

Eczema and pruritus

Dr.Awad Al-Tarawneh,MD

Presented by :

Hamza Al-Ja'afreh

Marwan Al-Hamaideh

Ahmad Al-Hamaideh

Eczema

- **Definition ?**
- Eczema is a term used for a group of conditions that cause the skin to become **inflamed , red and itchy** , (**Itching** is the characteristic and the presenting symptom) .
- **Dermatitis** can be used as another term for eczema
- Eczema is **not infectious**
- **Eczema** can be classified according to the onset and duration into ; **acute and chronic**

Acute eczema	Chronic eczema
Recent Acute onset	Long lasting
Marked erythema	Thick scaly skin (lichenification)
Marked edema with vesicle formation and oozing	Less edema
Recent marked itching	Itching during exacerbation

Acute eczema



Chronic eczema



- Eczema also can be classified according to the **cause** into; **endogenous and exogenous**

endogenous

Atopic dermatitis

Seborrheic dermatitis

Discoid(nummular) eczema

Stasis dermatitis

Asteatotic eczema

Dyshidrotic eczema

exogenous

Contact allergic dermatitis

Contact irritant dermatitis

Contact allergic photodermatitis

Contact irritant photodermatitis

Exogenous eczema

1 - Contact allergic dermatitis(eczema)

- It is a **type four** hypersensitivity reaction ,it occurs **in predisposed persons** only
- Needs **previous sensitization** and occurs after second and after each exposure to the offending substance
- Allergic substances include: nickel, cement, rubber, dyes and others
- It occurs in **some persons** with **some substances**,
regardless the concentration of
the substances or the duration
of the exposure.



Contact allergic dermatitis



2 - Contact irritant dermatitis(eczema)

- It can occur in **all persons** if they expose to the substance for long duration or with high concentration, even after **first exposure**
- **No need** for sensitization
- Examples : Chemicals ,detergents



Contact allergic dermatitis

type four hypersensitivity reaction

predisposed persons
some persons with some substances

Needs previous sensitization

regardless the concentration of
the substances or the duration

nickel, cement, rubber, dyes and others

Contact irritant dermatitis

Non-specific , toxic effect

occur in all persons

No need for sensitization

substance for long duration or with high
concentration

Examples : Chemicals ,detergents

3 - Contact allergic photodermatitis(eczema)

- It is a contact allergic dermatitis but it needs **sun exposure** occur
- Sun exposure is needed for the eczematous reaction to develop

4 - Contact irritant photodermatitis (Eczema)

It is a contact irritant dermatitis but it needs **sun exposure** to develop

Patch test

- **Patch test** is a diagnostic test to **detect the allergic substance** that cause the allergic contact dermatitis .Its avoidance cures the disease and this is important in occupation related skin reactions
- **Photo patch test** is the same but it is used for photo allergic dermatitis and the tested area needs **exposure to ultraviolet light(sun light)**



Endogenous eczema

1 - Atopic dermatitis

- Common inflammatory itchy skin disease
- Affects 20% of children and 1-3% of adults
- 85% of patients are less than the age of 5 years
- 70% of patients will go into remission before adolescence
- No laboratory test to diagnose atopic eczema
- Diagnosis is clinically (a triad of dry skin, itching and specific eczematous lesions especially in flexures)
- It can be a part of atopic state that includes ;Atopic eczema, hay fever, allergic rhinitis, allergic conjunctivitis and bronchial asthma
- Cheeks is a common sites of skin lesions in infants and flexures is a common sites in children and adults
- Patients with atopic dermatitis are vulnerable for infection and allergic reactions





2 - Seborrheic dermatitis

- Common itchy chronic inflammatory skin disease
- Affects mainly **newborns and adults**
- There is a possible role for pityrosporum ovale (yeast)
- In **newborns** it can appear as **cradle cap**

- In **adults** appears as **erythematous lesions with greasy scales** on the Face and/or scalp ,anterior chest upper back and skin folds
Its differential diagnosis includes psoriasis



shutterstock.com • 561450823



www.shutterstock.com © Logical Images - Inc.

3 - Discoid (nummular) eczema

- Chronic itchy inflammatory skin disease that can affect children and adults
- Characterized by **disc - shape lesions bilaterally** with sometimes mirror image distribution
- Commonly lesions involve the **extremities** more than the trunk
- Usually does **not affect the face and scalp**
- Differential diagnosis includes:
psoriasis and fungal infection



4 - Asteatotic eczema

- Chronic itchy inflammatory skin disease often affects elderly
- Mostly due to **water loss from the stratum corneum** because **of genetic and environmental factors** (**desert** ,**winter**, **excessive bathing**)
- **Starts on the shins and then spreads**
- The skin is **dry and cracked** –appearance of crazy paving
- Differential diagnosis includes acquired ichthyosis and skin changes of hypothyroidism



5 - Stasis eczema(Gravitational dermatitis)

- Occur mostly in people aged **50 years or older** with **lower limb stasis**
- Chronic itchy inflammatory skin disease due to stasis
- Occur in **women** more than in men
- Lower limbs usually affected with **scaly erythematous and hyperpigmented** (due to **hemosiderin deposition**) **ill defined lesion**
- Differential diagnosis include DVT,erysipelas and cellulitis



6 - Dyshidrotic eczema

- Chronic itchy inflammatory skin disease affecting the **hands** (**cheirpompulox**) and/or **feet** (**podopompulox**)
- Most often affects **young adults**
- Characterized by **deep seated vesicles and blisters on the palms, fingers, soles and toes**
- Many patients report **palmoplantar hyperhidrosis**
- Differential diagnosis includes : psoriasis, contact dermatitis and id-reaction (an allergic reaction to an inflammatory dermatophyte fungal infection elsewhere.



Management

- **Prophylactic measures** to **avoid exacerbating factors** like harsh clothes, irritants, infections and stress especially in atopic and seborrheic eczema
- Treatment of stasis in stasis dermatitis
- **Emollient** especially important for atopic and asteatotic eczema
- **Topical steroids**
- **Topical calcineurin inhibitors** (tacrolimus)
- **Antihistamines**
- Some times short course of **systemic steroids** in **severe** cases especially in **acute forms or sever exacerbation**

Pruritus

- Pruritus is a complex **neurophysiological process** through different mediation **as a protective response to remove pruritogens**
 - Pruritus is the most common dermatologic symptom
 - Pruritus should challenge the dermatologist to search for **underling cause**
 - Pruritus can **occur with or without skin lesions** and may represent a **dermatological or systemic disorders**
 - Pruritus can be **localized or generalized**

Few clinical clues

- Acute pruritus with no primary skin lesions and of short duration is less suggestive of systemic cause
- In pruritus not related to a primary skin disease there is only excoriation and secondary changes
- When multiple family members are affected think of infestation
- Pruritus after bathing think of polycythemia rubra vera
- Night pruritus with chills, sweating and fever think of Hodgkin's disease



Neurotic excoriations



is a **psychodermatological** disease characterized by an **irresistible urge to scratch** and pick healthy skin, which leads to self-inflicted lesions

Xerosis

- Dry skin
- Elderly



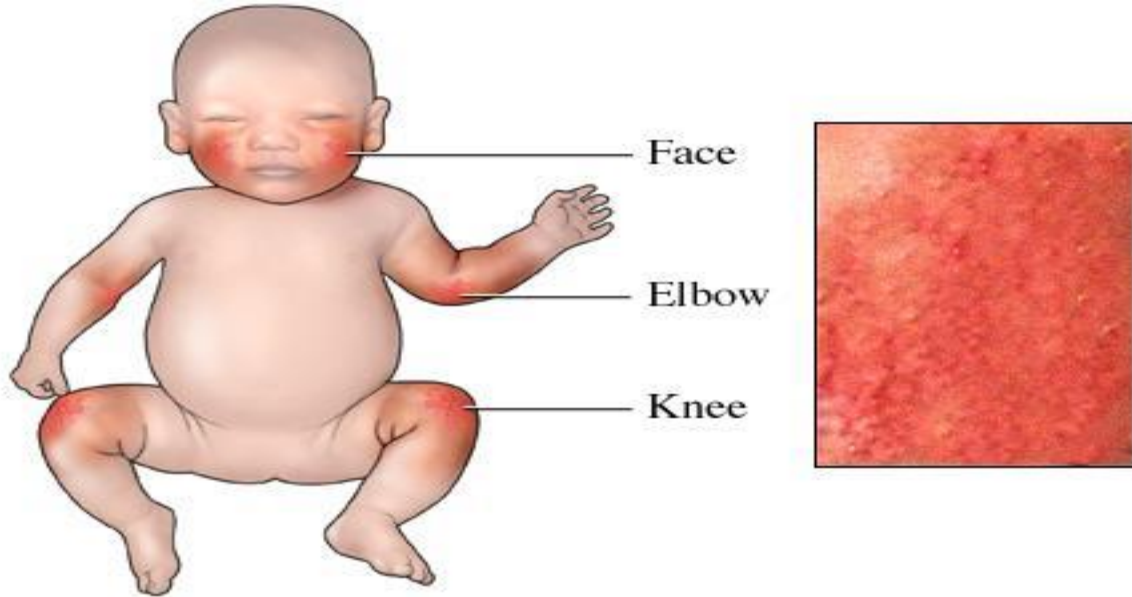
Scabies



Pediculosis



Atopic dermatitis



Urticaria



Psoriasis

- Although psoriasis is **not an itchy** disease
- 85% of pt. suffer from generalized pruritus in one study



Infection



Folliculitis

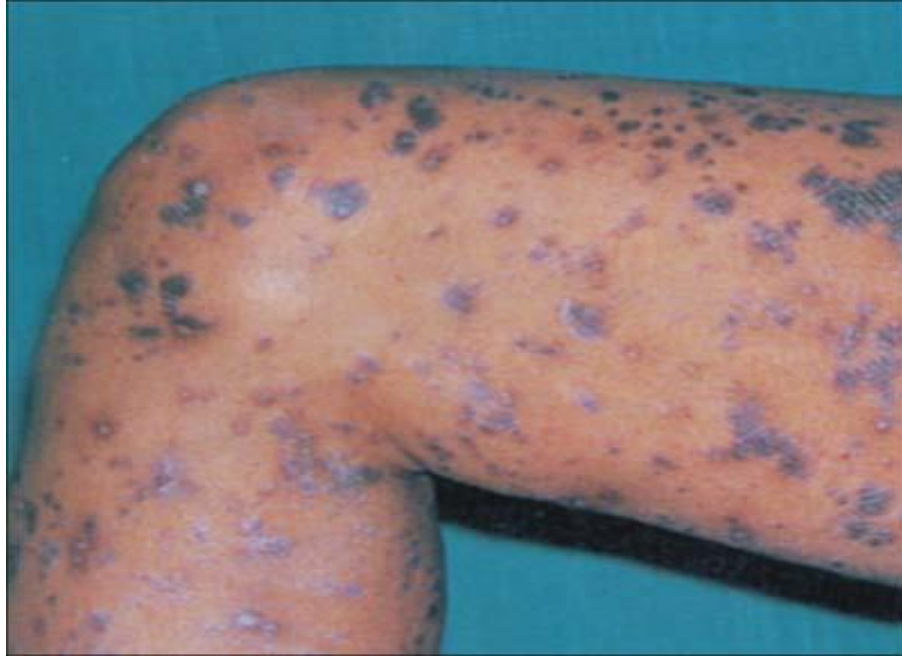


Herpes



chickenpox

Lichen planus



Dermatitis herpetiformes



Cutaneous T cell lymphoma



Localized pruritus

- Lichen simplex chronicus (neurodermatitis)
- Prurigo nodularis
- Pruritus ani
- Pruritus vulvae and scroti
- Scalp pruritus
- Pruritus in scar

Lichen simplex chronicus(neurodermatitis)



Prurigo nodularis



Pruritus Ani

- Localized
- 25-95% primary – (Idiopathic) no cause



Pruritus vulvae and scroti

- Infection
- Skin disease – LP , psoriasis
- Neoplasm , Paget`s disease
- 7% psychogenic



Pruritus in scar

- Associated with normal wound healing , nerve regeneration



Purities of systemic disease

Renal prurities

- Mechanism still unknown
- Can be localized or generalized
- Treatment **Gabapentin** 200-300mg after hemodialysis session
- **Renal transplant** is the most effective treatment

Cholestatic pruritus

- **Any liver disease** can cause pruritus
- Worse at **night**
- Worse on **hands and feet** and **body regions constricted by clothing**
- Treatment is **treating and removing the primary cause** .
Examp. remove galblader stones

Heamatologic pruritus

- **Iron deficiency**
- **Polycythemia rubra vera**
- treatment Aspirin 300 mg t.i.d , phototherapy

Pruritus and malignancy

- Any malignancy can induce pruritus as a **paraneoplastic phenomenon**
- **Hodgkin disease** – strong association
- **Non – Hodgkin`s lymphoma** – less common (2%)
- **Leukemia** – CLL chronic lymphocytic leukemia.

Endocrine pruritus

- Thyroid disease
- Diabetes melitus

Pruritus in pregnancy

- Dermatoses of pregnancy :



prurigo of pregnancy



pemphigoid gestationes



**pruritic urticarial plaques and
papules of pregnancy**

Cholestasis of pregnancy

- Generalized pruritus with or without jaundice
 - Absence of primary skin lesions
- Biochemical abnormalities consistent with cholestasis
 - Disappearance of signs and symptoms after delivery
 - Recurrence during subsequent pregnancies
- Increased serum bile acids
(cholic acid , deoxycholic acid , chenodeoxycholic acid)
- Prothrombin time should be monitored because Vit . K deficiency can occur due to impaired absorption
- Treatment : cholestyramine , phototherapy ,
urodeoxycholic acid 15 mg/kg/day



Pruritus HIV infection and AIDS

- Severe pruritus is common
- AIDS patients may develop several pruritic conditions like , **severe seborrheic dermatitis , eosinophilic folliculitis**

Psychogenic pruritus

Consultation with psychiatrist is recommended



Investigation

- CBC , KFT , LFT , urine analysis , ESR , CX Ray , Hepatitis profile , F.B.S