PSORIASIS

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DEFINITION

Psoriasis is a chronic, inflammatory, autoimmune diseases affecting mainly the skin with characteristic cutaneous clinical and histopathological features .It can be associated with significant morbidity and impaired patient quality of life .

It's not curable, and it's not contagious.



ETiology

Genetic predisposition: most likely determined via polygenic inheritance

- Trigger factors
 - **Infectious
 - **Mechanical irritation
 - **Drugs (e.g., beta-blockers, chloroquine, lithium, interferon)

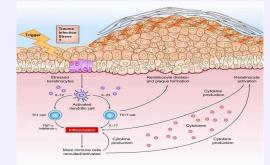
PATHOGENESIS

The mechanism causing the immune response is not yet well understood.

- Increased proliferation of keratinocytes Acanthosis: thickening of the epidermis
- Parakeratosis: retention of nucleated keratinocytes in the stratum corneum
- T cells secrete cytokines, which mediate an inflammatory response.

Keratinocytes need 28 days to complete the cycle from basal layer to the outer most

layer, but in psoriasis this cycle take 3-4 days.



CLINICAL PRESENTATIONS

*Skin:Primary lesion: Well demarcated erythematous plaques covered with dry silver scales on extensor surfaces (in psoriasis vulgaris)

Positive auspitz sign: pinpoint bleeding when scale is picked off

*Nail changes seen in psoriasis: Nail pitting, onycholysis, oil spot, and discoloration and thickening

*Scalp: Thick scaly plaques covered with silvery dry scales that may extend beyond the hair margin (vs seborrheic dermatitis which respect the margin)

****Mouth:** Geographical tongue

Subtypes OF PSORIASIS

- 1. Plaque psoriasis (psoriasis vulgaris)
- 2. Scalp psoriasis
- 3. Nail psoriasis
- 4. Flexural (inverse) psoriasis
- 5. Acute pustular psoriasis
- 6. Chronic palmoplantar pustulosis
- 7. Erythrodermic psoriasis
- 8. Guttate psoriasis
- 9. Unstable or 'brittle' psoriasis
- 10. Arthropathic psoriasis

1.PLAQUE PSORIASIS (PSORIASIS VULGARIS)

- **❖It** is characterized by well-defined erythematous plaques that may have adherent dry silvery scales
- Symmetrical plaques on elbows, knees, and lower trunk, with scalp involvement and it can be pruritic





Well demarcated, erythematous plaques covered with silvery dry scales on the knees

2.SCALP PSORIASIS

- **❖**Between 50% and 80% of patients with psoriasis develop lesions on their scalp.
- **❖**If it occur without skin lesions it is called scalp psoriasis.
- **❖**The scales are dry and silvery, and the lesions can be felt.
- **lesions may extend onto facial skin or posterior neck (do not respect the hair margin)





Well demarcated erythematous plaques covered with silvery scaly and extending beyond the hair margin.

3-NAIL DISEASE(NAIL PSORIASIS)

- Nail involvement is common in all forms of psoriasis, affecting an estimated 80% of patients with the disease especially in pustular, Erythrodermic and palmoplantar forms and with psoriatic arthritis.
- ◆Nail pitting, oil drop-like patterns of yellow or salmon discoloration, nail thickening, Onycholysis and discoloration.
- ❖ oil spot sign: yellowish brown spots that result from nail bed parakeratosis
- ❖Nail disease can occur without any skin involvement (nail psoriasis) Which is sometimes difficult to diagnose.



Onycholysis, discoloration, oil spots





Pitting and Onycholysis



Onycholysis, pitting and discoloration

4-INVERSE(FLEXURAL) PSORIASIS

❖Involves the groin and/or other intertriginous areas, such as the armpits, under the breasts, or in abdominal skin folds

- *Characterized by well-defined, shiny, erythematous plaques with minimal scaling (due to friction of the opposed skin leading to scale removal)
- ◆ Differential diagnosis: Fungal infection and Seborrheic dermatitis









Flexural psoriasis with nail changes (pitting).

Peri- umbilical flexural psoriasis.

5-PUSTULAR PSORIASIS

Eruption of sterile pustules that can be generalized and extensive or localized to existing plaques

von Zumbusch variant: Acute generalized pustular psoriasis, an uncommon, severe form of psoriasis that may be accompanied by edema and fever and may require hospitalization



Pustular psoriasis-Localized (palmoplantar)



Generalized erythema studied with sterile pustules.



It needs systemic treatment

6-PALMOPLANTAR PSORIASIS

- Characterized by yellow-brown sterile pustules on the hands and feet
- Nail changes are more frequent in this variant
- Patients may also experience scaling and severe pruritus, making this variant difficult to differentiate from hand eczema
- more common in women
- **Smoking** is a risk factor for this variant

Differential diagnosis:
o Eczema (biopsy is helpful for making the diagnosis of psoriasis)
o Fungal infection

PALMOPLANTAR PSORIASIS



Well-defined Itchy erythema with scaling



Well-defined itchy erythema with scaling, some pustules.



Well-defined itchy erythema with scaling, some pustules and nail changes.

7-ERYTHRODERMIC PSORIASIS

- Erythrodermic psoriasis appears as generalized Exfoliative dermatitis that can affect a large percentage of a patient's body surface area.
- Erythrodermic: affection of more than 90% of BSA (body surface area
- Hair loss and nail dystrophy are common with this type
- Patients may experience fever, chills, and/or fatigue
- can be life-threatening and require hospitalization



ERYTHRODERMIC PSORIASIS



Generalized erythema with scales, can appear due to maltreated psoriasis vulgaris

8-GUTTATE PSORIASIS

- Characterized by small, scattered, pink, oval (drop-shaped) papules with silvery scaling that usually appear on the trunk and extremities
- typically occurs as new onset psoriasis in patients under 30 years of age
- Guttate psoriasis is often triggered by strep throat infections.
- Systemic antibiotic should be given
- Good prognosis

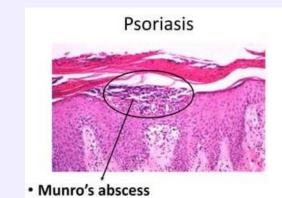


Small, erythematous papules (drop shaped lesions) covered with scales on the trunk and extremities.

Differential diagnosis: pityriasis rosea, lichen planus, pityriasis lichenoides

HISTOPATHOLOGICAL FEATURES

- 1. Hyperkeratosis
- 2. Parakeratosis
- 3. Munro's microabscess
- 4. Acanthosis
- 5. Hypogranulosis
- **6.** Lymphocytic inflammatory infiltrate





EXACERBATING FACTORS

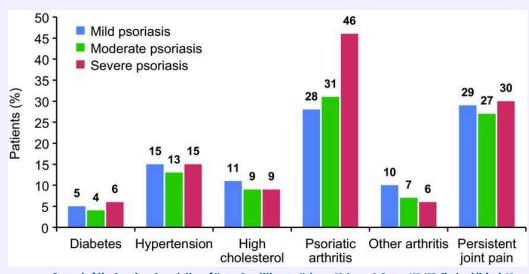
- Infections, particularly strep throat
- Smoking, alcohol consumption, obesity



- Skin trauma
- Emotional stress
- In women, psoriasis severity often fluctuates with changes in hormone levels

ASSOCIATED CO MORBIDITIES

- 1. Psoriatic arthritis.
- 2. Hyper lipidemia.
- 3. Obesity.
- 4. Hyper tension.
- 5. Hyper metabolic syndrome.
- 6. Increased risk for cardiovascular disease.



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PSORIATIC ARTHRITIS

One in five patients with psoriasis has psoriatic arthritis (20%).

It is a Seronegative arthritis.

Nail changes is seen more with psoriatic arthritis.

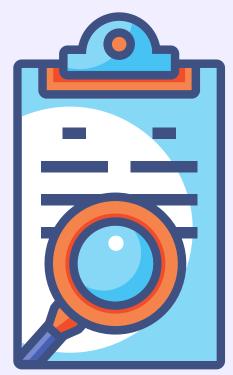
Dactylitis is a clinical feature.

X-ray is helpful in the diagnosis.



DIFFERENTIAL DIAGNOSIS FOR PSORIASIS

- 1. Eczema.
- 2. Lichen planus.
- 3. Fungal infection.
- 4. Pityriasis rubra pilaris.
- 5. Pityriasis lichenoides.
- 6. Mycosis fungoides.
- 7. Secondary syphilis (especially in Guttate psoriasis).



TREATMENT

No curable treatment till now.

The goal of treatment is to control the disease to go

into a remission.

TOPICAL TREATMENT AGENTS

- Crude coal tar (Carcinogenic & smelly)
- 2. Emollients (Petrolatum / Vaseline)
- 3. Dithranol
- 4. Topical steroids
- 5. Topical calcipotriol (Vit.D derivative)
- 6. Topical Calcineurin inhibitor (Tacrolimus)
- 7. Topical retinoids (Vit. A derivatives)
- 8. Local phototherapy
- 9. Local laser treatment

Topical treatment for less severe (<10% BSA) as first line of treatment



Phototherapy-Local for nail disease/ Palmoplantar

SYSTEMIC TREATMENT OPTIONS

- 1. Phototherapy (PUVA and NB-UVB)
- 2. Methotrexate (low weekly dose)
- 3. Retinoids (Vit. A derivatives)
- 4. Cyclosporine
- 5. Apremilist
- 6. Biological treatment



Systemic treatment for more extensive and severe disease and failure of topical treatment

thank you