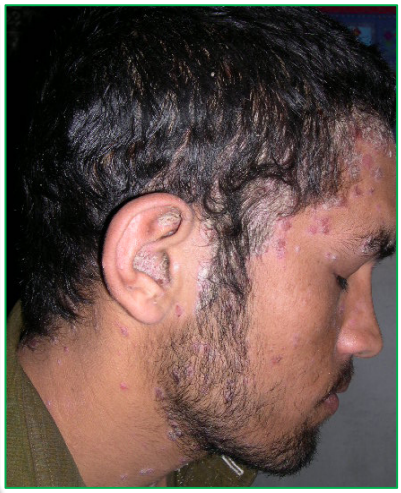
- Pruritic papular eruption charecterized by its violaceous color, polygonal scale, sometimes fine scale. Involves skin, nails and mucous membranes.
- Rare in children. Two thirds of patients are aged 30-60 years.
- Pruritus and deep pigmentations are the most important complaints.
- **Clinical features:** Violaceous, shiny, and polygonal papules of varying size. They can be discrete or arranged in groups of lines or circles + Characteristic fine white lines (Wickham stria).
- **Nail changes:** longitudinal grooving and ridging + subungal hyperkeratosis + onucholysis + pterygium.
- **Management:** self-limited resolves in 8-12 months but leave hyperpigmentation.

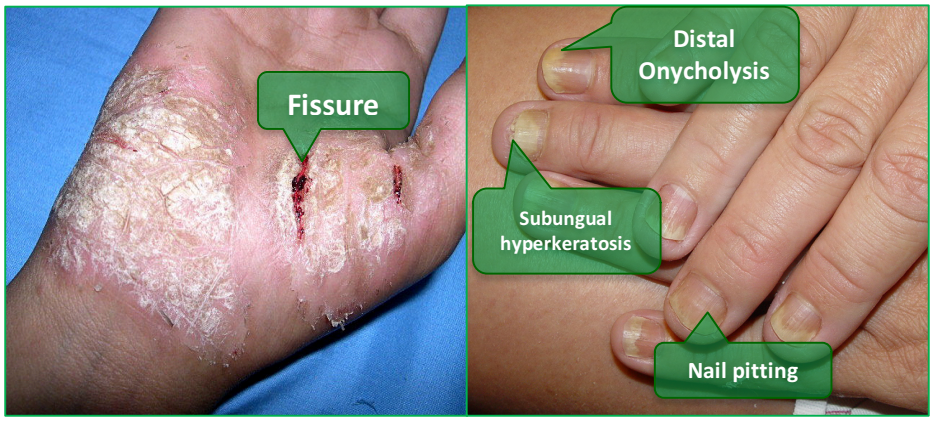


Bilateral, symmetrical, well-defined, regular, erythematous, scaly, plaques on elbows and knees.

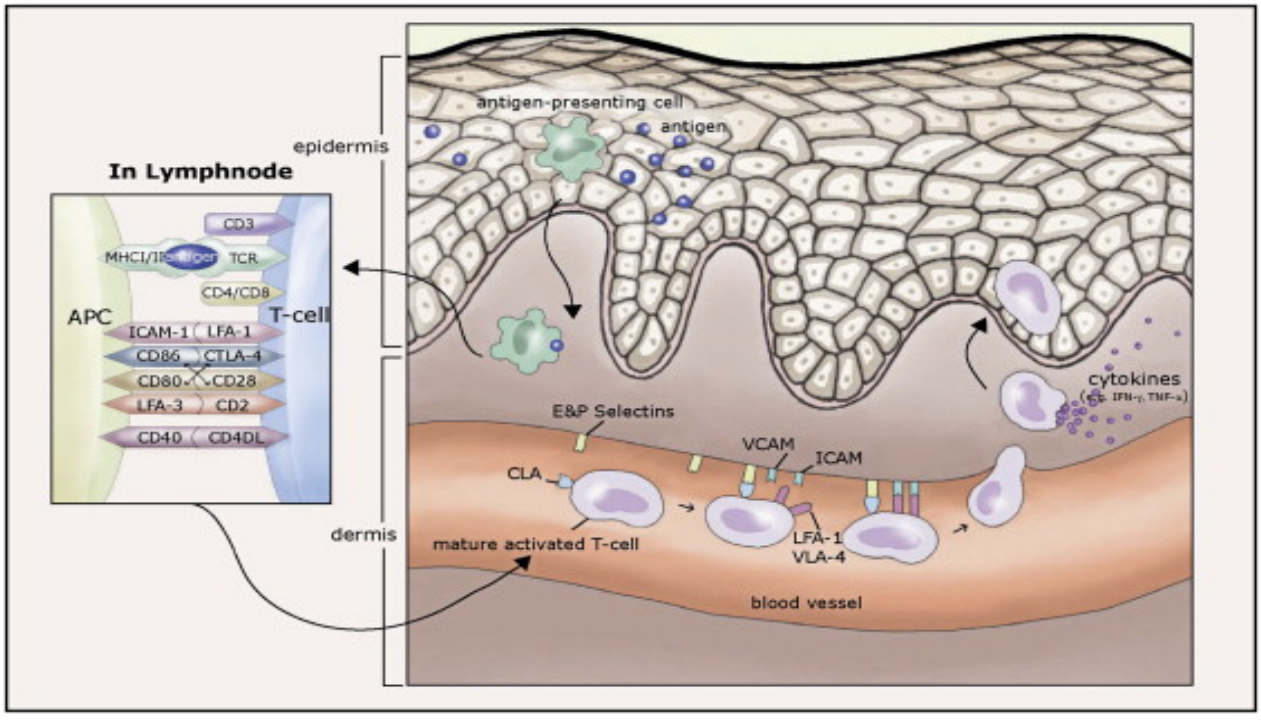


Well-defined, generalized, dull red, scaly, papules and plaques on the back.

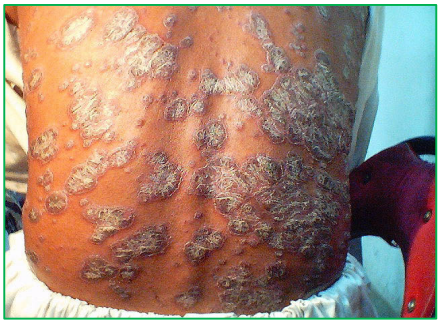
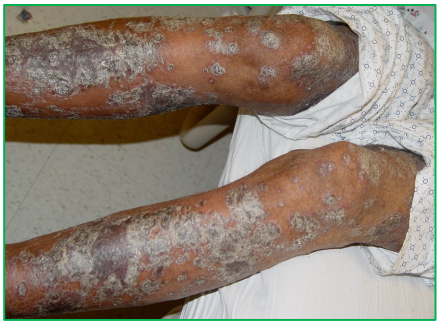
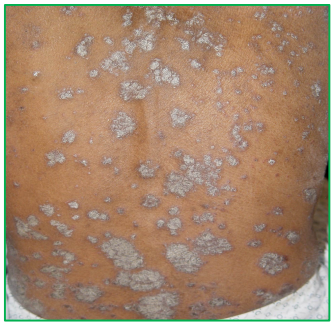




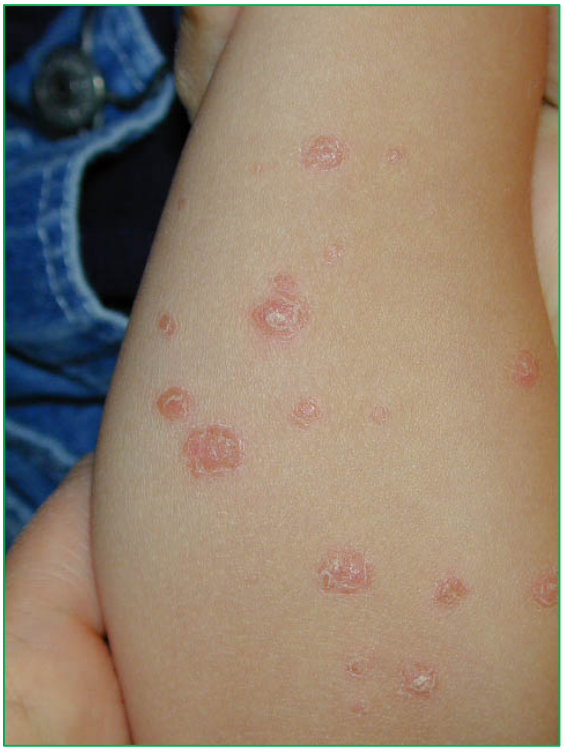
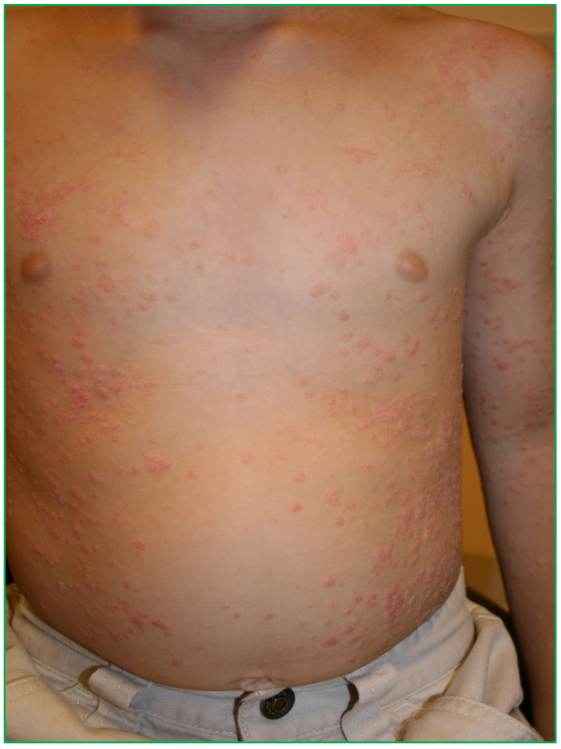
Fissures are an additional feature of the Psoriasis in the Palms & Soles. It develops because the palms and soles already have a thick skin, when Psoriasis occurs in it (in a thick skin) the scales accumulate; and with recurrent mechanical movements of the hands or soles the fissures develop!



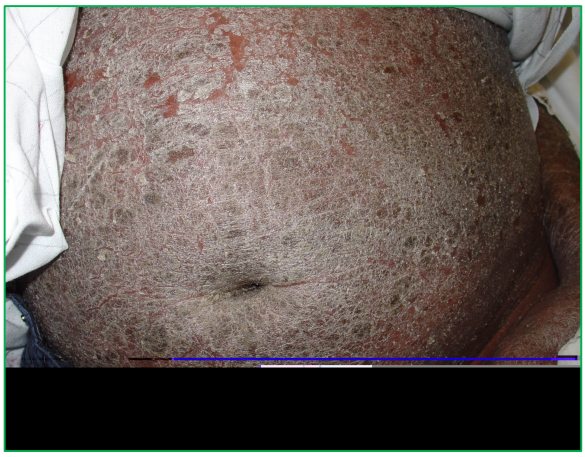
Plaque psoriasis (Psoriasis Vulgaris):

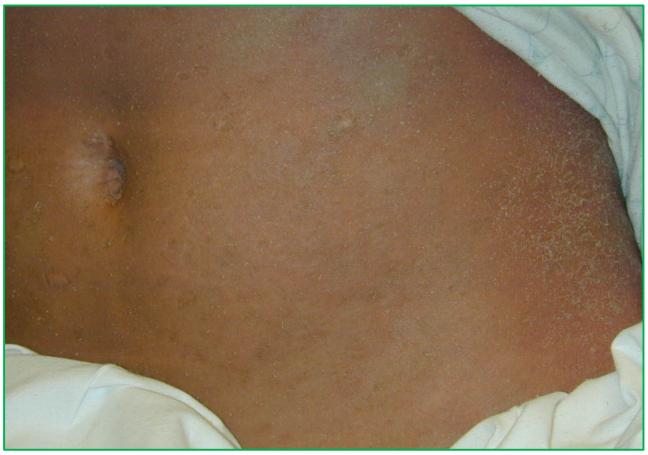




Guttate Psoriasis:

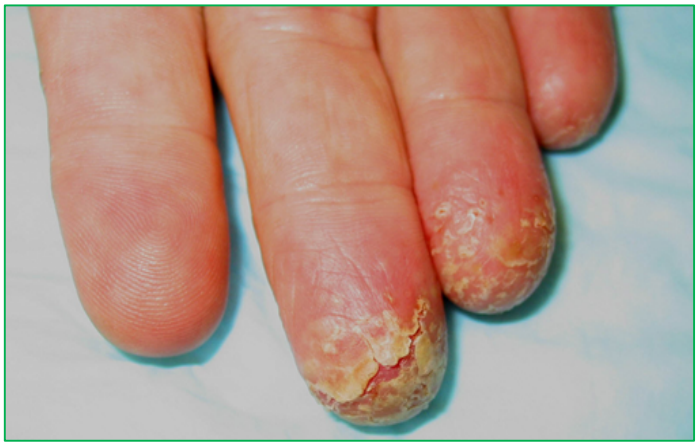



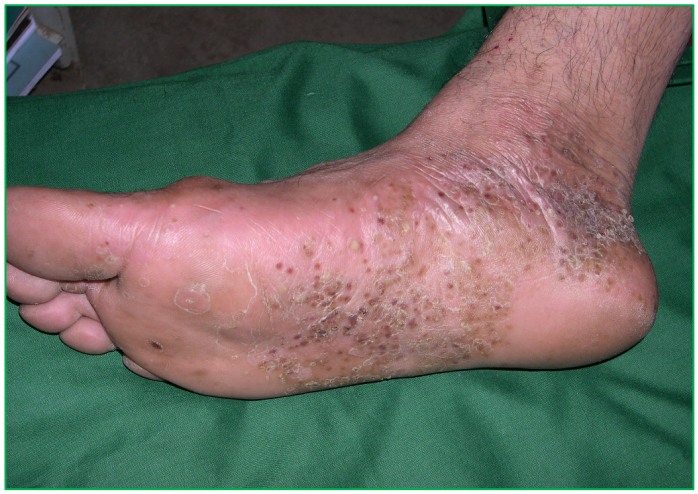
Erythrodermic Psoriasis:

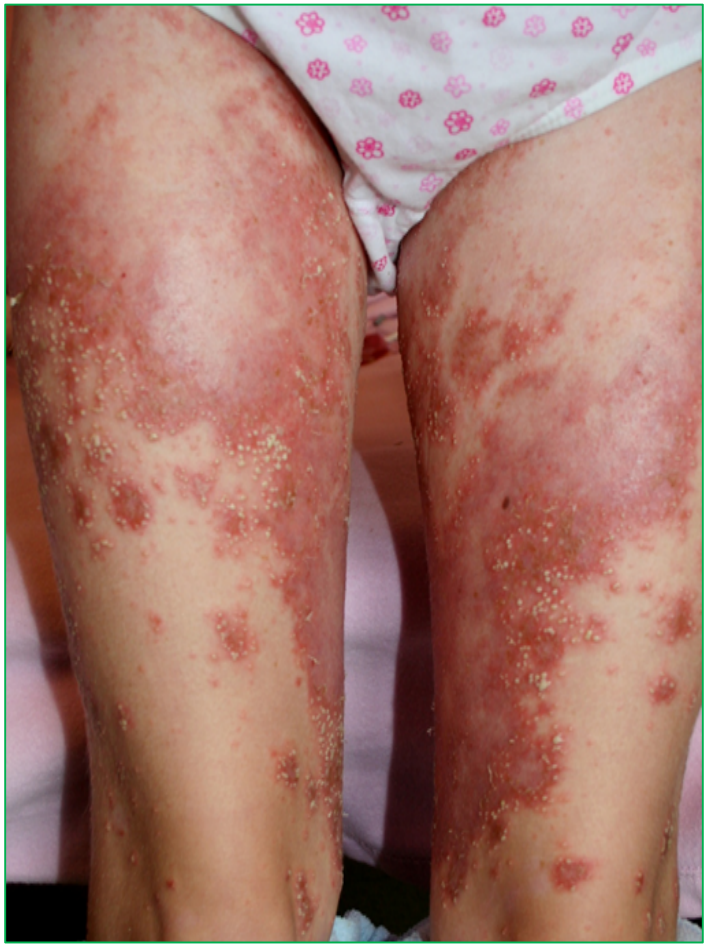




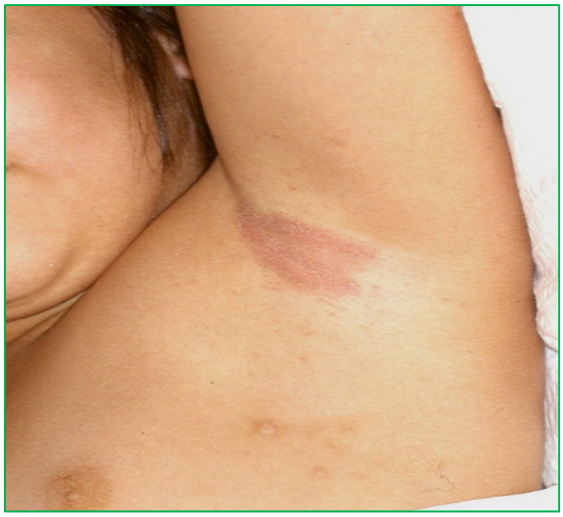
Pustular Psoriasis:

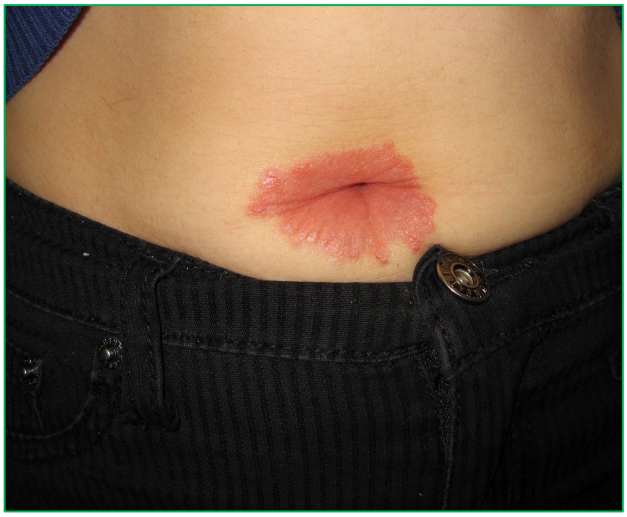




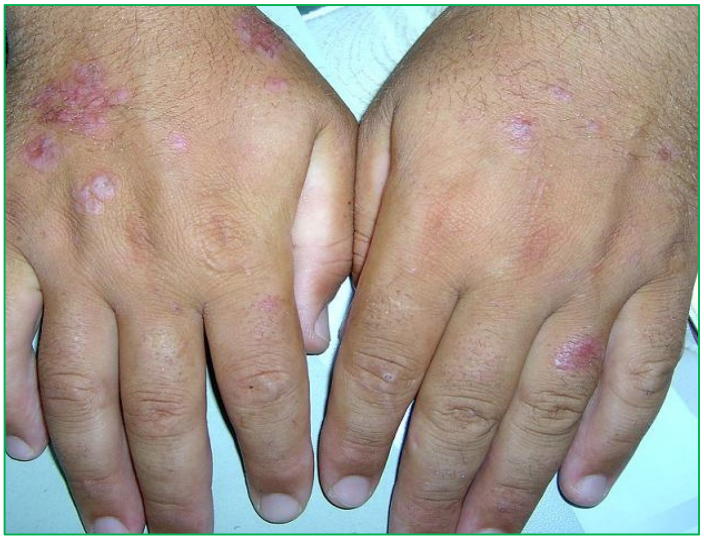


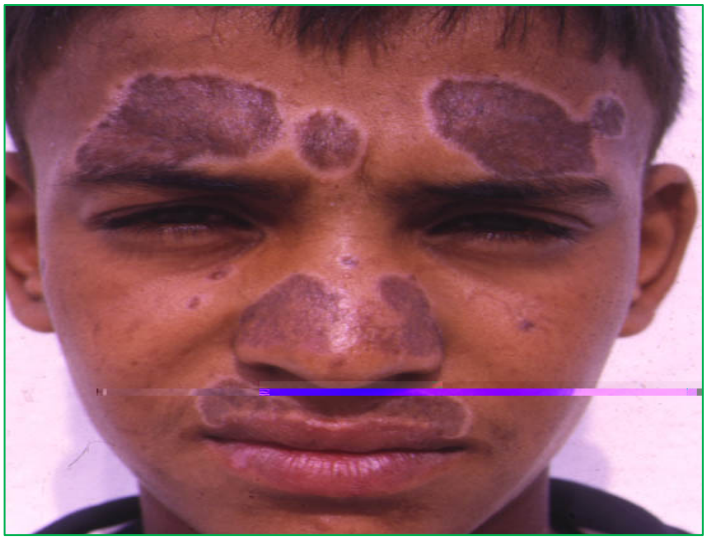
Psoriasis inversus (*Sebopsoriasis*) or flexural psoriasis:

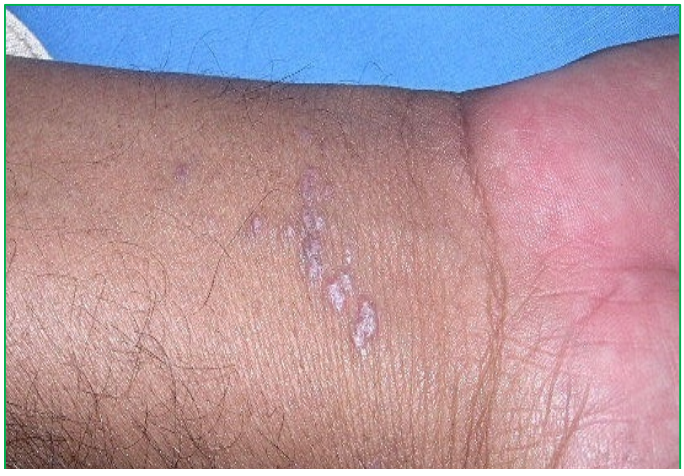


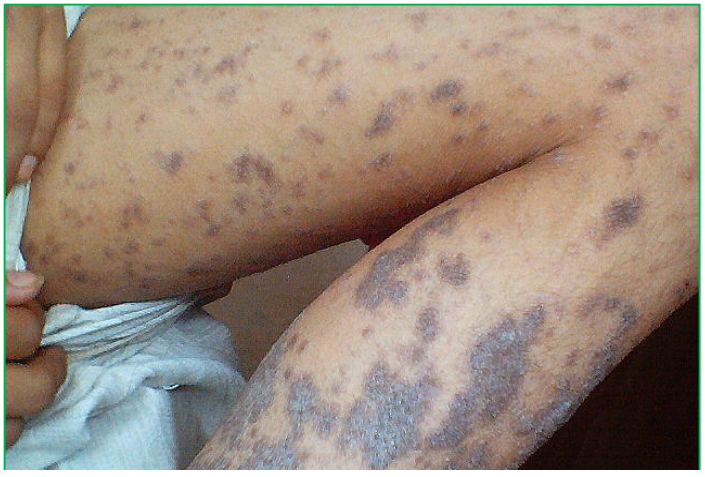


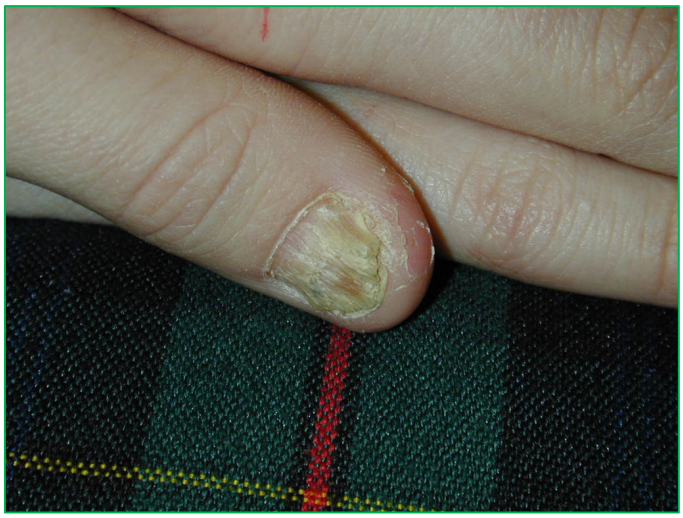
Lichen Planus

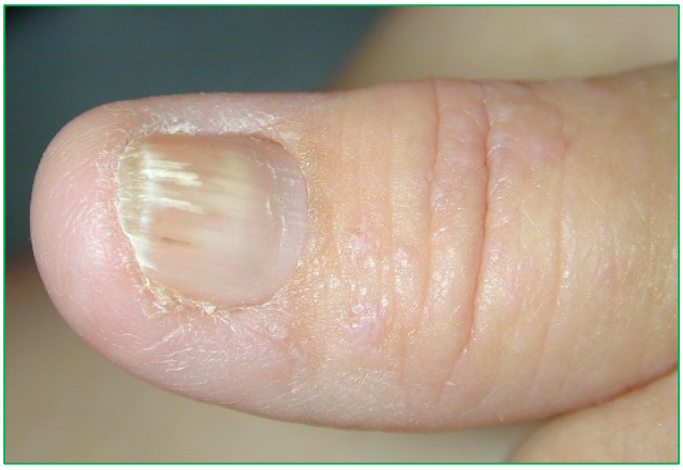


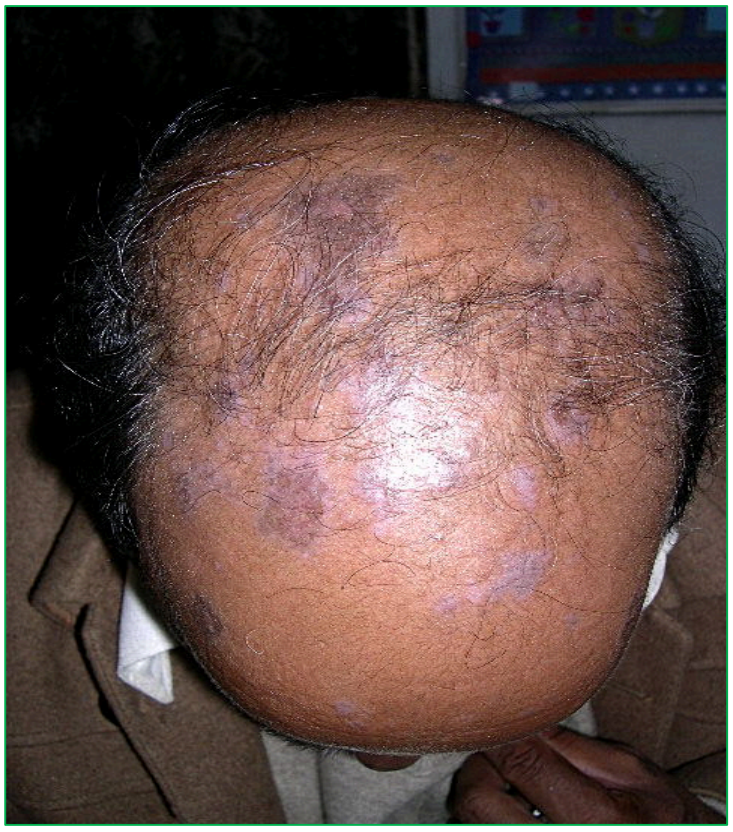


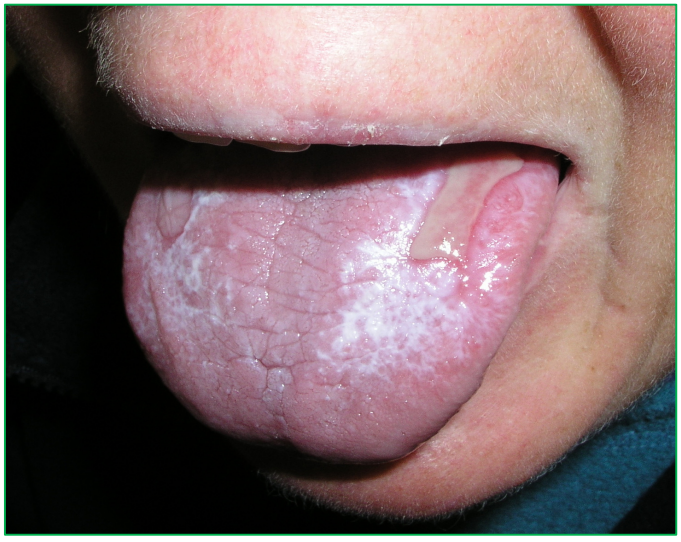




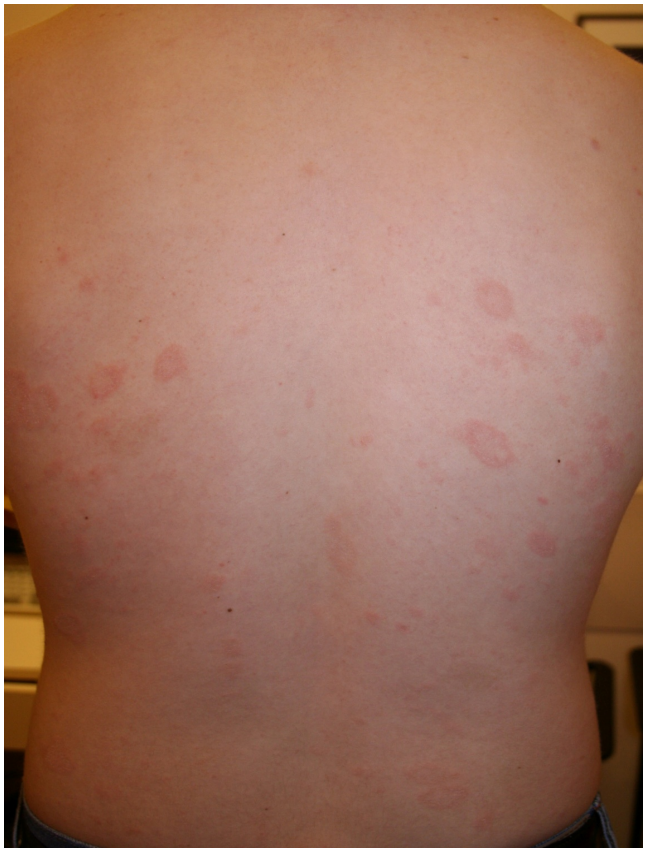


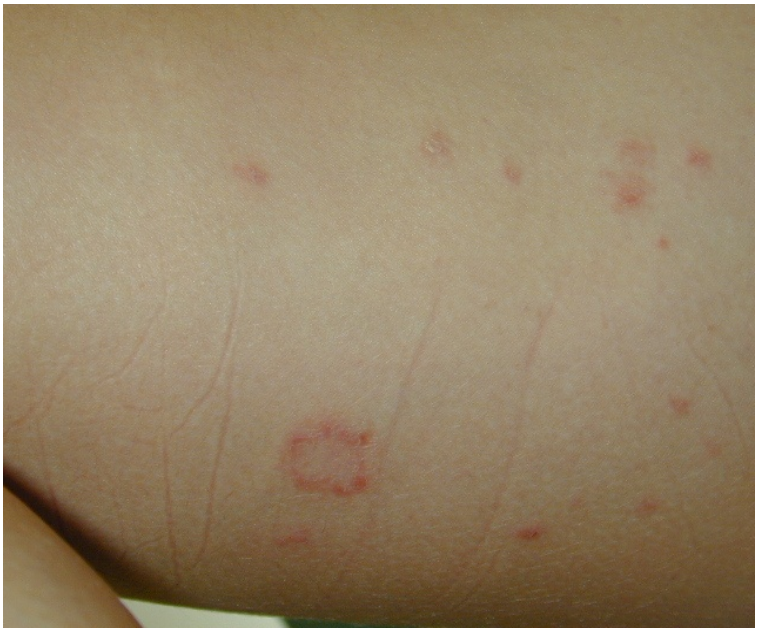


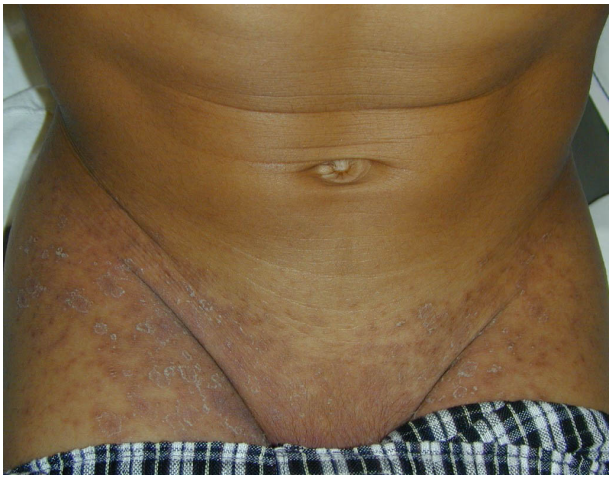


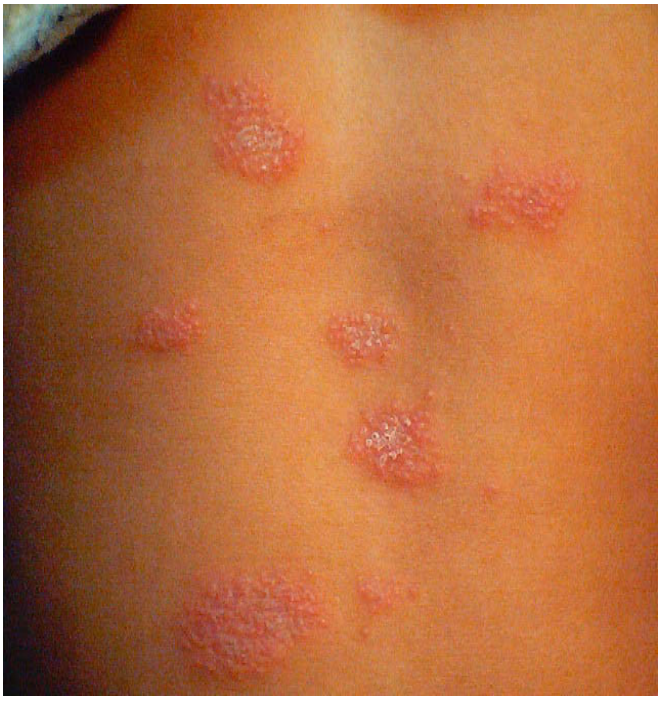


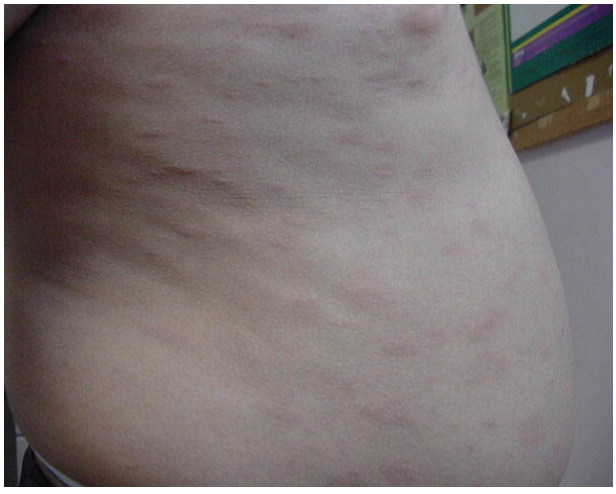
Pityriasis Rosea











Pictures from textbook (Fitzpatrick's Color Atlas and Synopsis of Clinical Dermatology, 7th Edition):

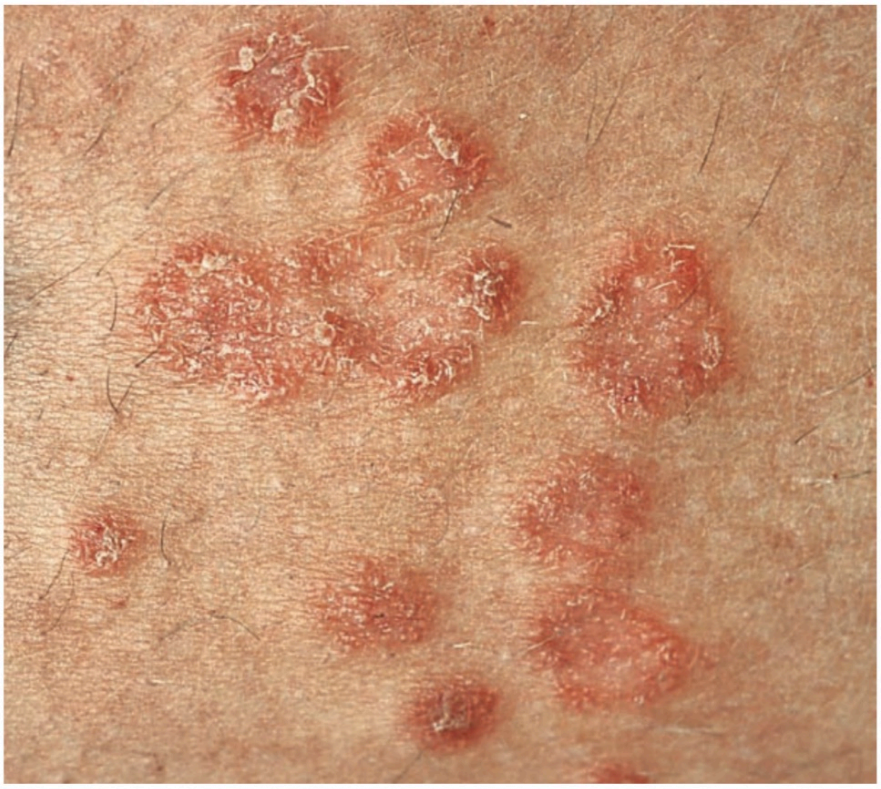


Figure 3-1. Psoriasis vulgaris Primary lesions are well-defined, reddish or salmon-pink papules, droplike, with a loosely adherent silvery-white lamellar scale.

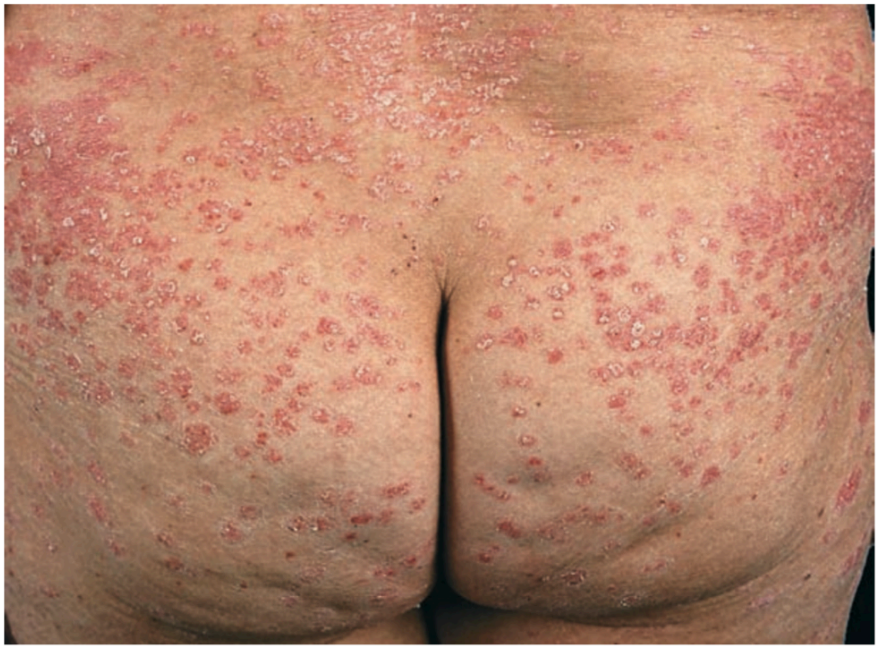


Figure 3-2. Psoriasis vulgaris: buttocks (guttate type) Small, discrete, erythematous, scaling, papules that tend to coalesce, appearing after a group A streptococcal pharyngitis. There was a family history of psoriasis.

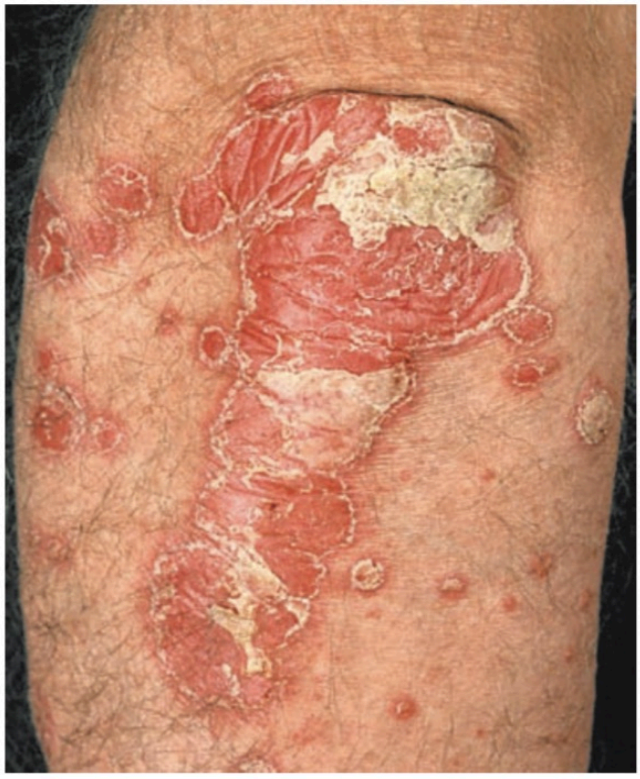


Figure 3-3. Psoriasis vulgaris: elbow Chronic stable plaque psoriasis on the elbow. In this location, scales can either accumulate to oyster shell-like hyperkeratosis, or are shed in large sheets revealing a beefy-red base. This plaque has arisen from the coalescence of smaller, papular lesions that can still be seen on lower arm.

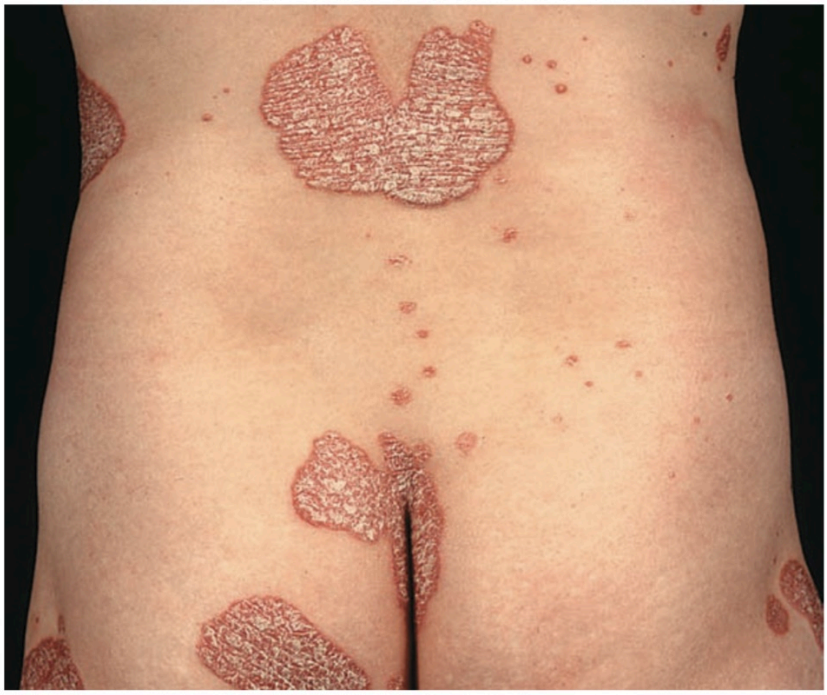


Figure 3-4. Psoriasis vulgaris: chronic stable type Multiple large scaling plaques on the trunk, buttock, and legs. Lesions are round or polycyclic and confluent forming geographic patterns. Although this is the classical manifestation of chronic stable plaque psoriasis, the eruption is still ongoing, as evidenced by the small guttate lesions in the lumbar and lower back area. This patient was cleared by acitretin/PUVA combination treatment within 4 weeks.

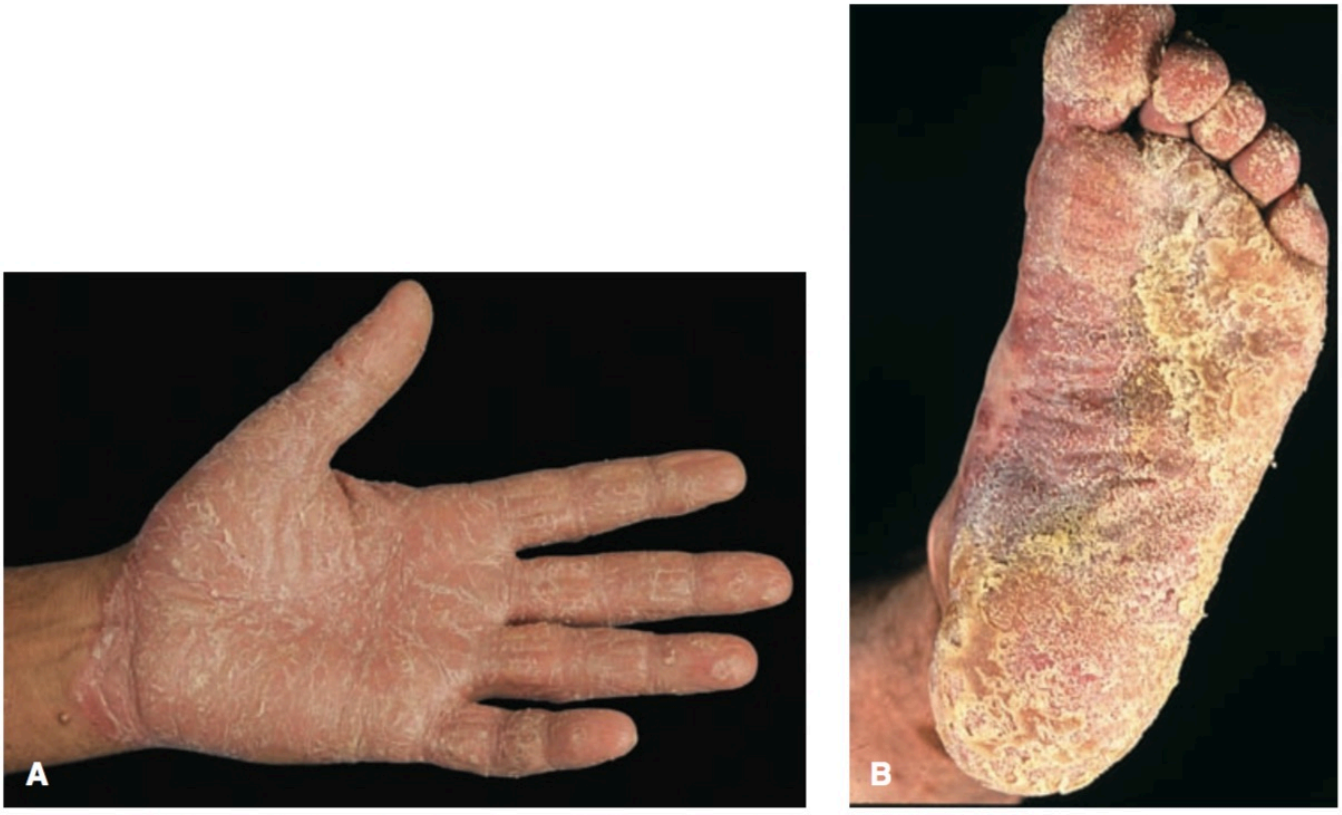


Figure 3-7. (A). Psoriasis, palmar involvement The entire palm is involved by large adherent scales with fissures. The base is erythematous and there is a sharp margin on the wrist. **(B) Psoriasis vulgaris: soles** Erythematous plaques with thick, yellowish, lamellar scale and desquamation on sites of pressure arising on the plantar feet. Note sharp demarcation of the inflammatory lesion on the arch of the foot. Similar lesions were present on the palms.

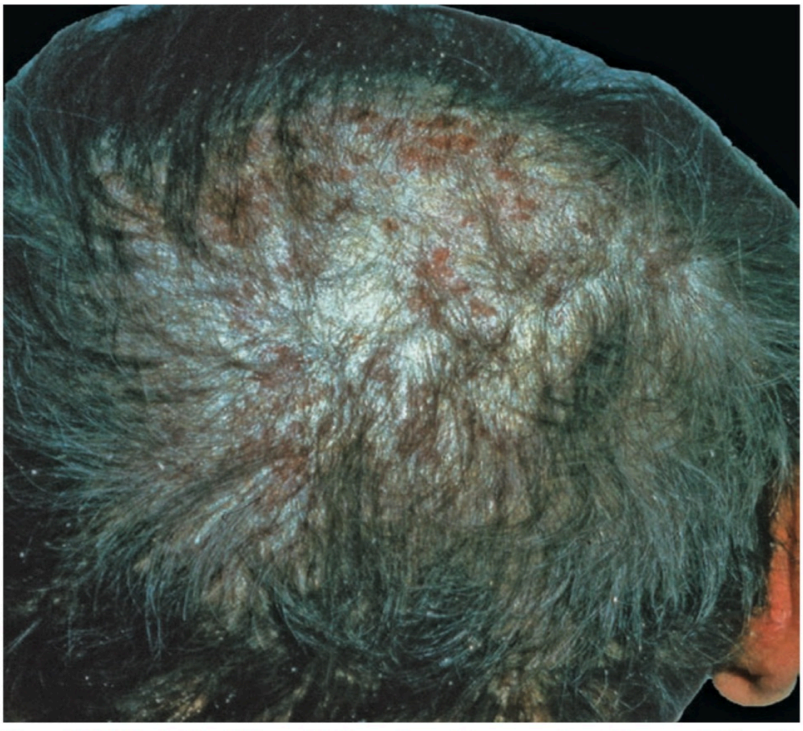


Figure 3-8. Psoriasis of the scalp There is massive compaction of horny material on the entire scalp. In some areas, the thick asbestos-like scales have been shed revealing a red infiltrated base. Alopecia is not due to psoriasis but is androgenetic alopecia.

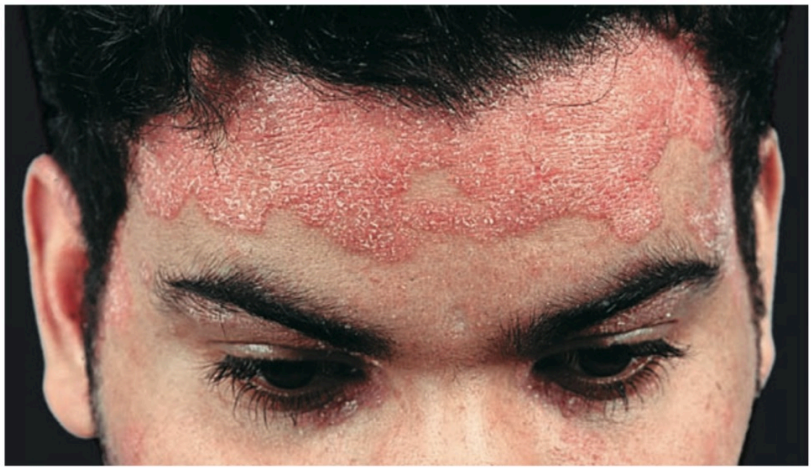


Figure 3-9. Psoriasis, facial involvement Classic psoriatic plaque on the forehead of a 21-year-old male who also had massive scalp involvement.

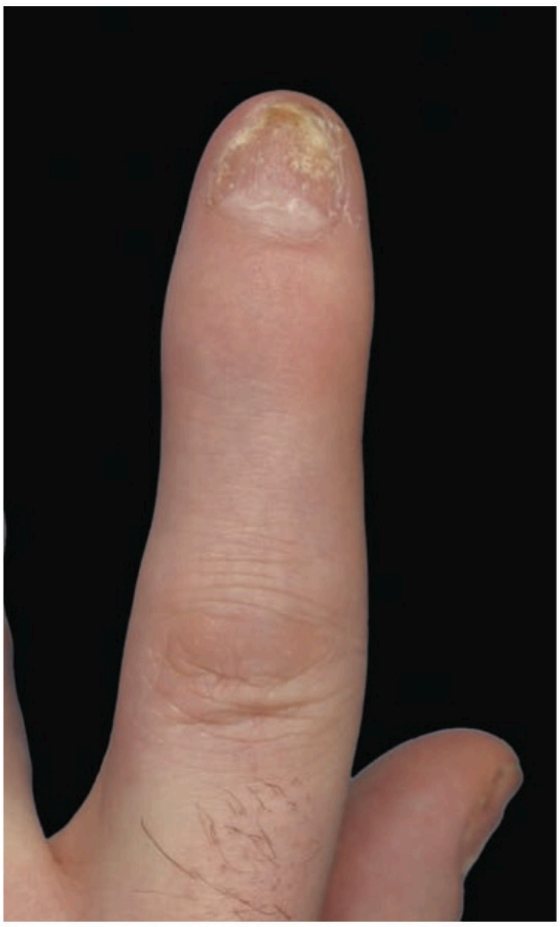


Figure 3-15. Psoriatic arthritis Dactylitis of index finger. Note sausage-like thickening over interphalangeal joints. There is psoriasis of the nail.

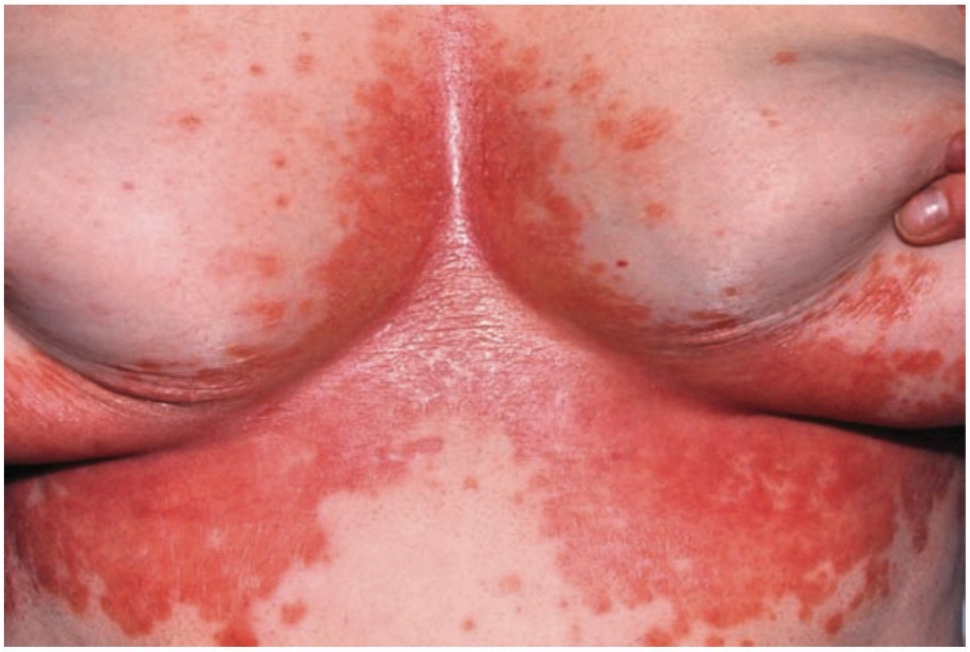
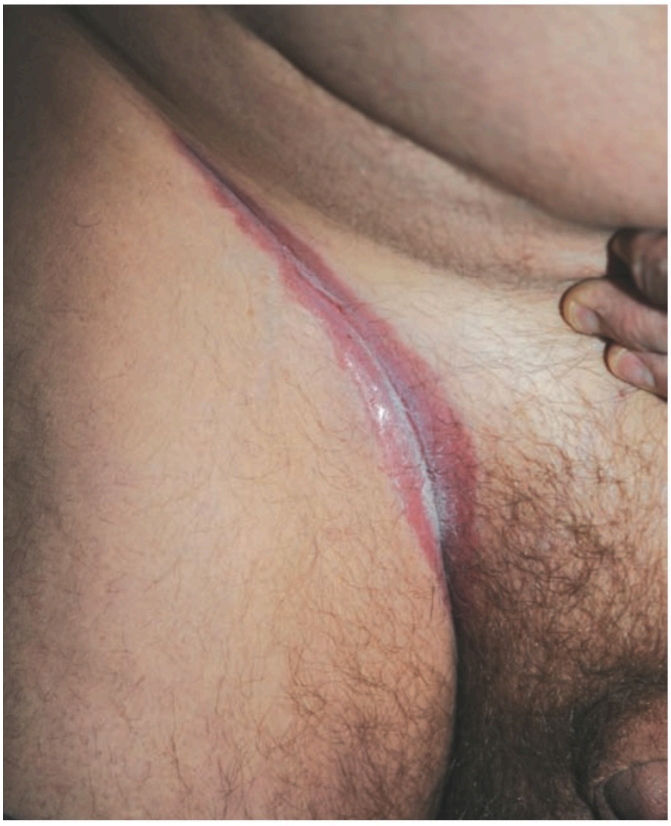


Figure 3-10. Psoriasis vulgaris: inverse pattern Because of the moist and warm environment in the submammary region, scales have been macerated and shed revealing a brightly erythematous and glistening base.



gure 34-11. Psoriasis vulgaris: intertriginous An erythematous plaque, esent for decades and unresponsive to topical antifungal agents, is seen in the ht inguinal area. Biopsy excluded extramammary Paget disease.

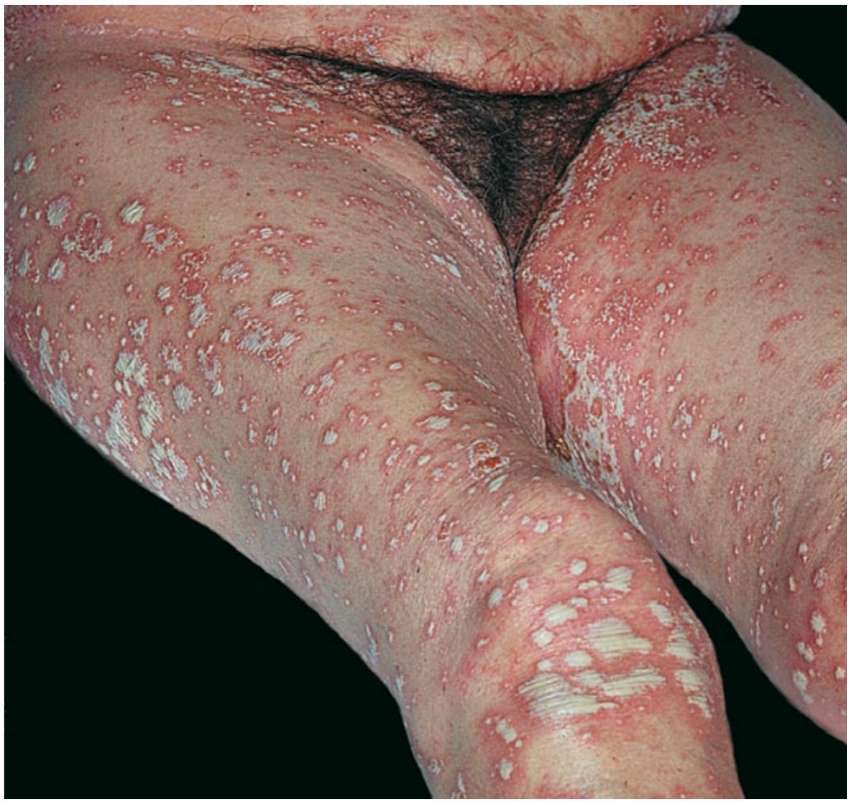


Figure 3-13. Generalized acute pustular psoriasis (von Zumbusch) This female patient was to and had fever and peripheral leukocytosis. The entire body was covered with showers of creamy-wh coalescing pustules on a fiery-red base. Since these pustules are very superficial, they can be litera wiped off, which results in red oozing erosions.

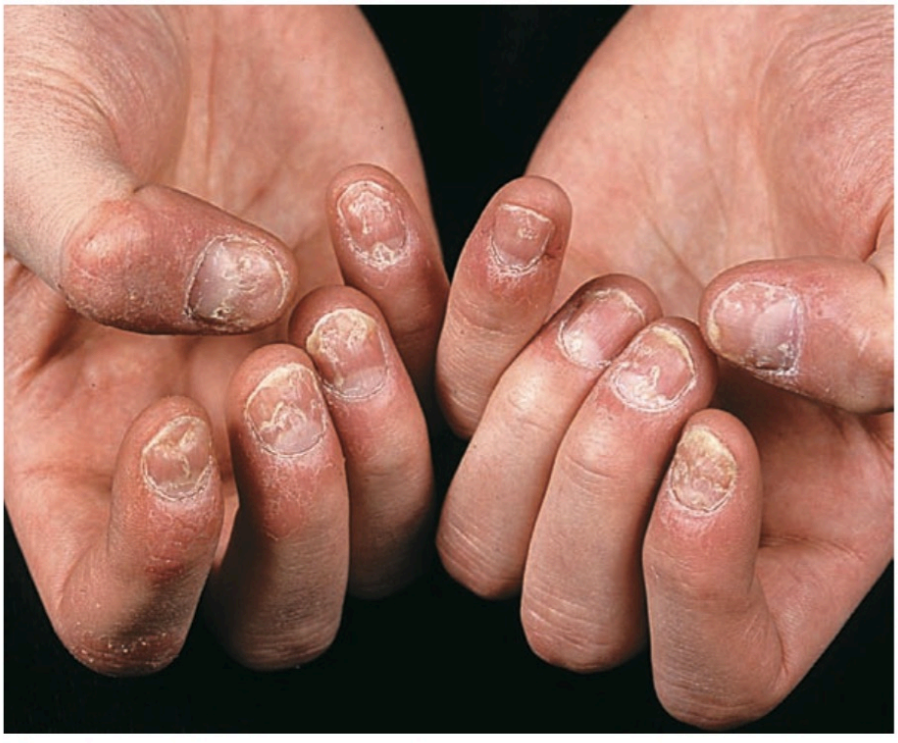


Figure 3-11. Psoriasis of the fingernails Pits have progressed to elkonyxis (holes in the nail plates), and there is transverse and longitudinal ridging. This patient also has paronychial psoriasis and psoriatic arthritis (for further images of nail involvement, see Section 34).

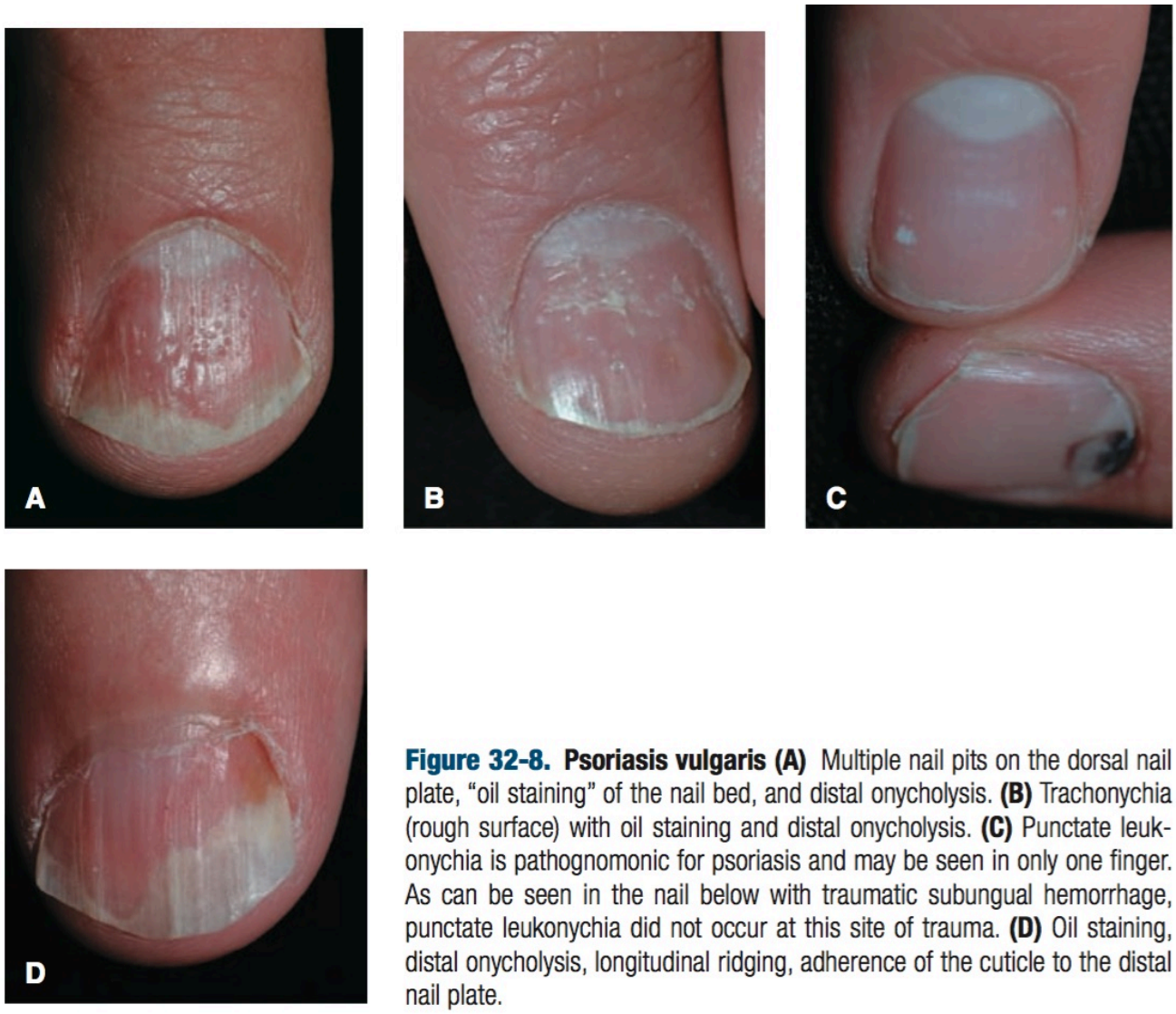


Figure 32-8. Psoriasis vulgaris (A) Multiple nail pits on the dorsal nail plate, "oil staining" of the nail bed, and distal onycholysis. **(B)** Trachonychia (rough surface) with oil staining and distal onycholysis. **(C)** Punctate leukonychia is pathognomonic for psoriasis and may be seen in only one finger. As can be seen in the nail below with traumatic subungual hemorrhage, punctate leukonychia did not occur at this site of trauma. **(D)** Oil staining, distal onycholysis, longitudinal ridging, adherence of the cuticle to the distal nail plate.

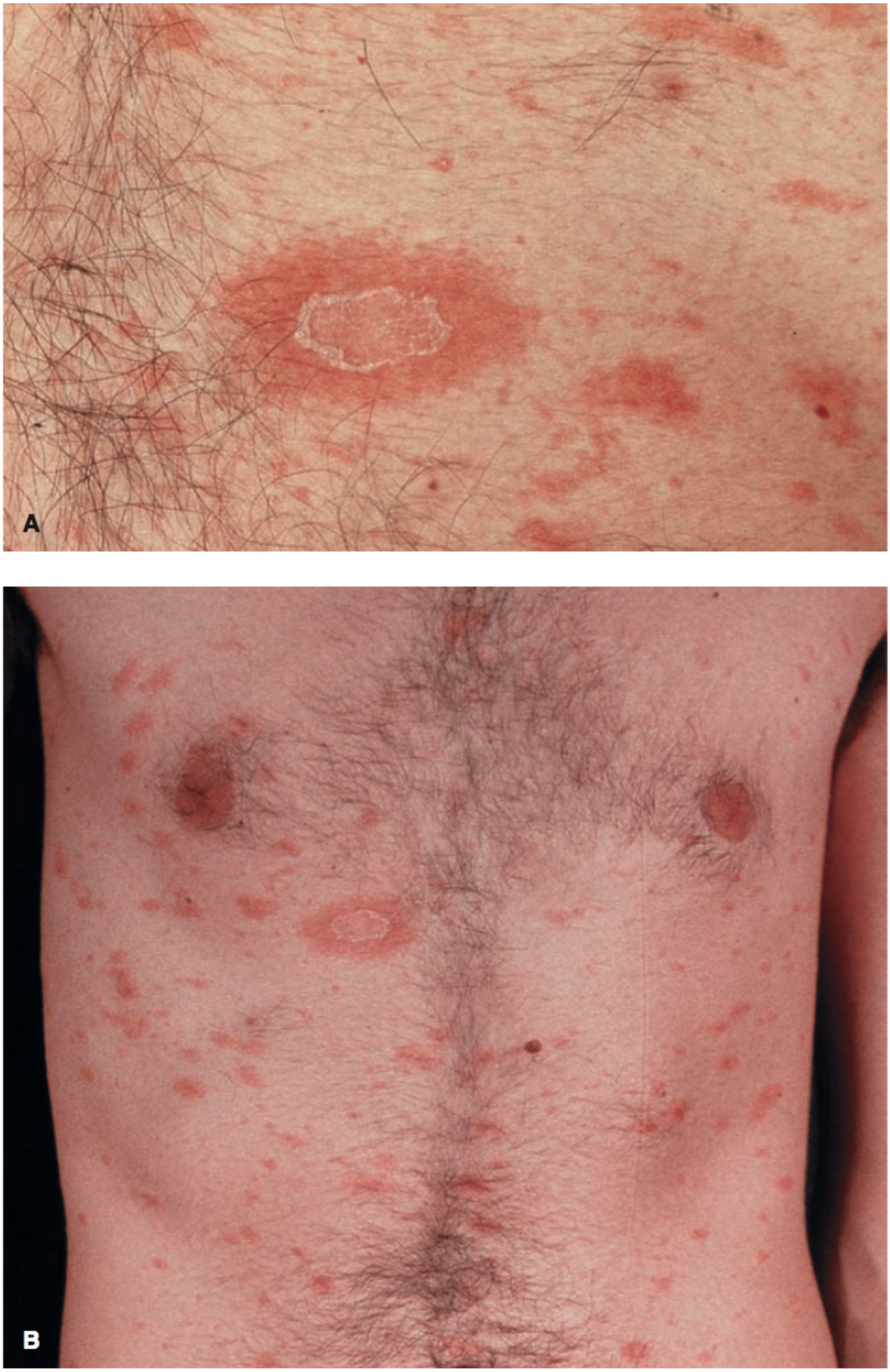
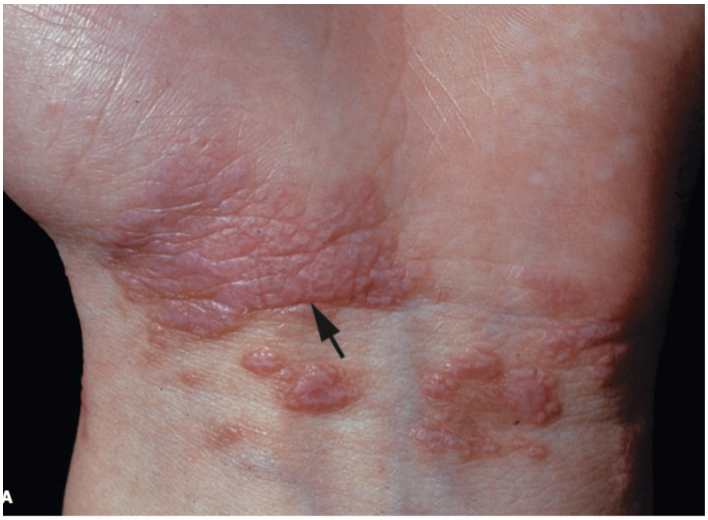
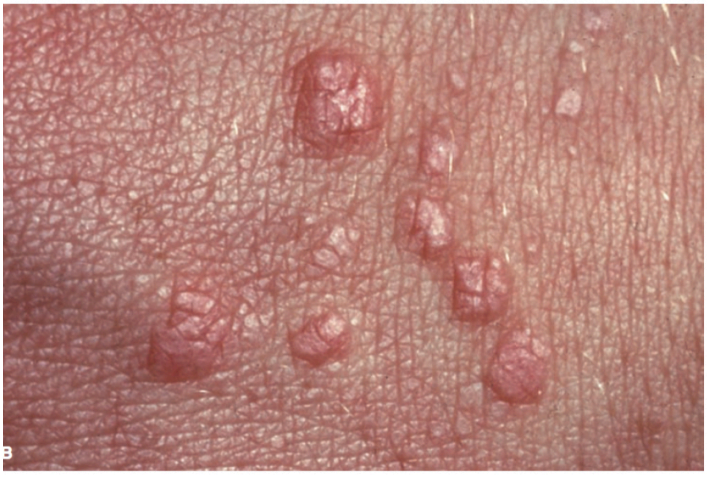
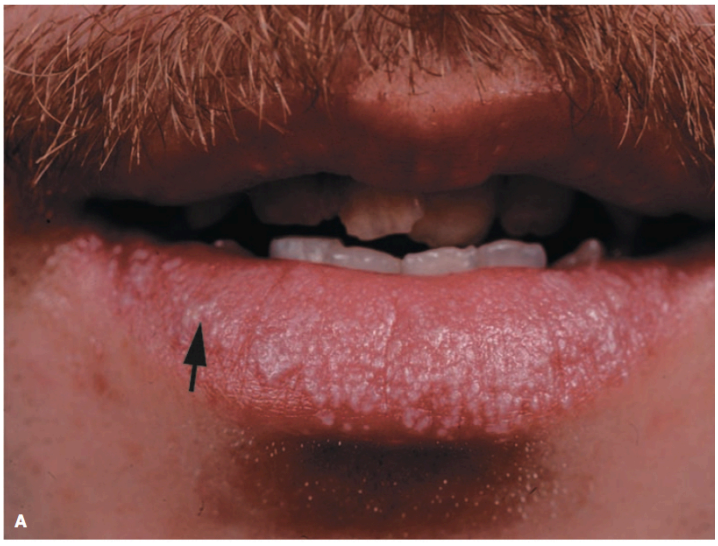


Figure 3-20. Pityriasis rosea (A). Herald patch. An erythematous (salmon-red) plaque with a collarette scale on the trailing edge of the advancing border. Collarette means that scale is attached at periphery and loose toward the center of the lesion. **(B)** Overview of exanthem of pityriasis rosea with the herald patch shown in part **(A).** There are papules and small plaques with oval configurations that follow the lines of cleavage. The fine scaling of the salmon-red papules cannot be seen at this magnification, while the collarette of the herald patch is obvious.





gure 14-20. Lichen planus (A) Flat-topped, polygonal, sharply defined papules of violaceous color, grouped and nfluent. Surface is shiny and, upon close inspection with a hand lens, fine white lines are revealed (Wickham striae, *row*). **(B)** Close up of flat-topped shiny violaceous papules that are polygonal.



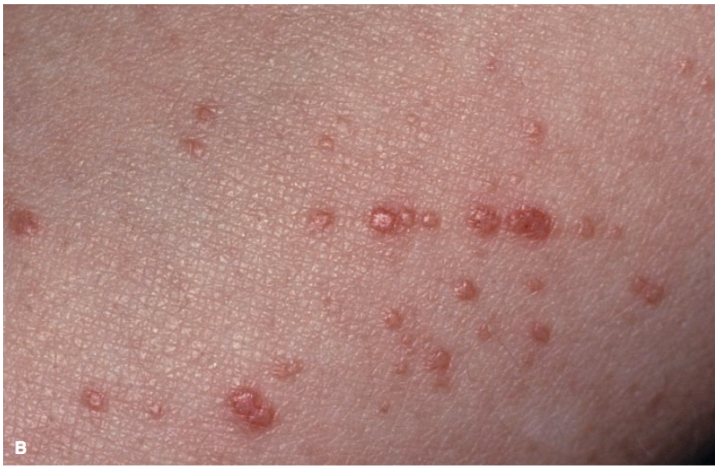


Figure 14-23. Lichen planus (A) Silvery-white, confluent, flat-topped papules on the lips. *Note*: Wickham str (*arrow*). **(B)** Lichen planus, Koebner phenomenon. Linear arrangement of flat-topped, shiny papules that erupted af scratching.

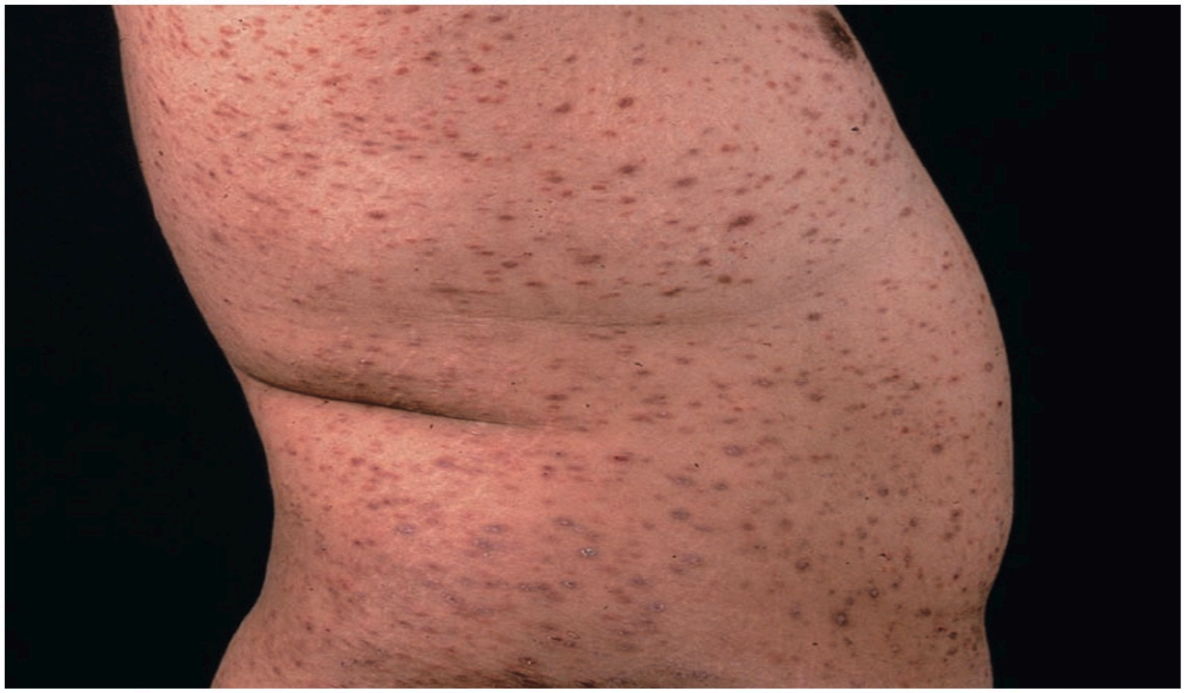


Figure 14-22. Disseminated lichen planus A shower of disseminated papules on the trunk and the extremities (not

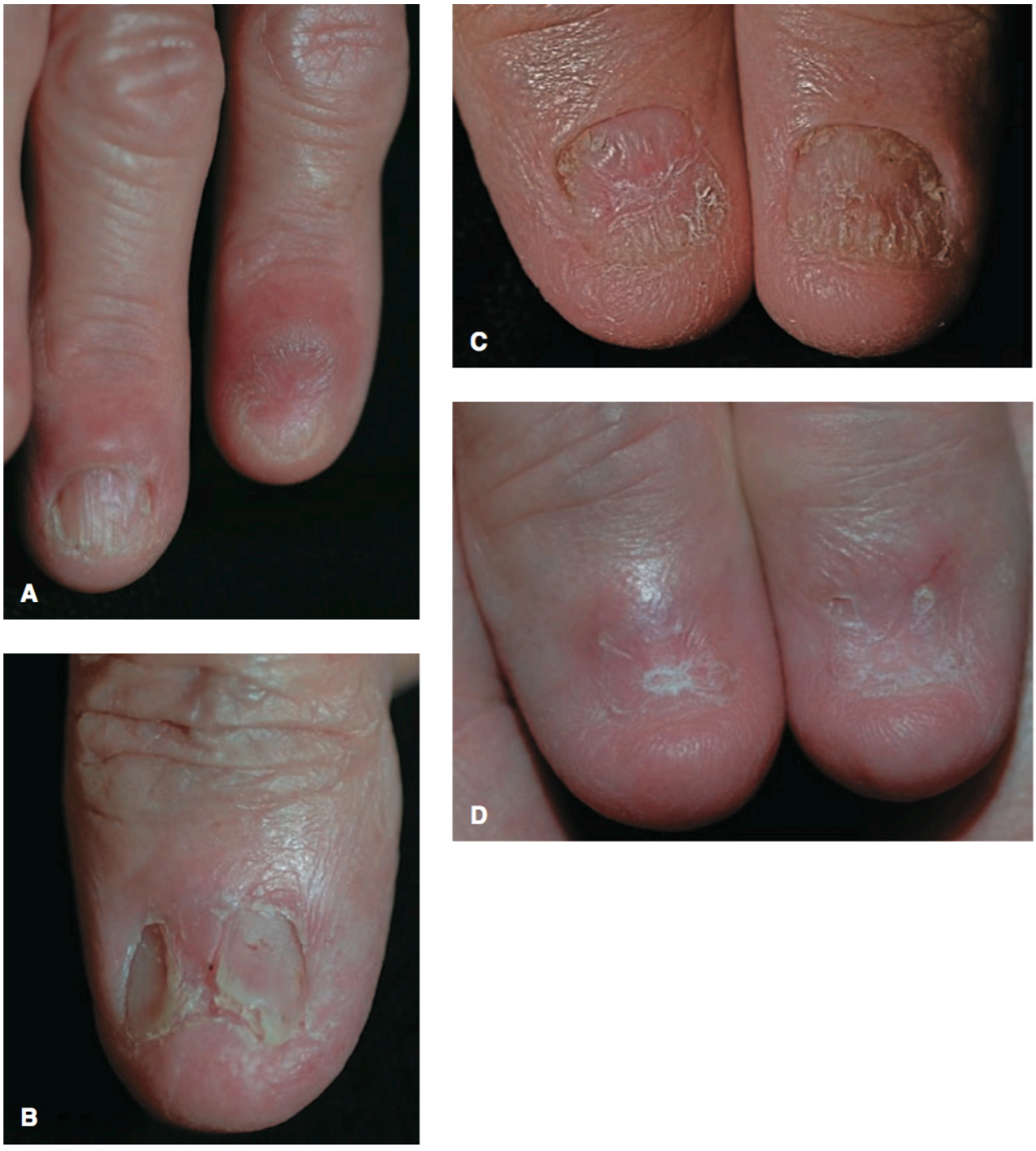


Figure 32-9. Lichen planus (A) Middle finger: involvement of the proximal fold and matrix has caused trachonychia, longitudinal ridging, and pterygium formation. Index finger: destruction of the matrix and nail plate is complete with anonychia. Seven of ten fingernails are involved; the others are normal. **(B)** Involvement of the nail matrix with scarring or pterygium formation proximally dividing the nail plate in two. **(C)** Early involvement of the matrix with thinning of the thumbnail plates. **(D)** Same patient as Fig. 32-8C 2 years later, the nail plate is completely destroyed, i.e., anonychia.