(Dermatitis) Eczema

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Eczema(Dermatitis): Is a pattern of inflammatory response of the skin, characterized clinically by erythema, itching and vesicles.

The *term eczema* is better to be avoided because it is very annoying to the patient. so call it dermatitis.

Eczema is common all over the ward, in Iraq it is the second skin disease following skin infections

Dermatitis divided in to acute, chronic or subacute in between

Acute

- Redness and swelling, usually with ill-defined margin
- Papules, vesicles and, more rarely, large blisters
- Exudation and cracking
- Scaling

Chronic

- May show all of the above features, though it is usually less vesicular and exudative
- Lichenification, a dry leathery thickening with increased skin markings, is secondary to rubbing and scratching
- Fissures and scratch marks
- Pigmentation

Eczema also Classified according to the cause in to:

1- Exogenous

2- Endogenous.

1- Exogenous

- Irritant contact dermatitis
- Allergic contact dermatitis
- Photodermatitis
- Infective dermatitis
- Napkin dermatitis

2- Endogenous

- **Atopic dermatitis**
- **Seborrhoic dermatitis**
- **Discoid eczema**
- **Pompholyx (Deep itchy vesicls of palms & sole)**
- **Stasis dermatitis**
- **Asteatotic eczema (Dry itchy fissured legs)**
- **Neurodermatitis (Lichen simplix chronicus)**
- **Juvenile planter dermatosis**
- **Pitryriasis alba**

Complications of eczema

1- Secondary bacterial infections(Staph aureus infection)
2- Viral infection more common and encouraged by topical steroid:
   a- Wide spread herpes simplex: Eczema herpitecum
   b- Humanpapuloma virus
   c- Molloscum contagiosum
3- Depression &anxiety
4- Erythroderma(dermatitis of 90% of body)
5- Dyspigmentation(hypo hyper pigmentation)
6- Poor growth due to chronic disease and sleep distarbance

Investigations

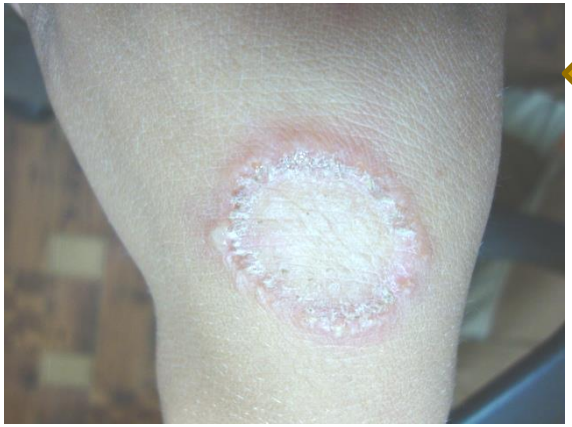
1- Patch test(allergic contact dermatitis)

2- Photopatch test

3- Prick test(a topic)

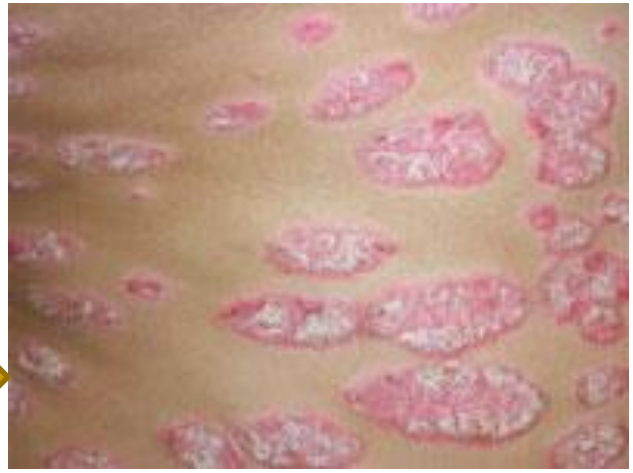
4- Scraping & direct examination for fungal infection

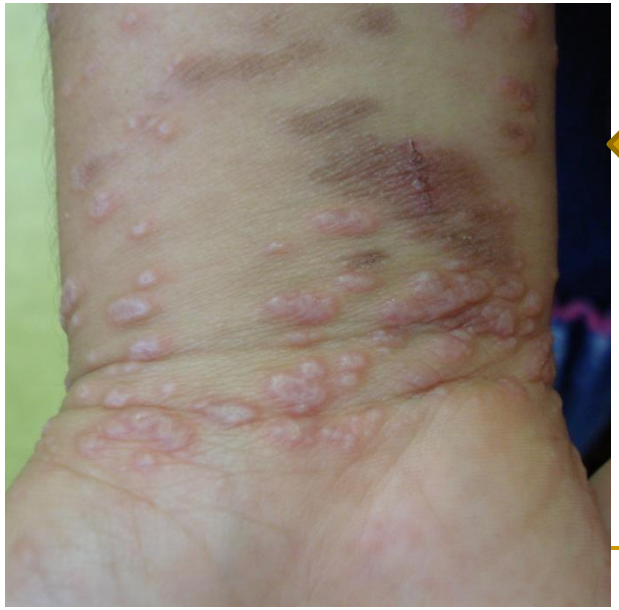
Differentional diagnosis



1-Tinea

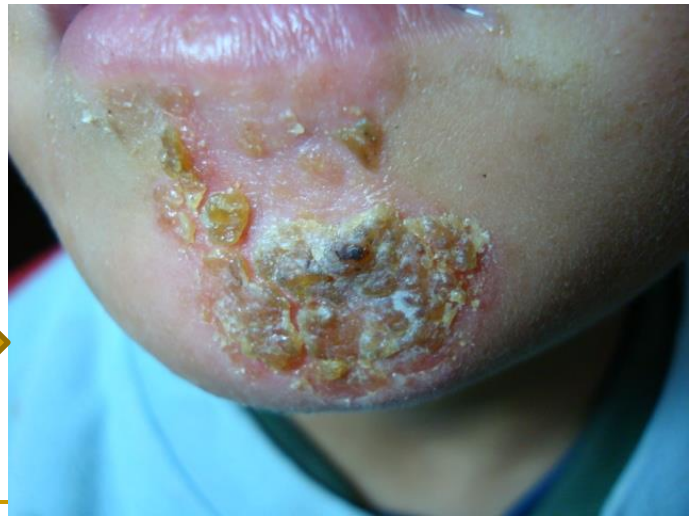
2-Psoriasis

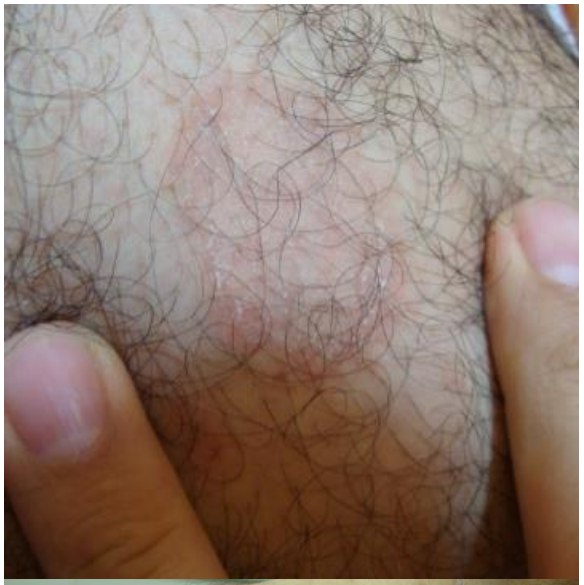


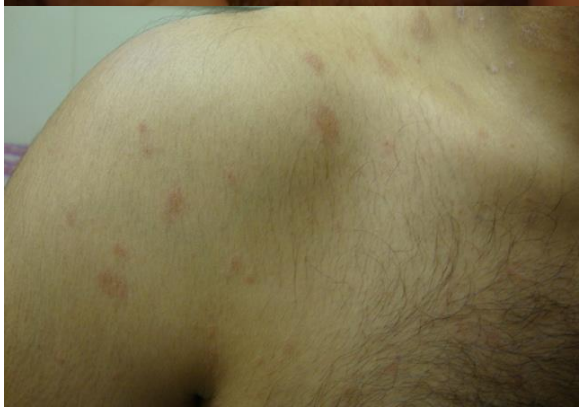


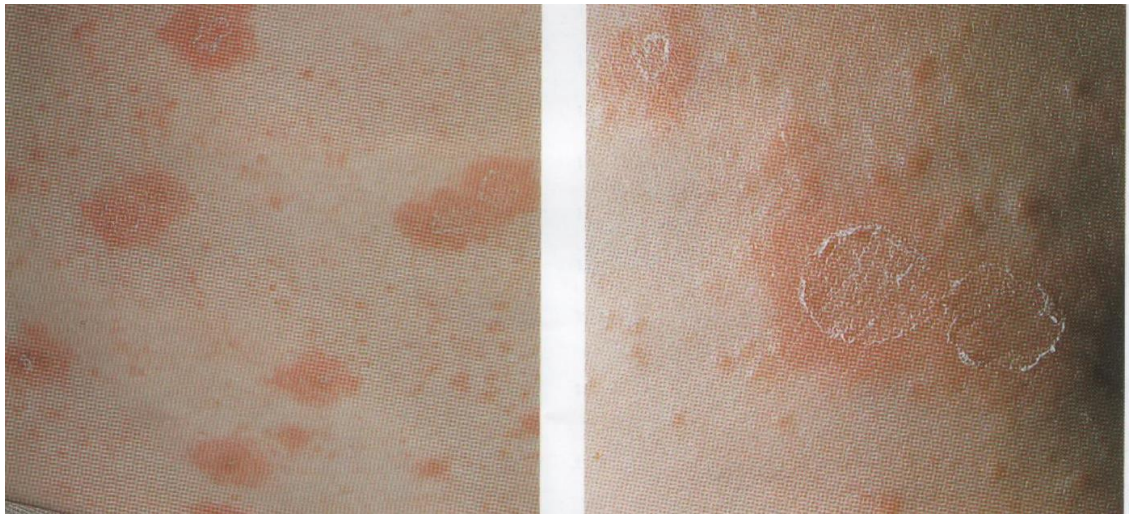
3-Lichen planus

4-Impetigo









5-Pityriasis rosea

6-Secondary syphilis

7-Drug eruption

Treatment of Acute eczema

Wet compress: make the lesion dry.

Topical steroid lotion or cream

Systemic antibiotics

Antihistamine

Systemic steroid

Treatment of chronic eczema

Topical steroid (ointment)

Antihistamine

Topical keratolytic(eg.salicylic acid, urea) for thick eczema

Systemic steroid in severe cases

Irritant contact dermatitis

Represents the cutaneous response to the physical or chemical effects

- Physical agents: i.e. lifa.
- Chemical agents: detergent, alkalis.

Clinical example: Housewife dermatitis (due to water& soap).

Allergic contact dermatitis

Represents the cutaneous response to the chemical effects, in genetically predisposed individuals.

Induced by type 4 hypersensitivity reactions

Allergic contact dermatitis: examples

Allergen	Present in
Nickel	Jewellery, jean studs, bra clips
Dichromate	Cement, leather, matches
Rubber chemicals	Clothing, shoes, tyres
Colophony	Sticking plaster, collodion
Paraphenylenediamine	Hair dye, clothing
Balsam of Peru	Perfumes, citrus fruits
Neomycin, benzocaine	Topical applications
Parabens	Preservative in cosmetics and creams
Wool alcohols	Lanolin, cosmetics, creams
Epoxy resin	Resin adhesives

	Irritant contact d	Allergic contact d
Mechanism	Non immune, Chemical or physical effect.	Type4, delayed hypersensitivity reaction
People risk	Every one	Genetically predisposed
Number of exposure	Not need sensitization	need sensitization
Onset	Gradually	Rapid if sensitize
Distribution	Ill defined border	Take the shape of contestant
Spread	Localized	Can spread
Concentration	High	Low
Agent nature	High molecular wt	Low molecular wt
Investigation	Avoidance	Patch test, avoidance
Management	Protection, decrease contestant time+ topical &systemic steroid	Complete avoidance+ topical &systemic steroid

Atopic Dermatitis

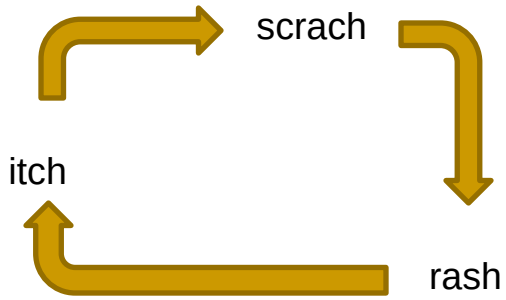
Atopic dermatitis (AD) is an acute, subacute or chronic pruritic inflammation of the epidermis and dermis, often occurring in association with a personal or family history of asthma, allergic rhinitis, or atopic dermatitis.

Definition of atopy: "no (without) place." An inherited clinical state associated with dermatitis, asthma, and allergic rhinitis.

Synonyms: "Eczema," atopic eczema, IgE dermatitis

Age: Onset in first 2 months of life, or first year in 60 % of patients

Sex: more common in males than in females



Skin Symptoms

Patients have dry skin cause pruritus so cause dermatitis.

The constant scratching leads to a vicious cycle of itch == scratch == rash == itch

Atopic Dermatitis

Exacerbating Factors

- Allergies: contact allergens, food, inhalants (history or skin tests).
- Skin dehydration by frequent bathing and hand washing.
- Emotional stress.
- Hormonal: pregnancy, menstruation, thyroid.
- Infections: Staphylococcus aureus, group A streptococcus, fungus, herpes simplex virus.
- Season: in temperate climates, usually improves in summer, flares in winter.
- Clothing: pruritus flares after taking off clothing; wool clothing or blankets directly in contact with skin.

Major clinical criteria

1- Pruritus

2- Chronic dermatitis +/- lichenification

3- Typical distribution

Face & extensors in infant,

flexors in children and adult.

4- Personal or family history of atopy

Major criteria or 2 major with minor criteria give the diagnosis

What are the minor clinical criteria of atopic dermatitis?

Course and Prognosis

Spontaneous remission during childhood is the rule with occasional recurrences during adolescence.

In most patients, the disease persists for 15 to 20 years.

Adult-onset atopic dermatitis often runs a severe course.

Complications

- *S. aureus* infection leads to extensive erosions and crusting
- Herpes simplex infection may lead to eczema herpeticum which may be life-threatening

Management

Education of the patient to avoid rubbing and scratching is most important.

Topical preparations are valuable but are useless if the patient continues to scratch and rub the plaques.

Antihistamine

Topical Tacrolimus ointment (NSAID)

Topical steroid (ointment)

Lichen Simplex Chronicus

- Lichen simplex chronicus (LSC) is a special localized form of lichenification, characterized by a circumscribed plaques.
- Lichenification is a characteristic feature.
- Lichen simplex can last for decades unless the rubbing and scratching is stopped by treatment.

Age Over 20 years

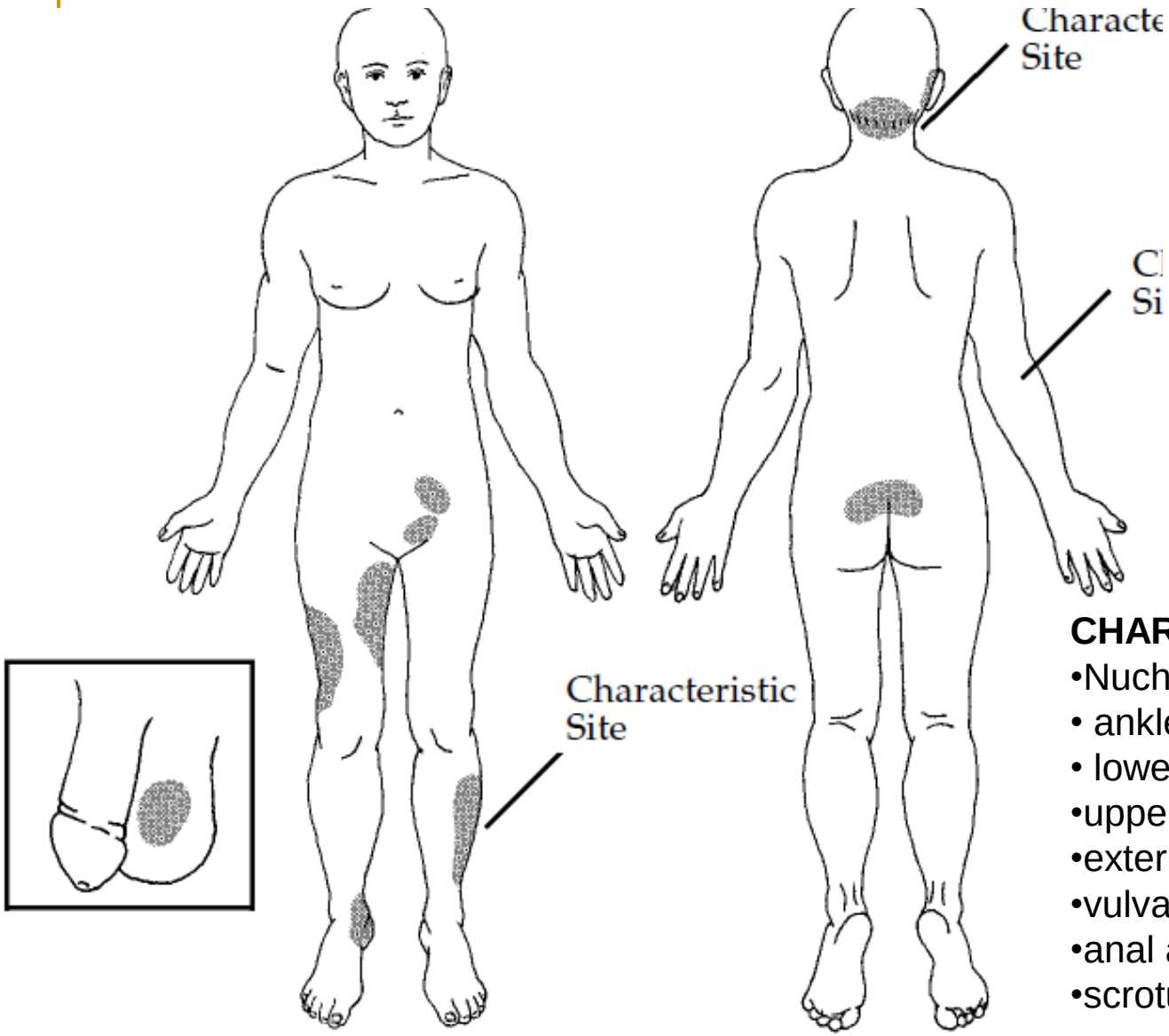
Sex More frequent in women

Race A possibly higher incidence in Asians and Native Americans

Cause: Emotional stress in some cases

Skin Symptoms

- Pruritus, often in paroxysms. The lichenified skin is like an erogenous zone
- It becomes a pleasure to scratch.
- Often the areas on the feet are rubbed at night with the heel.
- The rubbing becomes automatic and reflexive and an unconscious habit.
- Most patients with LSC give a history of itch attacks starting from minor stimuli:- putting on clothes, removing ointments, clothes rubbing the skin, and when they go to bed, the skin becomes warmer and this precipitates itching.



CHARACTERISTIC SITES

- Nuchal area (female), scalp,
- ankles,
- lower legs,
- upper thighs,
- exterior forearms,
- vulva, pubis,
- anal area,
- scrotum, and groin

Management

- **The rubbing and scratching must be stopped**. It is important to apply occlusive bandages at night to prevent rubbing and to facilitate penetration of topical corticosteroids.

- **TOPICAL VERY POTENT CORTICOSTEROID PREPARATIONS** Covered by continuous dry occlusive gauze dressings
- **INTRALESIONAL TRIAMCINOLONE** Often highly effective (3 mg/ml; if high concentrations may cause atrophy)
- **Tar Preparations** Combinations of 5% crude coal tar in zinc oxide paste plus class II corticosteroids covered by occlusive cloth dry dressings.

Seborrheic Dermatitis

Seborrheic dermatitis (SD)

Is a very common chronic dermatosis characterized by redness and scaling occurring in regions where the sebaceous glands are most active, such as the face and scalp, and in the body folds. Mild scalp SD causes flaking, (i.e., dandruff.)

Synonyms: "Cradle cap" (infants), eczematoid seborrhea, pityriasis sicca (dandruff).

Age (Bimodal age) **-**Infancy (within the first months),

-puberty, majority between 20 and 50 years or older

Sex More common in males

Incidence 2 % to 5 % of the population

Predisposing Factors genetic diathesis, HIV-infected individuals

Duration of Lesions Gradual onset

Skin Symptoms Pruritus is variable, worse during winter.

Etiology of Seborrheic Dermatitis: many factors (seborrhia is misnomer)

- Androgen hormone, Normal level
- Pityrosporm ovale(normal yeast flora)
- Physical and chemical agents may initiate this dermatitis
- Disease worse in patients with AIDS, parkinsonism and zinc deficiency

Skin Lesions

Yellowish-red, greasy scaling macules and papules.

Sticky crusts and fissures are common.

Sites (seborrheic areas)

HAIRY AREAS OF HEAD Scalp, eyebrows, eyelashes (blepharitis), beard (follicular orifices); cradle cap

FACE The flush ("butterfly") areas, behind ears, on forehead ("corona seborrheica"), nasolabial folds, eyebrows, glabella. Simulating lesions of tinea facialis.

Ears: retroauricular, meatus.

TRUNK Yellowish brown patches over the sternum; simulating lesions of pityriasis rosea or pityriasis versicolor;

BODY FOLDS Axillae, groins, anogenital area, submammary areas, umbilicus—

presents as a diffuse, exudative, sharply marginated, brightly erythematous

eruption; fissures are common.

GENITALIA Often with yellow crusts and psoriasiform lesions

Treatment

Infantil: self limiting, due to mother hormones= mild topical steroid

Adult: topical antifungal
topical steroid
selenum shampoo, ketoconazol shampoo

EYELIDS Seborrheic blepharitis is managed by gentle removal of the crusts in the morning using a baby shampoo (a cotton ball is dipped in a diluted shampoo). Following this, the lids are covered with sodium sulfacetamide, 10 % in a suspension containing 0.2 % prednisolone and 0.12 % phenylephrine.

Pityriasis Alba (PA)

Multiple hypopigmented patches with slight scales,

may be associated with mild pruritus.

(PA considered as one of minor criteria of atopic dermatitis)

Both sexes equally affected.

Age 5-15 years old

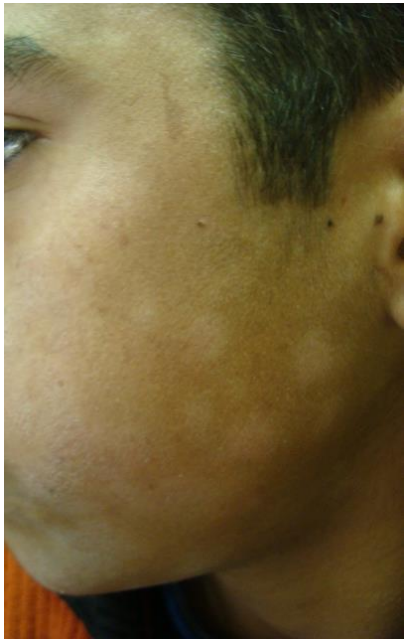
Sites: Face, neck & sometime arms, trunk

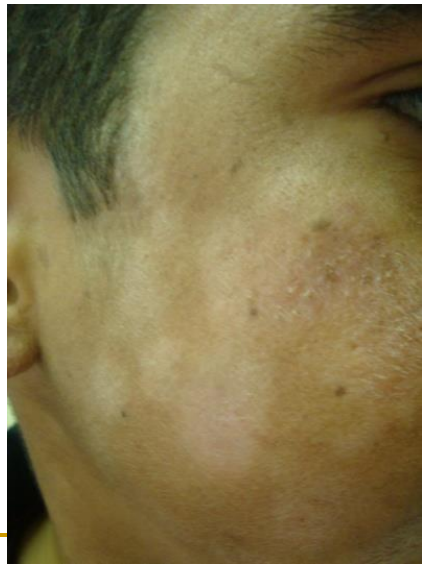
DDX: Vitiligo (no scale, woods light+v)

Pityriasis versicolor(trunk involved, direct microscopic ex.)

Treatment: Avoid frequent wash &soap,

Mild topical steroid





Napkin dermatitis

Irritant CD affect Infant & children below 2 years

Moist red glazy patches with sores involve convexes of buttocks, thigh& lower abdomin with exception of skin folds.

Complications:

1- Secondary bacterial infection with UreaSO.

2- JACHET DERMATITIS, and more erosion by urea. Even involve the folds.

3- Candidiasis = satellite papules & pustules outside macerated area.

Treatment: early zinc caster oil ointment,

in late cases: combinations of antiseptic, antifungal and hydrocortisone cream.

•**Pompholyx (Dyshidrosis)**

Acute attacks of severe itching characterized by deep vesicles of palms &/or sole end by desquamations

Associated with palmoplanter hyperhidrosis.

•**Discoid eczema:**

A subacute eczema, coin shaped red scaly moist lesion, usually both sides of body affected