DEFINITION

According to www.mayoclinic.com, “ psoriasis is defined as a persistent skin disease causes cell to build rapidly on the surface of the skin, forming thick silvery .”scales, itchy,dry and red patches

HISTORY

The word psoriasis is derive from greek '.word 'psora' means 'itching

The greek physician Galen of perganon (130-200 BC) use the term Psoriasis vulgaris to refer all dermo and .epidermopathies accompanied by pruiritis

Since 1950 local application and systemic .medications are used for the psoriasis

Epidemiology

- Psoriasis affects both sexes equally.
- Can occur at any age (most commonly appears for the first time between the ages of 15 and 25 years).
- The prevalence of psoriasis in Western populations is estimated to be around 2-3%.
- Around one-third of people with psoriasis report a family history of the disease.
- Onset before age 40 usually indicates a greater genetic susceptibility and a more severe or recurrent course of psoriasis.

INCIDENCE

- 1-3% and in America and western
- Lower rates are found in Japanese and psoriasis is rare in West Africans
- Psoriasis first appears during 2 peak age ranges:The first peak occurs in persons aged 16-22 years, and the second occurs in persons aged 57-60 years

PREVALENCE

- Psoriasis occurs in 2% of the world's population
- Highest in Caucasians (Scandinavian/European descent)
- In Africans, African Americans and Asians between 0.4% and 0.7%
- 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

ETIOLOGY

Idiopathic cause

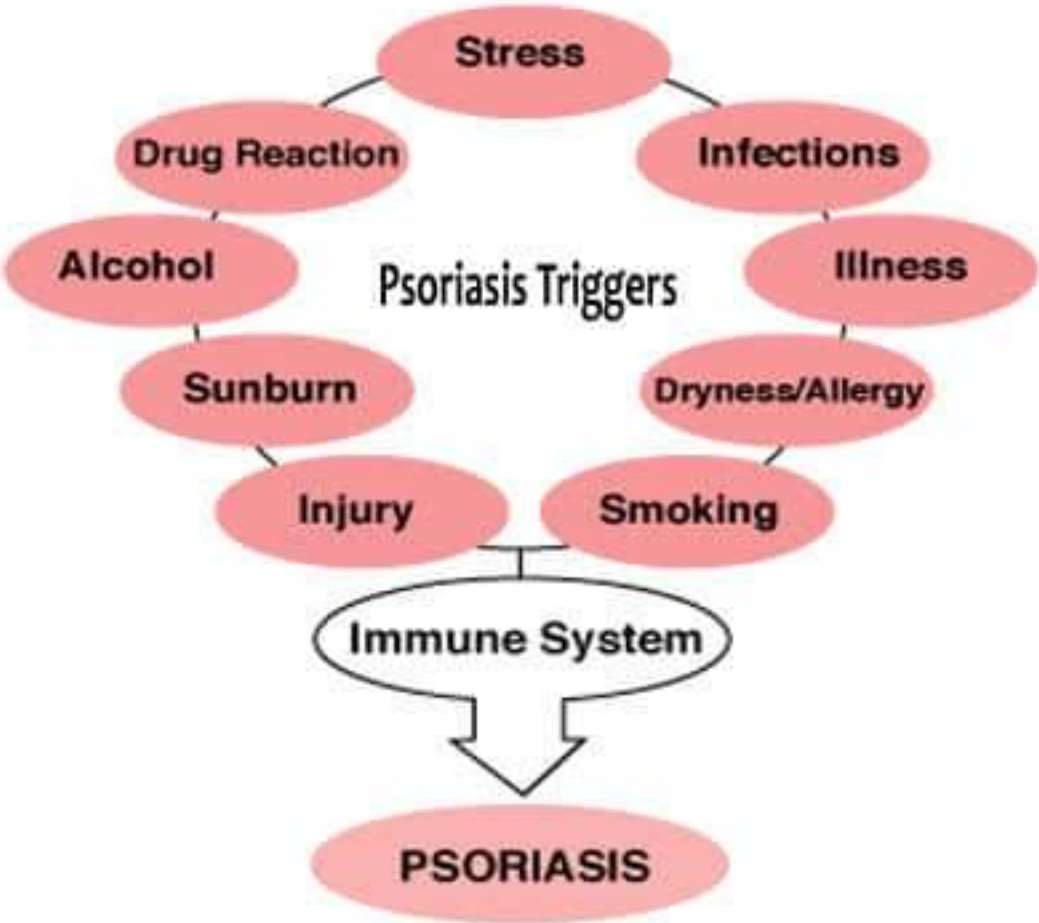
Some of the factors that may trigger :psoriasis are

Genetic

Autoimmune reaction

Infection

Injury to skin


Stress
Drug Reaction
Infections
Alcohol
Psoriasis Triggers
Illness
Sunburn
Dryness/Allergy
Injury
Smoking
Immune System
PSORIASIS

CLASSIFICATION

:There are several types of psoriasis include

Plaque psoiasis-

Guttate psoriasis-

Inverse psoriasis-

Pustular psoriasis-

Erythrodermic psoriasis-

Nail psoriasis-

Psoriatic arthritis-

GUTTATE PSORIASIS

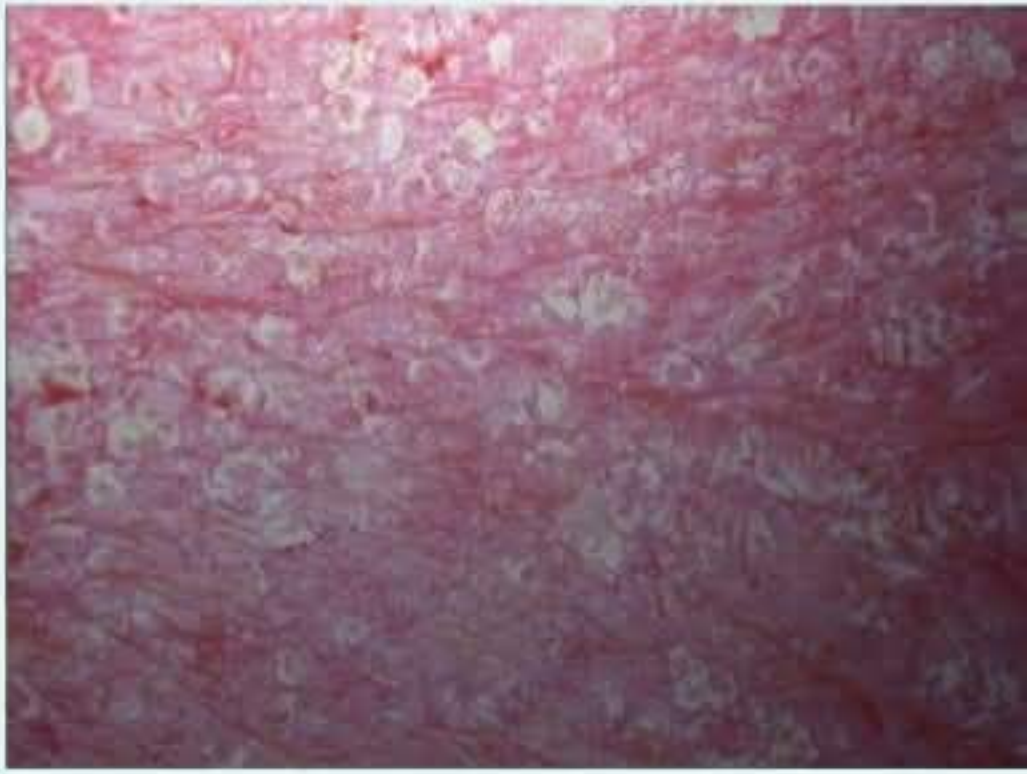
- Characterized by numerous 0.5 to 1.5 cm small oval (tear drop shaped) papules and plaques
- Appear over large areas of the body, such as the trunk, limbs, and scalp.
- Early age of onset
- Most common form in children
- Streptococcal throat infection often a trigger and rashes develop 1-2 weeks following infection
- Spontaneous remissions in children
- Often chronic in adults

Plaque psoriasis.

- 85-90% of people with psoriasis.
- Raised areas of inflamed skin covered with silvery-white scaly skin.
- Elbows, knees, scalp & back.
- Uncontrolled plaque psoriasis -> psoriatic eythroderma.
- Severe itching, swelling and pain.
- Often occurs from abrupt withdrawal of glucorticosteroids.
- Fatal – affects the function of skin – temperature and barrier functions.

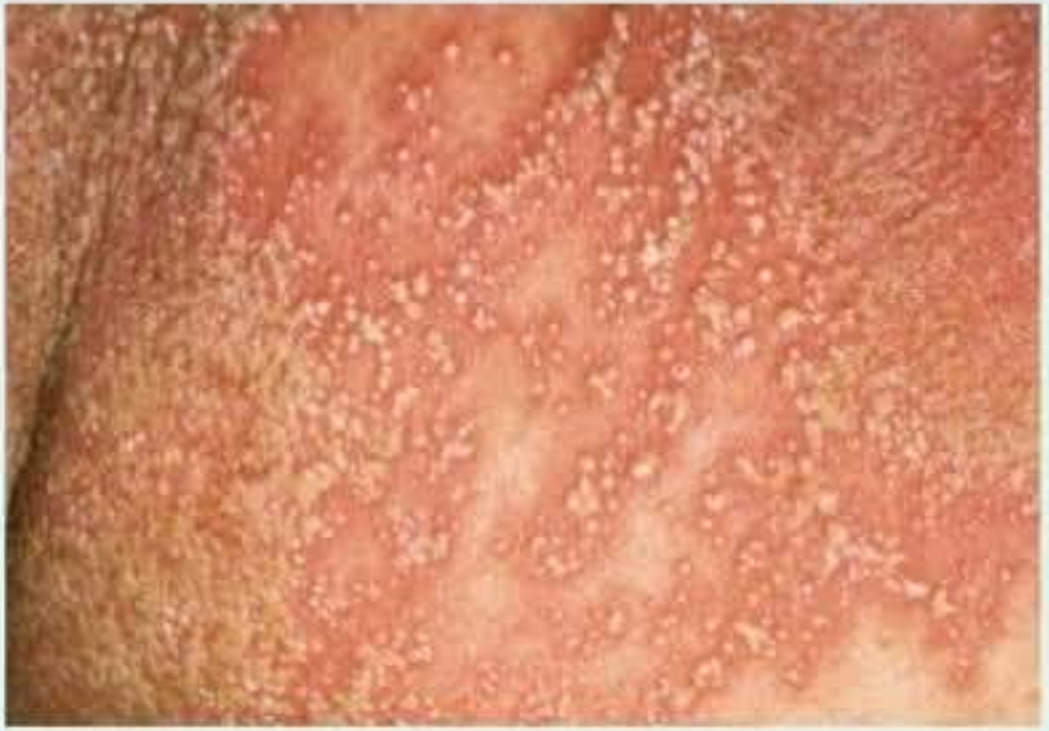
ERYTHRODERMIC PSORIASIS

- Generalised erythema covering entire skin surface
- May evolve slowly from chronic plaque psoriasis or appear as eruptive phenomenon
- Patients may become febrile, hypo/hyperthermic and dehydrated
- Complications include cardiac failure, infections, malabsorption and anaemia
- Relatively uncommon



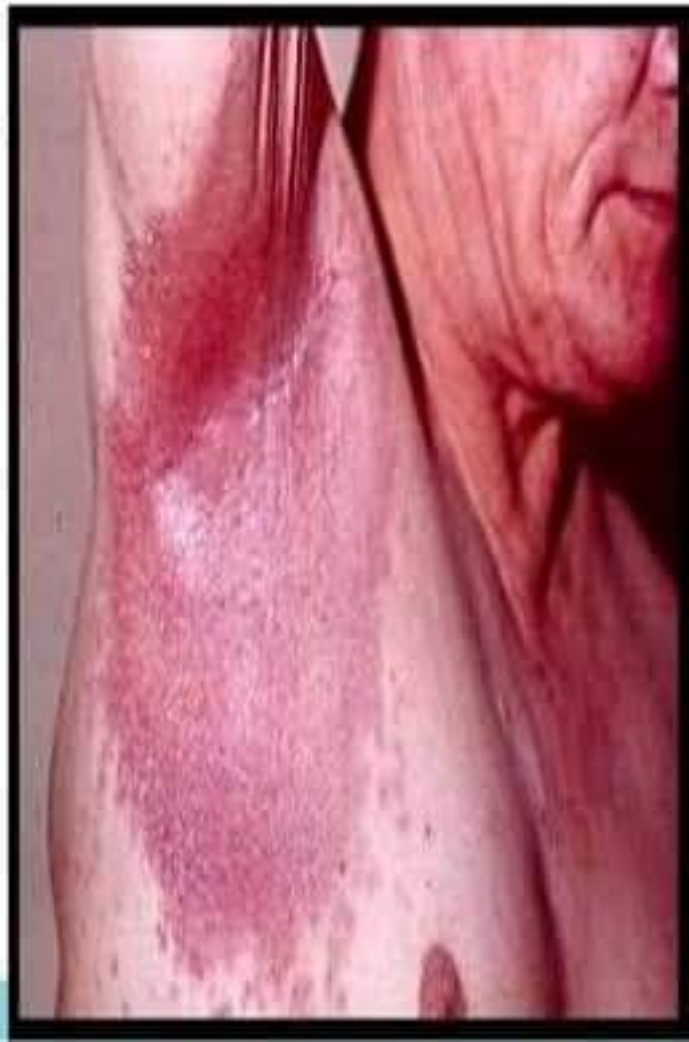
PUSTULAR PSORIASIS

- Two forms:
- **Localised form**
- More common
- Presents as deep-seated lesions with multiple small pustules on palms and soles
- **Generalised form**
- Uncommo Associated with fever and widespread pustules across the body
- inflamed body surface



INVERSE PSORIASIS

- Localized in the major skin folds, such as the axilla, the inguinal and inflammatory areas and sweating areas
- Scaling is usually minimal or absent, and the lesions appear glossy, smooth and bright red.
- Its is commonly seen in obese client.



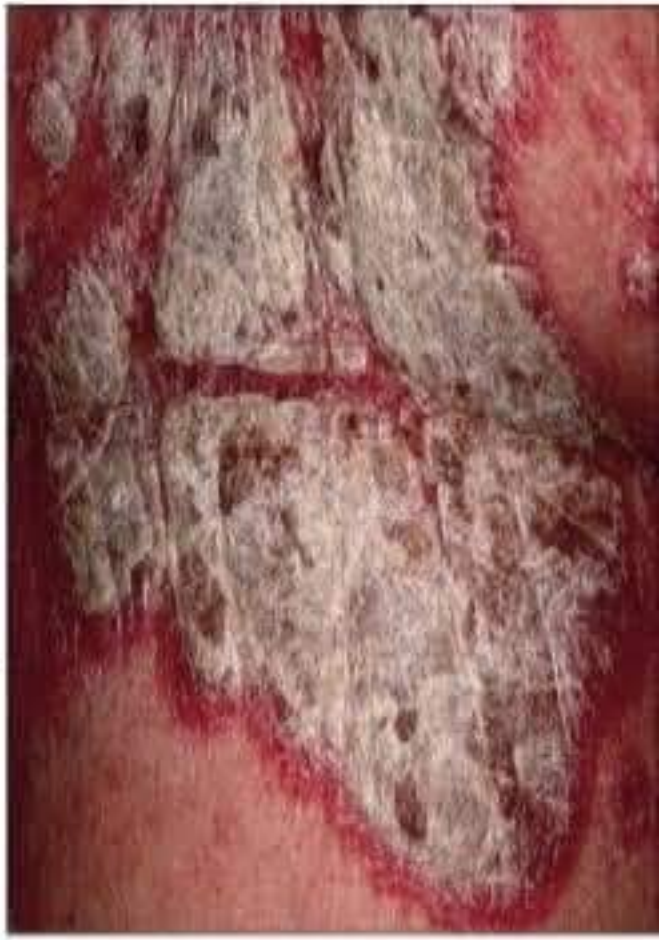
PLAQUE PSORIASIS

It is the most common type of- .psoriasis

It is also known as psoriasis- .vulgaris

It is appear as raised, inflammed,- red skin covered by silvery .patches or scales

Sites :Elbows, Knees, sacrum,- Scalp, loer back, Hands and .Feet



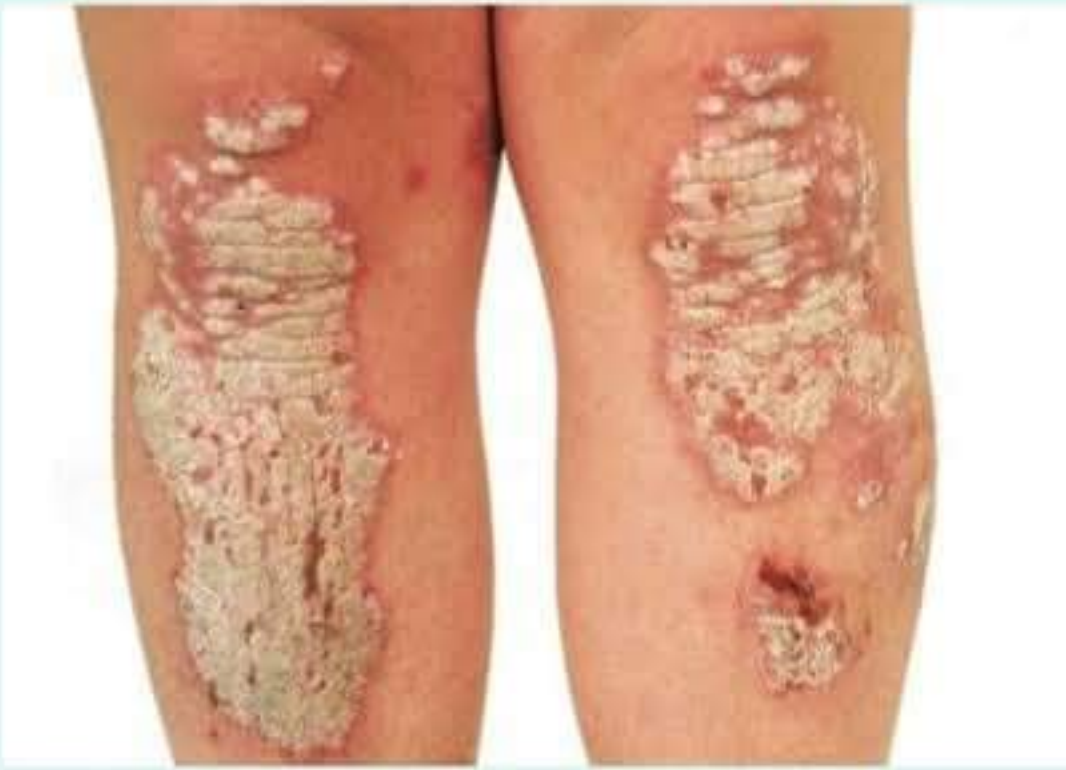
PSORIATIC ARTHRITIS

The most distinctive features of psoriatic arthritis are

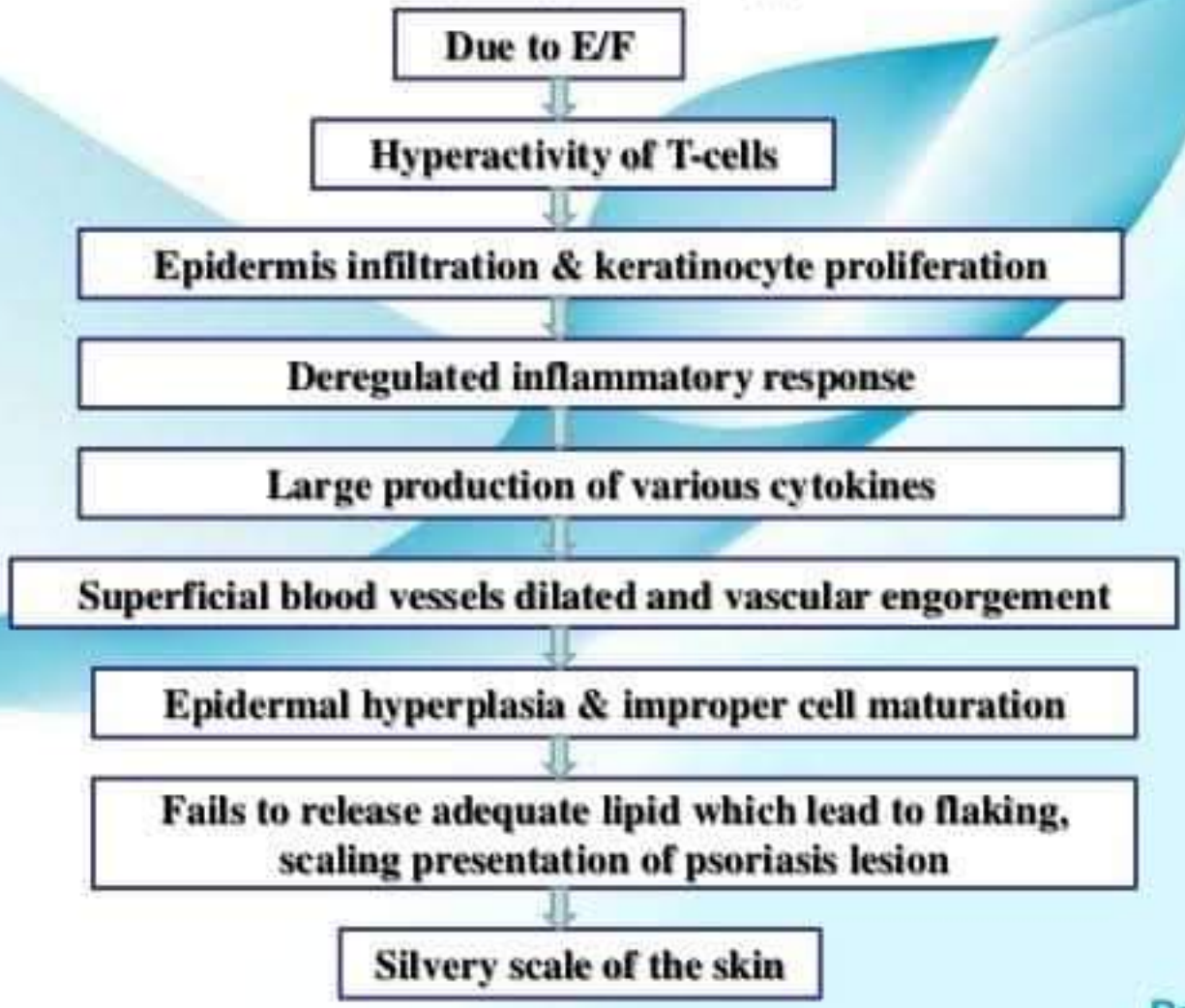
- Distal interphalangeal joint arthritis
- Dactylitis

CHRONIC PLAQUE PSORIASIS

- Most common type – affects approximately 85%
- Features pink, well-defined plaques with silvery scale
- Lesions may be single or numerous
- Plaques may involve large areas of skin
- Classically affects elbows, knees, buttocks and scalp



Pathophysiology



COMMON CLINICAL :MANIFESTATIONS

It will vary according to types of at psoriasis.Intially the first sign of psoriasis is often red spots on
. the body

: The patches of skin

Dry, swollen and inflammed

Covered with silver white flakes

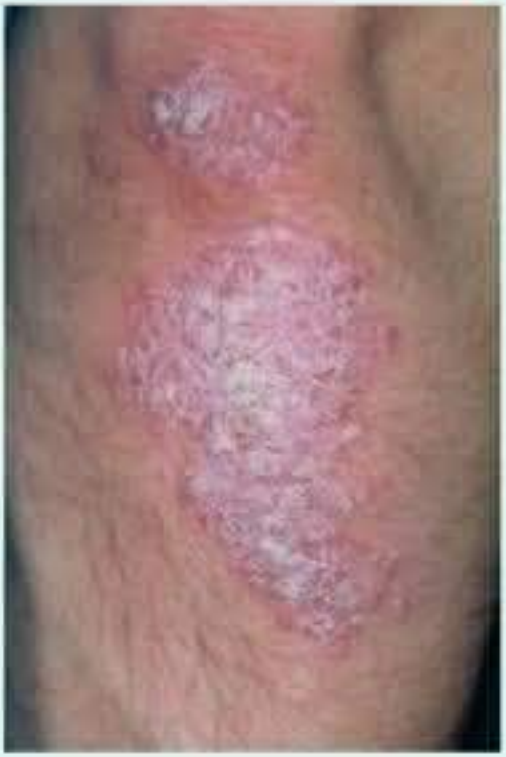
Raised and thick skin

: Other symptoms of psoriasis includes

Pain, itching and burning

CLINICAL PRESENTATION: **CLASSIC PSORIASIS**

- Well-defined and sharply demarcated
- Round/oval-shaped lesions
- Usually symmetrical
- Erythematous, raised plaques
- Covered by white, silvery scales



Diagnostic Investigations

- Collect history
- Physical examinations
- Skin biopsy : under local anesthesia
- Blood and radiography test was done to rule out psoriatic arthritis (ESR, C- Reactive protein)

TREATMENT OPTIONS FOR PSORIASIS

- Stepwise approach is advised
- Treatments include:
  - General measures and topical therapy
  - Phototherapy
  - Systemic and biological therapies
- Combination therapies : may reduce toxicity and improve outcomes

Management

1. **Topical treatment** – it slow overactive epidermis.

I. **Topical corticosteroids** – they slow the turnover by suppressing the immune system which reduce inflammation & relieve itching.

II. **Topical steroids**

III. **Vitamin D analogues** – e.g.. – calcipotriene, it suppress epidermopoiesis (development of epidermal cells) causing sloughing of growing epidermal cells.

IV. **Coal tar** – dry distillation product of organic matter heated in the absence of oxygen, combination of creams, ointments and pastes.

V. **Tazarotene** – it reduce mainly scaling & plaque Thickness, normalize the DNA activity.

VI. **Topical Calcineurin Inhibitors** – tracolimus, they inhibit activation of the cells which reduce inflammation and plaque build up.

VII. **Emollients** – to avoid dryness. It reduce scaling and limit pain.

2. **Phototherapy**

I. **Sunlight** – activated T-cells in skin are destroy lead to reduce scaling and inflammation.

II. **UV broadband phototherapy** – artificial light

PUVA (photochemotherapy)

What is PUVA?

PUVA or photochemotherapy is a type of ultraviolet radiation treatment (phototherapy) used for severe skin diseases.
PUVA is a combination treatment which consists of Psoralens (P) and then exposing the skin to UVA (long wave ultraviolet radiation). It has been available in its present form since 1976.
Psoralens are compounds found in many plants which make the skin temporarily sensitive to UVA.
The ancient Egyptians were the first to use psoralens for the treatment of skin diseases thousands of years ago. Medicine psoralens include methoxsalen (8-methoxypsoralen), 5-methoxypsoralen and trisoralen.

MECHANISMS OF PHOTOCHEMOTHERAPY

- **PSORALENS**- Photoconjugation of psoralens to DNA with subsequent suppression of mitosis, DNA synthesis, and cell proliferation → revert ↑ cell proliferation rates to Normal in Psoriasis . They also stimulate melanogenesis

- **PUVA** - Revert pathologically altered patterns of keratinocyte differentiation & ↓ the no. of proliferating epidermal cells.
  - Diminishes langerhans cell no's within epidermis.
  - Downregulates certain lymphocytes & APC functions
  - Alters expression of cytokines and cytokine receptors

Nursing management

1. **Nursing diagnosis** – Impaired skin integrity related to lesion & inflammatory response as evidence by itching all over the body.

   Nursing goal – To maintain skin integrity

   Intervention

- To advice the patient not to scratch the affected areas.
- Too frequent washing produce more soreness & scaling water should be warm, not hot and the skin should be dry by patting a towel rather then rubbing. .
- Apply a thin film of emollients after washing the area.
- Provide a calorie and high protein diet.

2. **Nursing diagnosis** – risk of infection related to hyponatremia as evidence by loss of protein and fluid from lesion.

   Nursing goal – To prevent from infection

   Intervention

- Monitor vital sign.
- Examine for sign of infection.
- Keep the lesion clean.
- Motivate the patient to improve the nutrition.
- To provide the antibiotics.

3. **Nursing diagnosis** – acute pain related to inflammation as evidence by patient verbalization.

   Nursing goal – to reduce the pain

   Intervention

- Provide the emollients after washing the area it will relieve the soreness.
- To provide the comfort measures.
- To provide the pain medication which relieves pain.

COMPLICATIONS

Infection

Fluid and electrolyte imbalance

Low self esteem

Depression

Stress

Metabolic syndrome

Hypertension

Joint damage