Lecture 5 Dermatology

Dr khaled sobhy

Tinea Capitis (not OTC)

- Also called ringworm of the scalp
- Diagnosis depend on location and presentation

Presentation:

- 1- most common: circular patches of **dry scaly skin** with hair loss. The hair is cut short 2-3 mm above the surface. **Scalp is non inflamed**

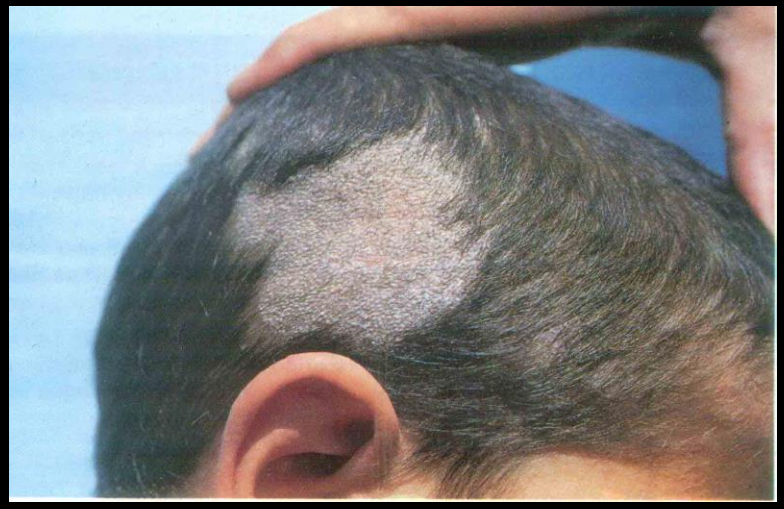
- 2- black dot ringworm: are rounded or oval **scaly** patches with hair broken at the scalp giving the characteristic black dot appearance. **Scalp is non inflamed**

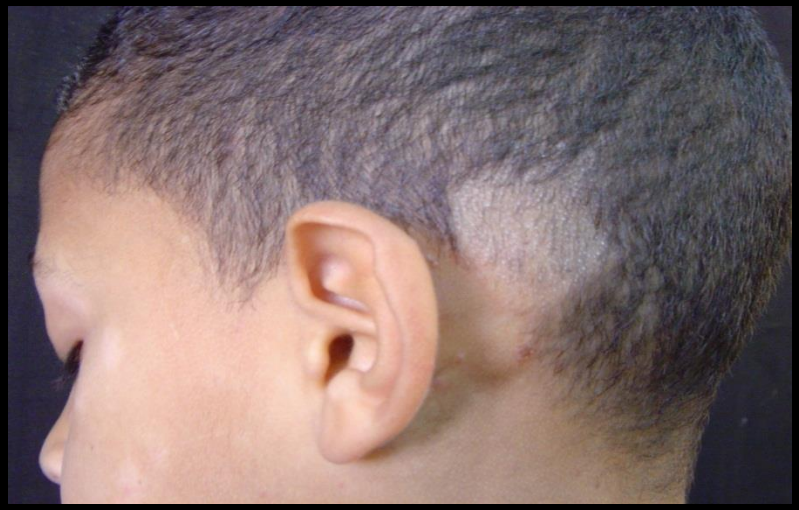
Tinea Capitis (not OTC)

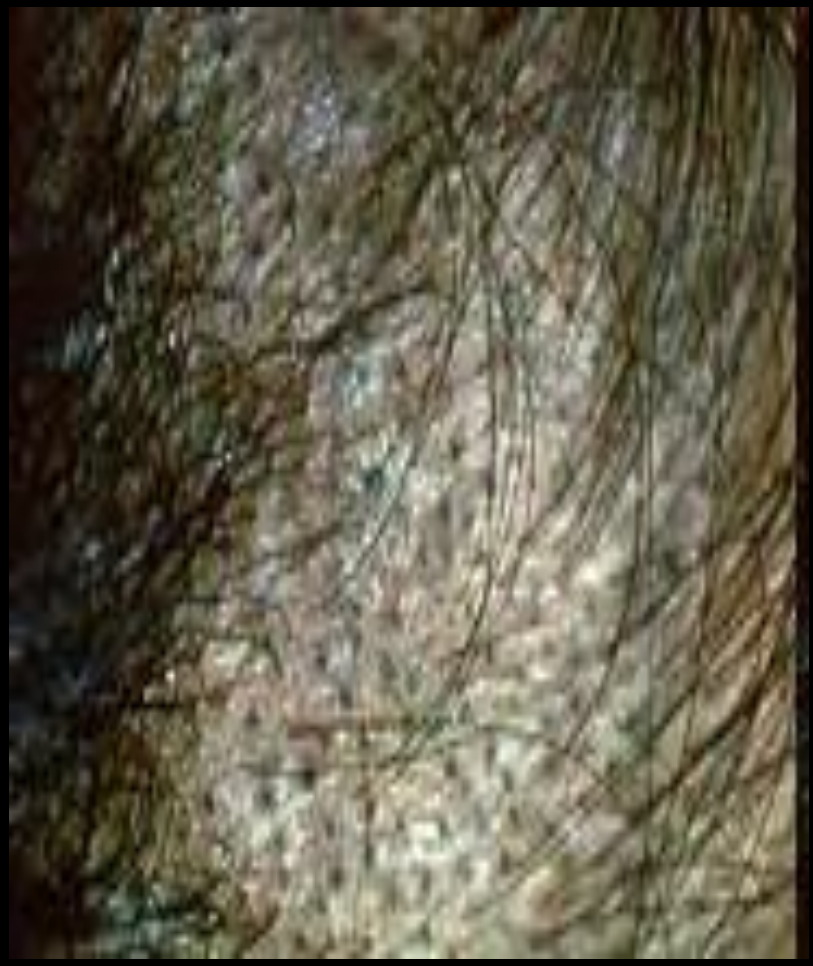
- 3- **keroin**: in which the scalp is **inflamed** producing exudates and abscess or pustules (secondary bacterial infection) progress to crust after healing leaving **scare with permanent hair loss** (hair follicle is unable to regenerate

- 4- **Favus** : **waxy appearance of scalp** due to excessive scales with cup shaped crust around several hairs which progress to involve the entire scalp with **bad odor of the scalp**

Tinea capitis

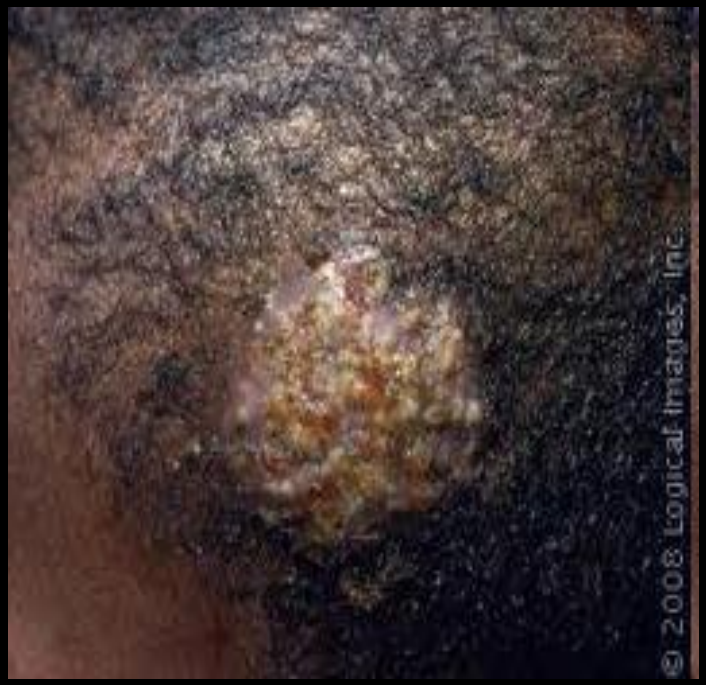


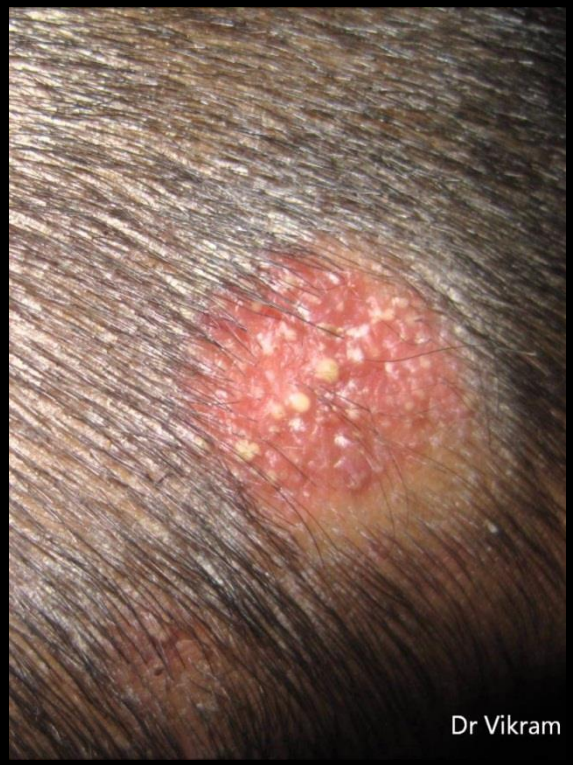




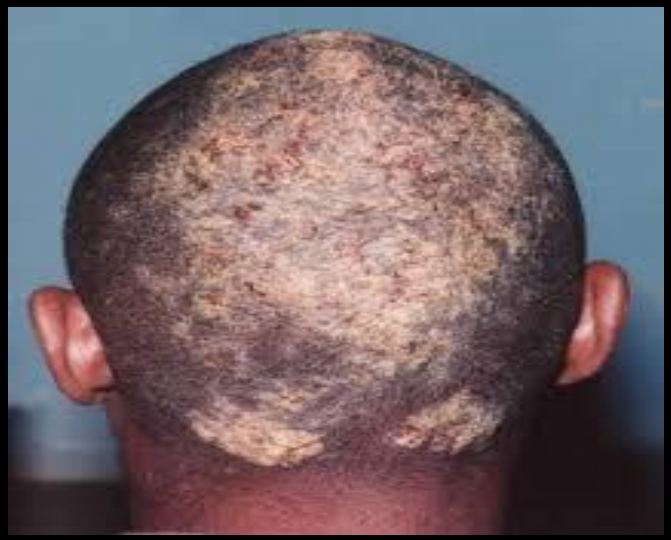
Black dot ring worm

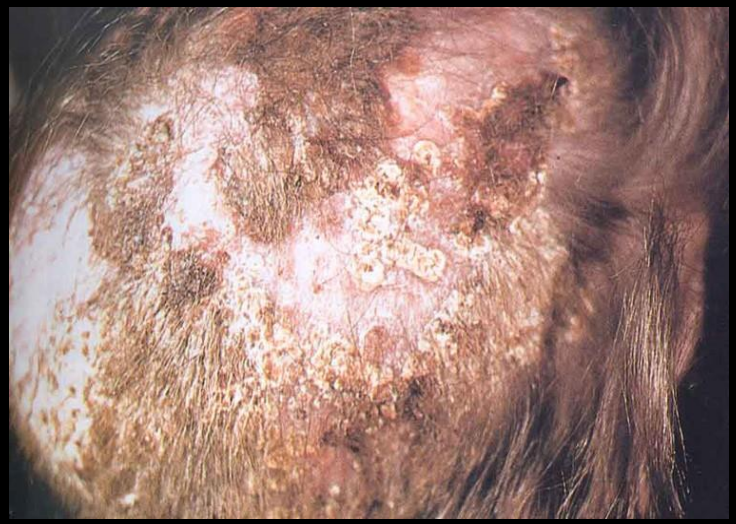
Keroin

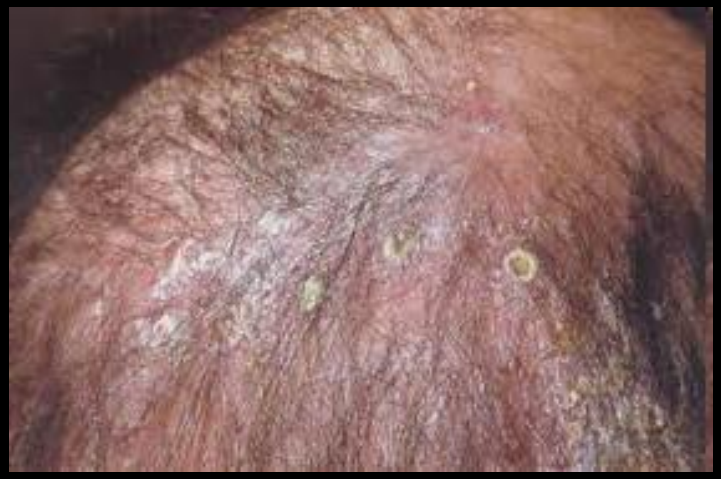


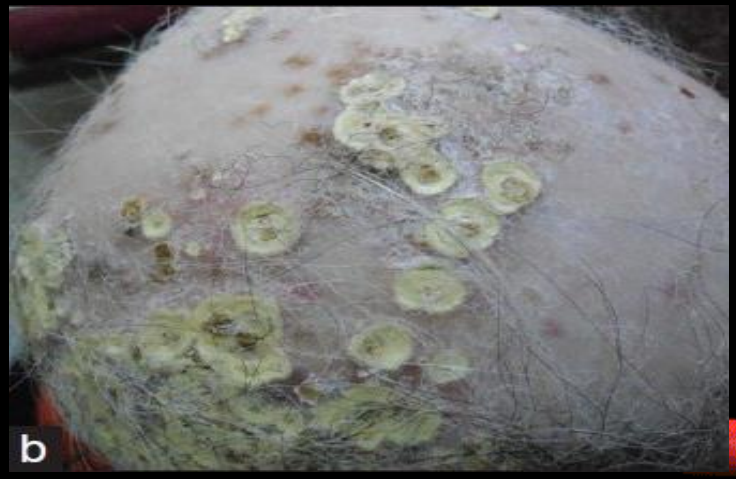


Favus









Treatment (not OTC)

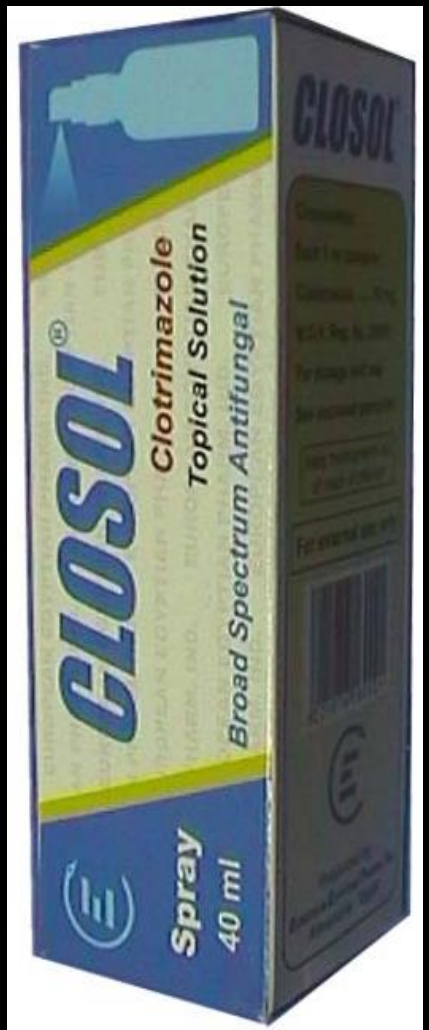
- Due to risk of permanent hair loss patients should be rapidly referred to physician

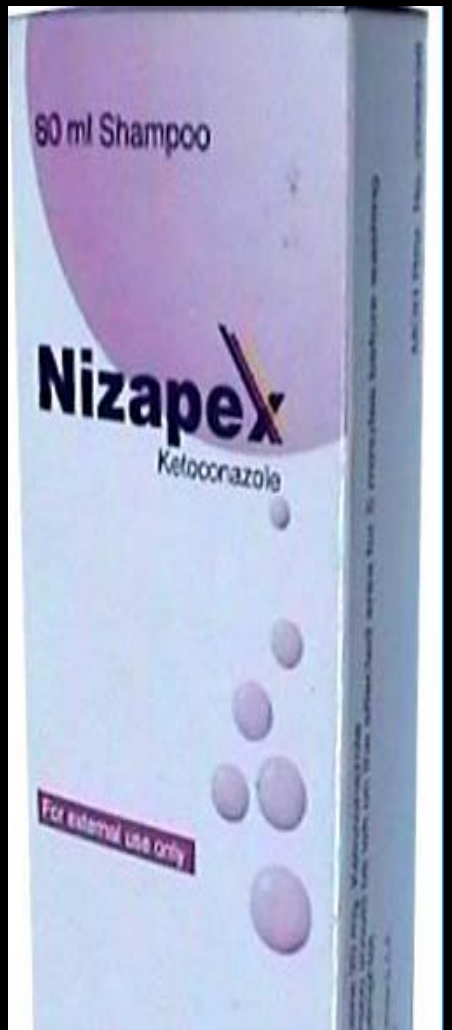
- Systemic antifungal therapy should be used:
- Grisofulvin (first choice for 8 weeks)
- Imidazole (itraconazole , fluconazole) for 8 weeks
- Terbinafine (for 4 weeks)

- Topical antifungal as shampoo should be added

Systemic Antifungal

Topical treatment





Candidal Infections

- It is caused by yeast-like fungus (Candida albicans)

Clinical forms:

Candidal paronychia, Oral candidal thrush, Candidal intertrigo, and Candidal vulvovaginitis.

Treatment of Canadidal infection

-**Nystatin topically**

-Topical or systemic imidazoles

-Gentian violet 1-2%

Most candidal infections resolve without further problems yeast infections usually clear in **1-2 weeks**.

Candidal vulvovaginitis

Vaginal yeast infection, also known as vaginal thrush. Vaginal yeast infections are due to excessive growth of *Candida*. These yeast are normally present in the vagina in small numbers

Presentation:

Vulvalar itching, vulval soreness and irritation, **pain or discomfort during sexual intercourse, pain or discomfort during urination (dysuria)** and vaginal discharge, which is **usually odourless**. This can be **thick white, like cottage cheese.** erythema (redness) of the vagina and vulva, vaginal fissuring (cracked skin), edema (swelling from a build-up of fluid.

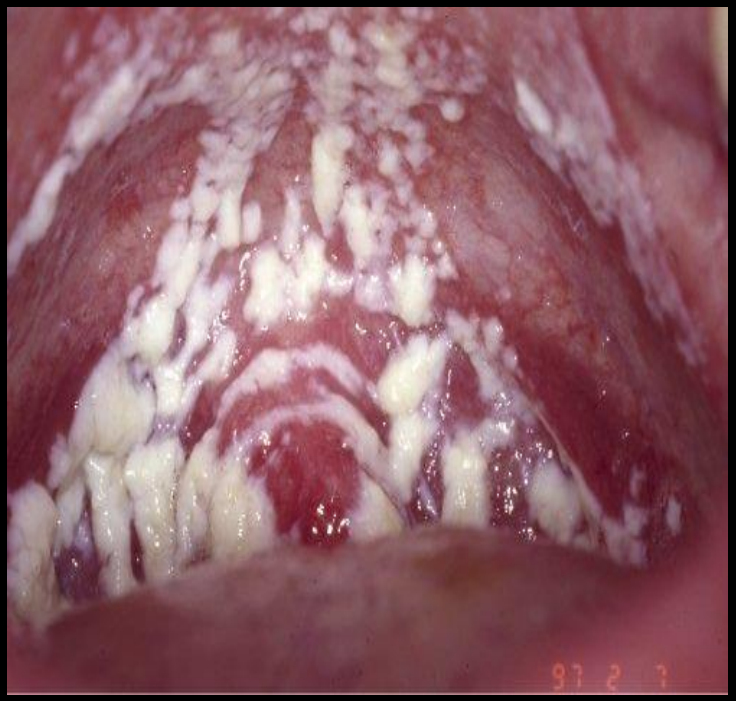
Candidal vulvovaginitis

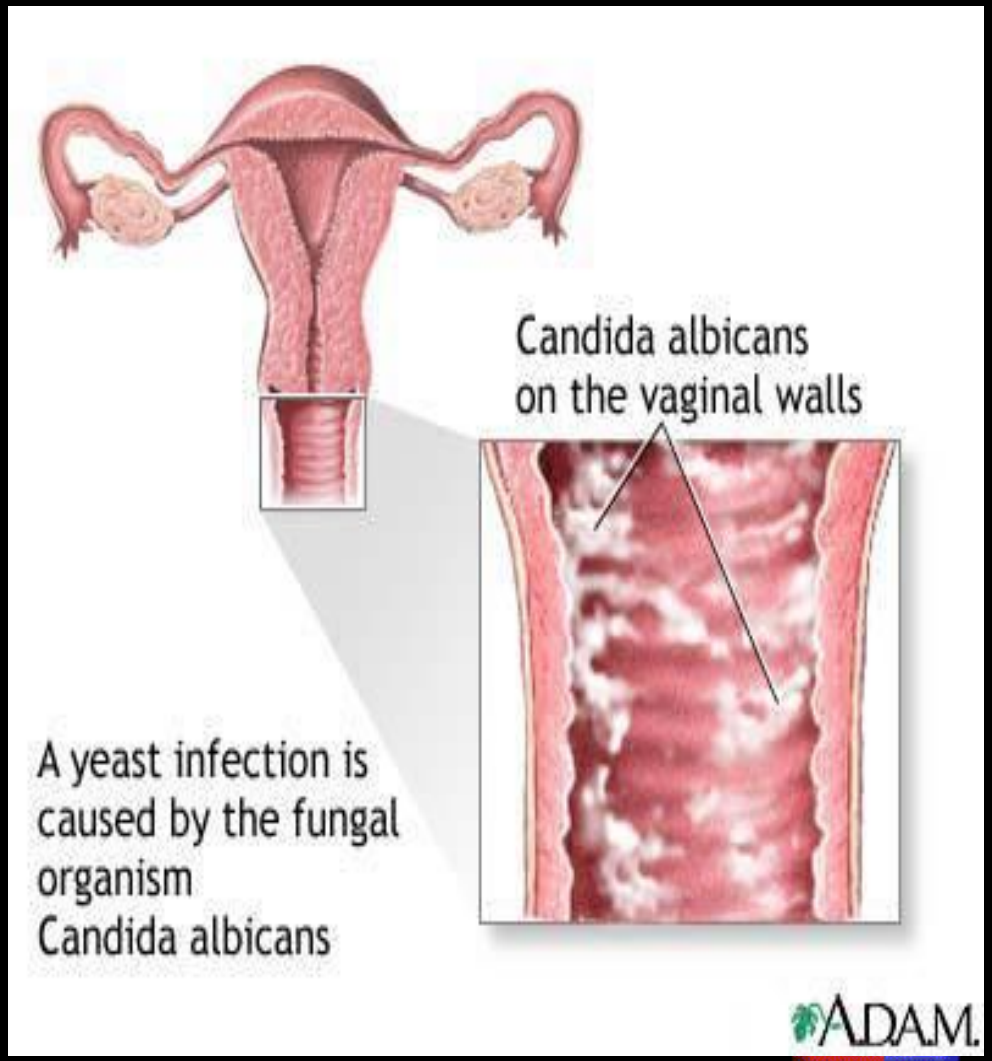
Symptoms often **worsen just before a woman's period**

Risk factors include taking antibiotics, pregnancy, and diabetes. Tight clothing.

Diagnosis is by testing a sample of vaginal discharge. The presence of yeast is typically diagnosed by **vaginal wet mount** microscopy for pseudohyphae of Candida albicans

Candidal vulvovaginitis





Treatment (OTC):

Intravaginal agents (douch, creams, vaginal tablets, suppositories):

Clotrimazole (canesten ® vaginal tab(6 Tab, 1 Tab)

Miconazole (Gynozole ® supp. or vag cream)

Ecoconazole (Gynoryl ® vag. Cream or Tab)

Tioconazole (Gynotrosyde ® vag cream or Tab)

Nystatin (nystatin ® vag tab)

Combination:

Nystatin + metronidazole (Amrizole N ® vag supp)

Nystatin + miconazole (Monicure Plus ® vag supp)

Miconazole+ nystatin +neomycin+ hydrocort. (Monicure NH ® supp

Treatment (OTC):

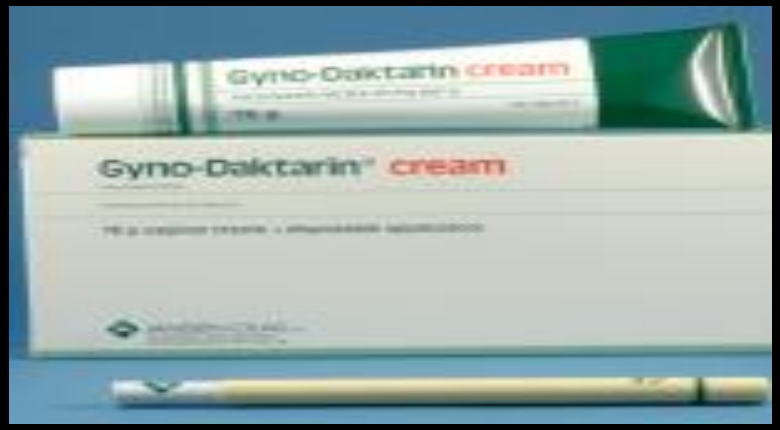
Oral Agent: fluconazole as a single dose may be added (not for pregnant)

Candidal vulvovaginitis in **pregnancy** should be treated with intravaginal clotrimazole or miconazole for at least 7 days.

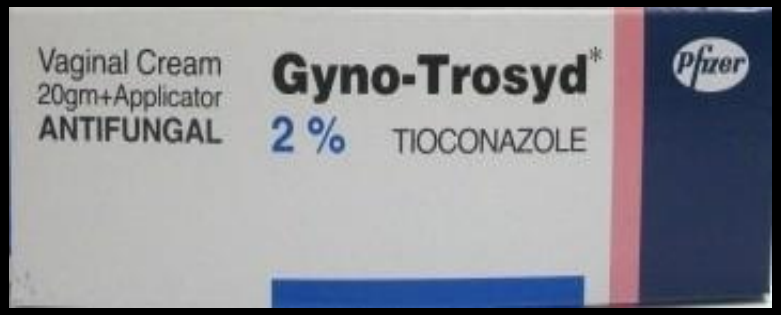
The topically applied imidazole drugs are more effective than nystatin

Prevention:

Wearing **cotton underwear and loose fitting clothing** is often recommended as a preventative measure.



Intravaginal antifungal



Intravaginal combination

How to Apply Vaginal Cream

1. Take the cap off the tube of medicine and screw on the applicator.

2. Squeeze the medicine into the applicator slowly until the plunger reaches the prescribed dose measurement. Remove the applicator from the tube of medicine. Put the cap back on the tube.

3. Lie on your back with your knees bent. Hold the applicator in one hand.

4. Put the applicator into your vagina (like a tampon) as far as you can.

5. Slowly press the plunger until it stops. Remove the applicator. Rinse the applicator.

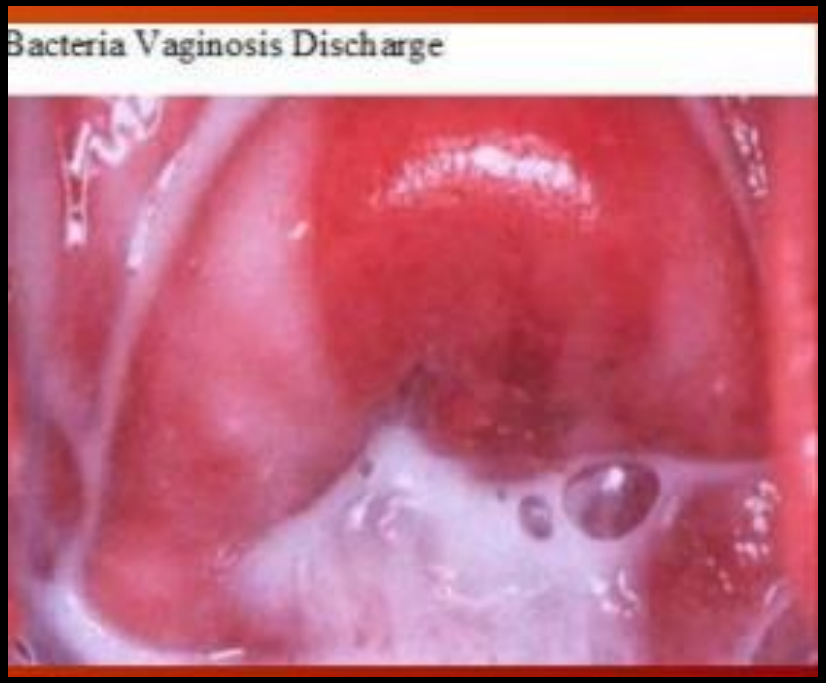
Differential diagnosis

1-Bacterial vaginitis by *Gardnerella* bacteria usually causes a discharge with **a fish-like odor**. The discharge is usually **white or gray in color**. It is associated with itching and irritation, but **not pain during intercourse. Diagnosis confirmed by wet mount test.**

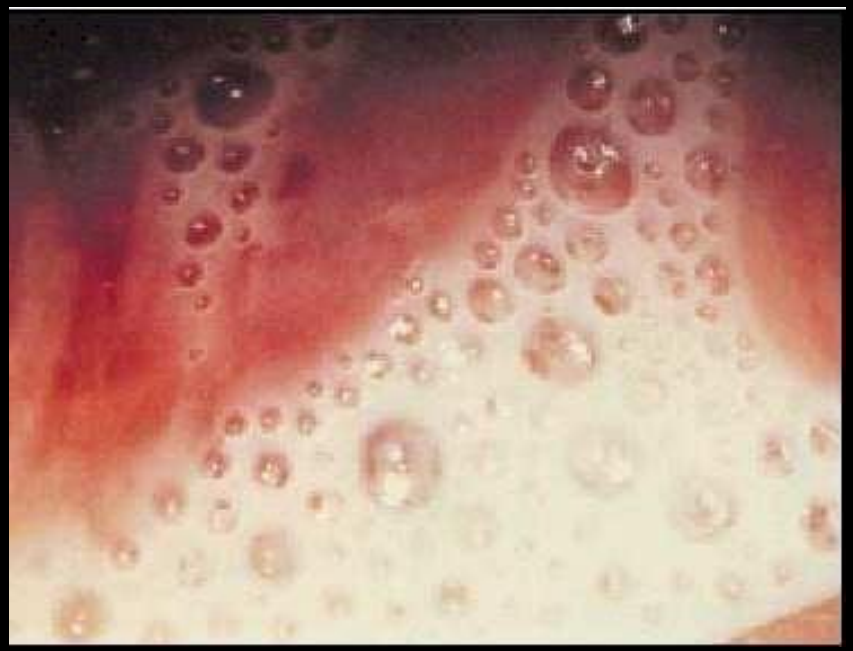
Treated by clindamycin (Vagclind® vag cream).

2- Trichomonas vaginosis by an anaerobic, flagellated protozoan the causative agent of trichomoniasis. It Can cause a **Frothy profuse** discharge with a **fish-like odor**, **pain upon urination, painful intercourse**, and inflammation of the external genitals. **Diagnosis confirmed by wet mount test.**

Treated by metronidazole (Amrizole vag. Supp)



Bacterial vaginosis



Trichomonas vaginosis


Dermatitis

Dermatitis (eczema)

- Inflammatory reaction in the skin which provoked by external or internal factors i.e the skin protects itself from allergenic or irritant substances.

Clinical picture

In all stages it is **pruritic**.

***Acute stage: "sudden"**erythema, edema and vesiculation.

***Subacute stage:** papulovesicular, mild erythema, and scaling.

***Chronic stage**: "slowly developed" lichenification or oozing.

Types:

Exogenous: Contact dermatitis

Endogenous: Atopic eczema AD "the most common type of eczema" **and** Seborrheic dermatitis

Contact dermatitis (Contact eczema)

It is skin irritation or inflammation due contact with substances which may be **allergic or irritant**

The reaction can be *acute* (sudden), within minutes to hours, or *chronic*, which comes on slowly (such as the reaction to the nickel in a watchhand).

It is the most common **occupational disorder.**

Diagnosis depend on **linking the cause (from history of substance contact) with the location of the lesion**. Contact dermatitis have many presentations so presentation is not characteristic in diagnosis

Presentation

Pruritis is the common feature but the lesion may be:

-Rash (crops of small solid lesion)

-Vesicle and oozing

-Erythema and scales

-Chronic skin thickness with redness

-Wheels (urticaria)

The common sensitizers

-Plastic, rubbers e.g watch straps, metals….

-Cements

- Nickel (in jewellery)

- Hair dye and shampoo.

-Topical creams (creams for dry skin)

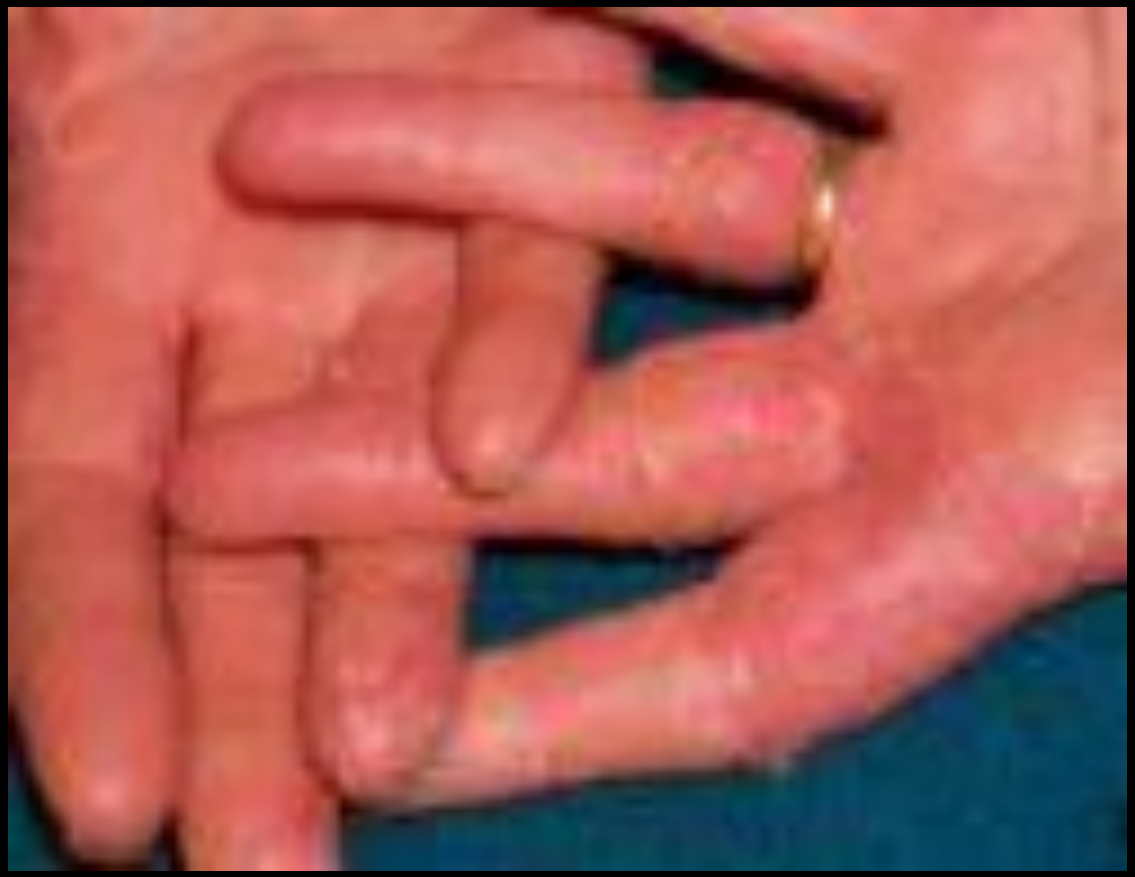
- acids and alkalis

- detergents or soaps (housewife's dermatitis)

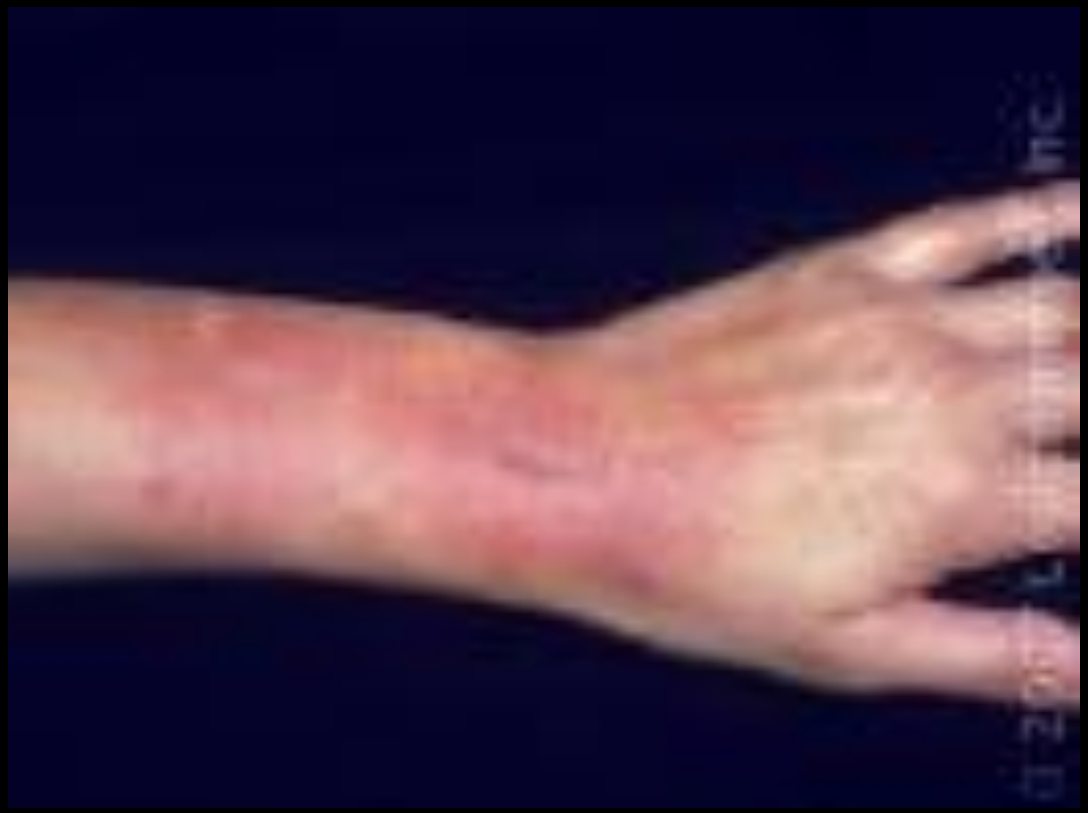
- sprays

- Oils and solvents

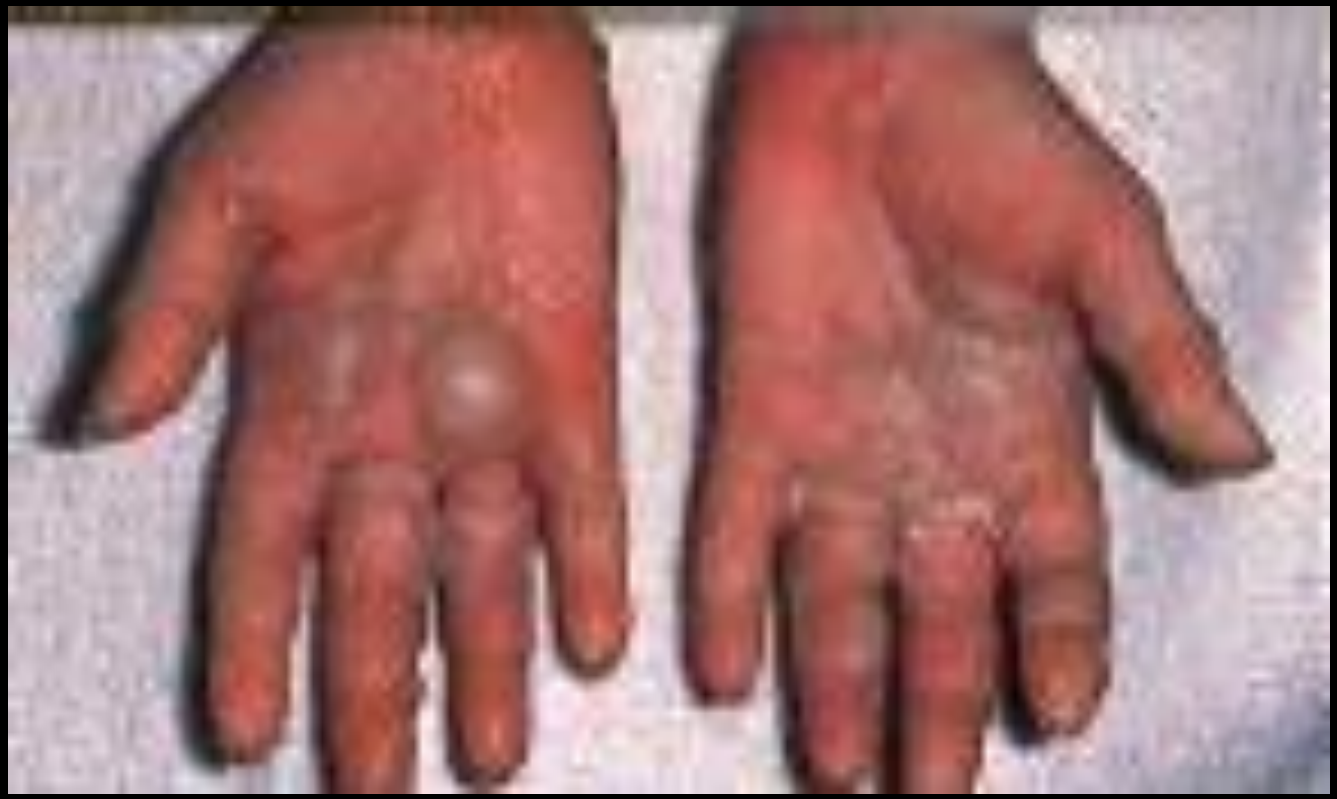
Contact dermatitis



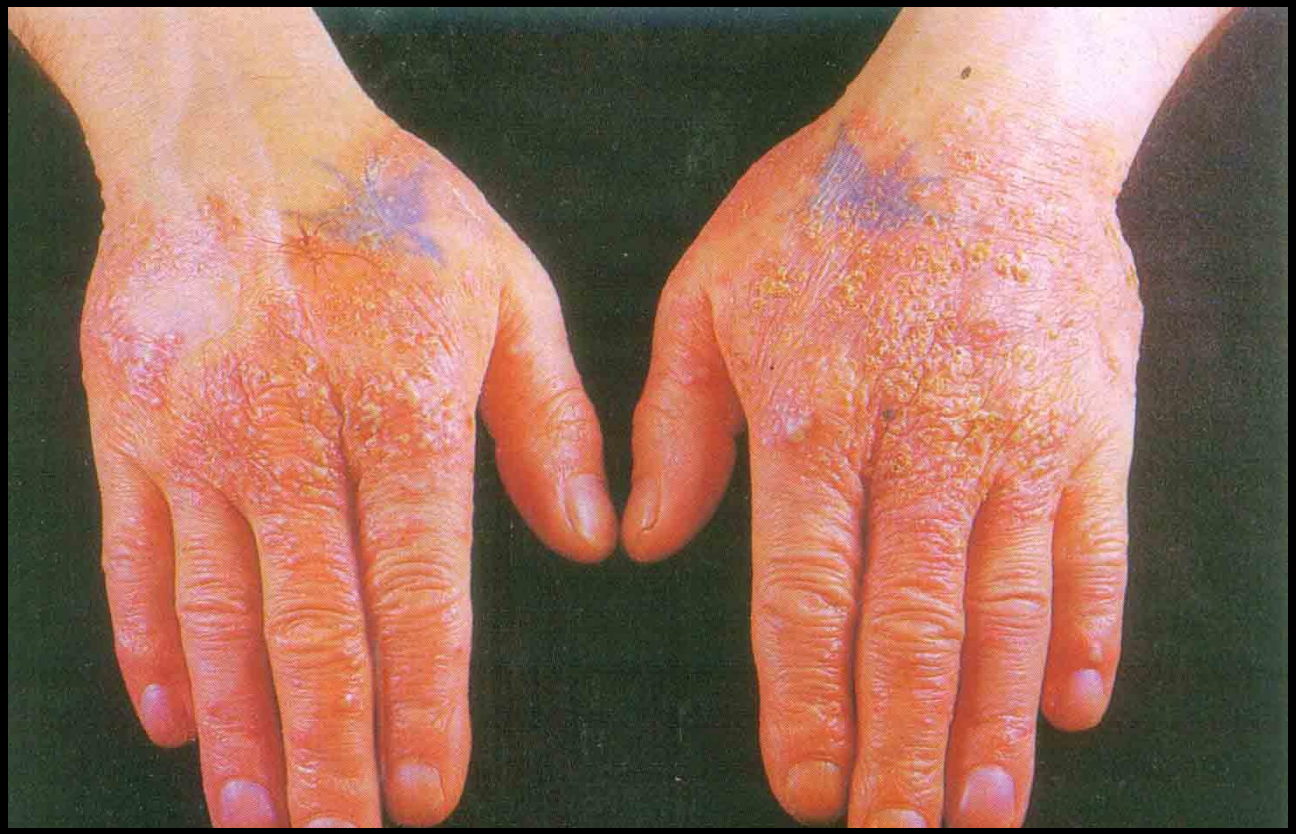
Contact dermatitis



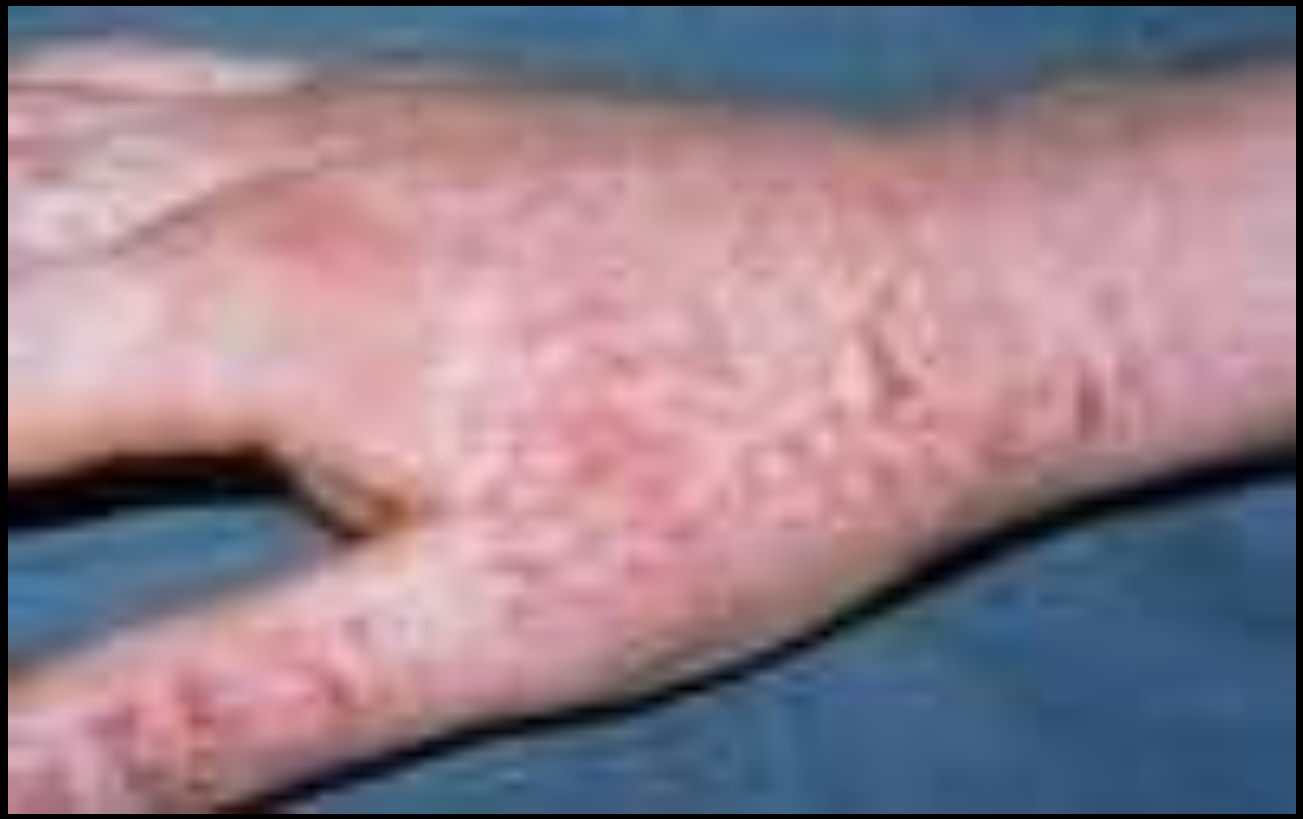
Contact dermatitis



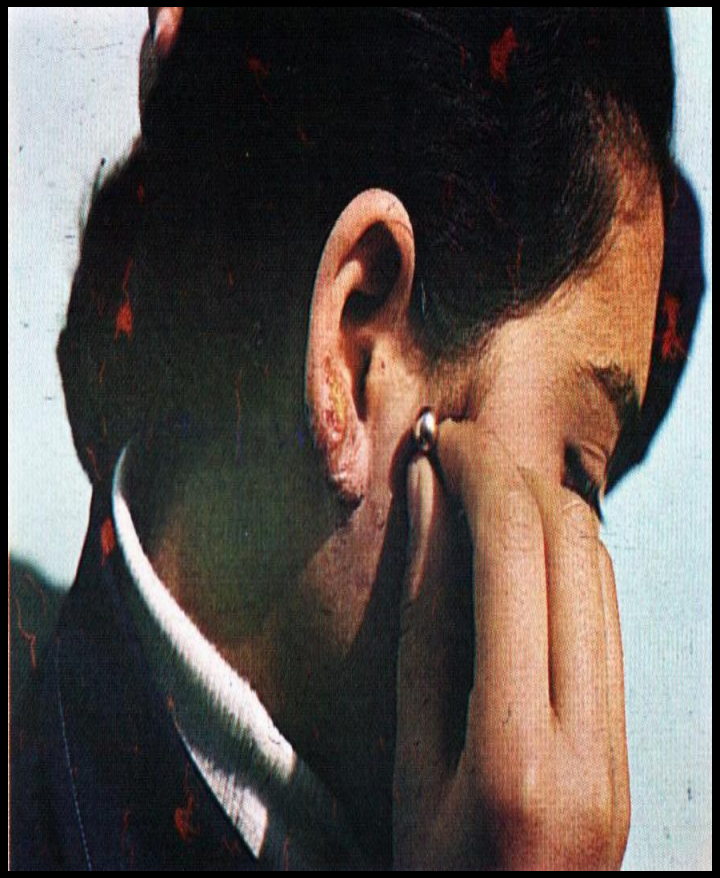
Contact dermatitis

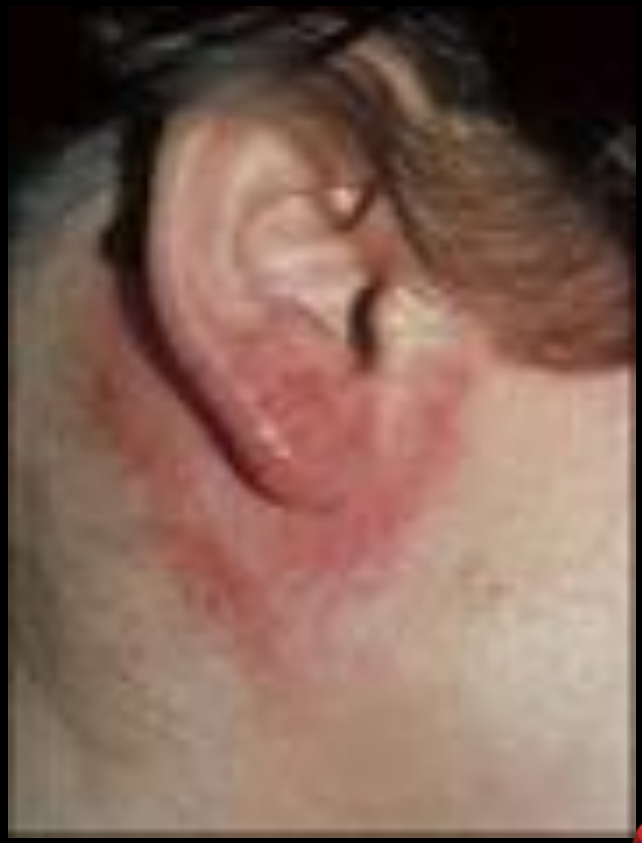


Contact dermatitis

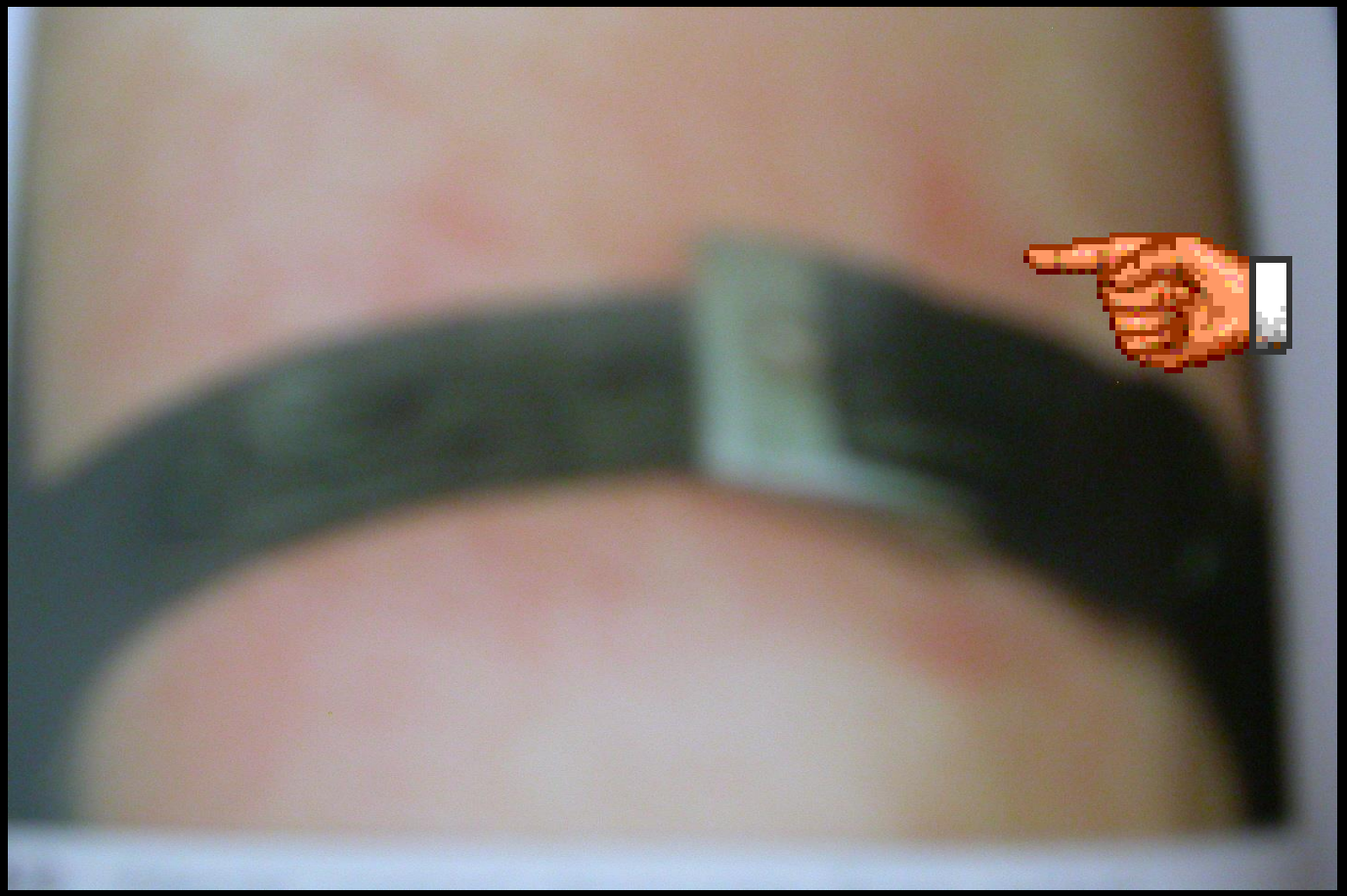


Contact dermatitis





Contact dermatitis



Treatment (OTC)

OTC for small areas and mild rashes or skin thickness, or erythema

1- topical corticosteroids:
Betamethasone valerate(Betaderm)®
Mometasone (Momenta) ®

2- **Zinc oxide or panthinol (emollient and barrier) or potassium permengnate 1/10000 solution**

3-oral antihistaminic (to reduce irritation)

NB: Separate between the two creams by 30 minutes
Duration of therapy is 7 days unless contact physician

Prevention

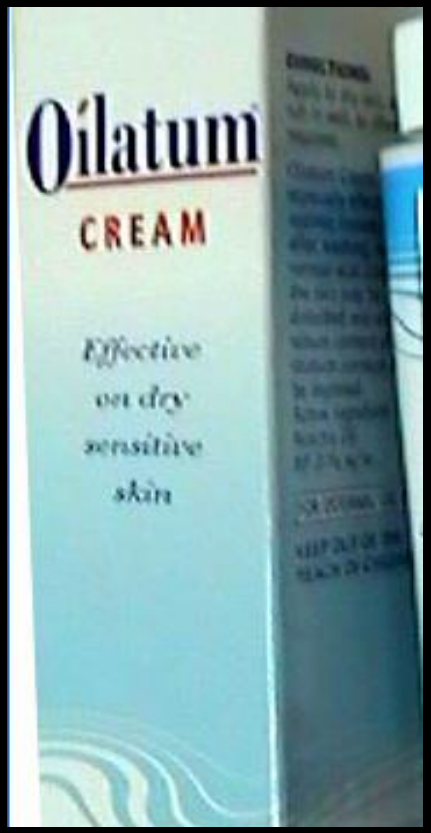
- avoid exposure to causative agents

-avoid scratching to avoid fissure and skin thickness and secondary bacterial infection

-use barrier products: calamine, zinc oxide

- Wear Gloves before dealing with causative agents

Contact dermatitis treatment



Topical Corticosteroid

Order of potency:

Class 1: Ultrahigh potency

-Clobetasol propionate (Dermovate)

-Betamethasone dipropionate (Betnovate, Diprosone)

Class 2: high

Mometasone furoate (Elocon)

Desoximetasone (Topicort)

Order of potency

Calss 3: intermediate (medium)

-Betamethasone valerate (Betaderm)

Fluticasone propionate (Cutivate)

Aclometasone dipropionate (Perderm)

Prednicarbate (Dermatop)

Class 4: low potency topical steroids

Hydrocortisone (hydrocortisone)

Dexamethasone

Methylprednisolone (tetracort)

General Rules of Use Based on Location

Potency	Sites
Low	Babies' skin, face, genital skin, skin folds
Intermediate	Similar to "Low," and most sites of body
High	Scalp; thick or chronic skin lesions
Ultra-high	Elbows, hyperkeratotic dermatoses, knees, palms, soles

Ultra potent corticosteroid

potent corticosteroid

Medium corticosteroid

Low potency corticosteroid

Diaper rash (Napkin Dermatitis)

- skin inflammation in area covered by diaper

-Special type of contact dermatitis due to contact with urine and feaces

-Etiology: bacteria in napkin area metabolize urine producing NH3 and increase PH of faces which activate proteases and lipases to break down skin leading to dermatitis

-If remain more than 3 days candidal growth may occur

Precipitating factors

Diarrhea

antibiotic use

reuse of diaper (cloth diaper)

Improper diaper covering

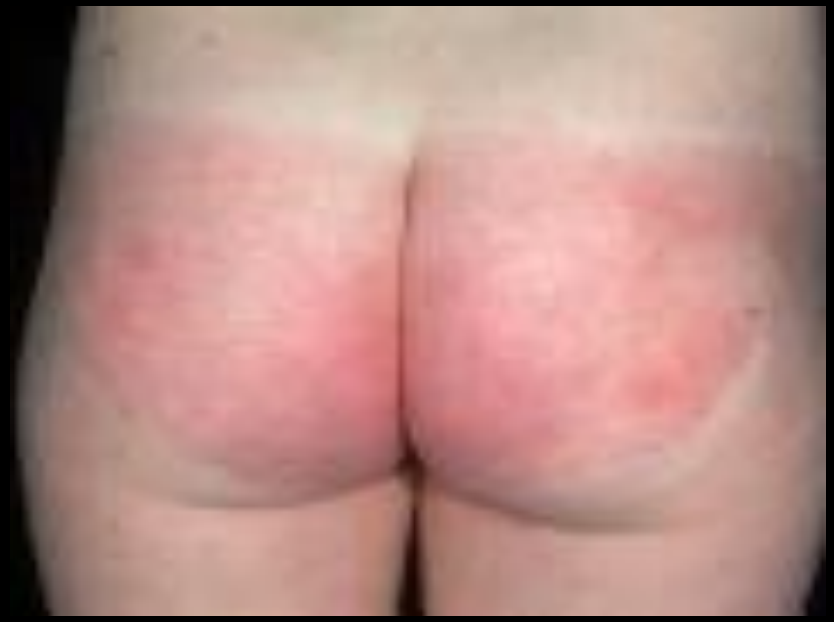
Diagnosis

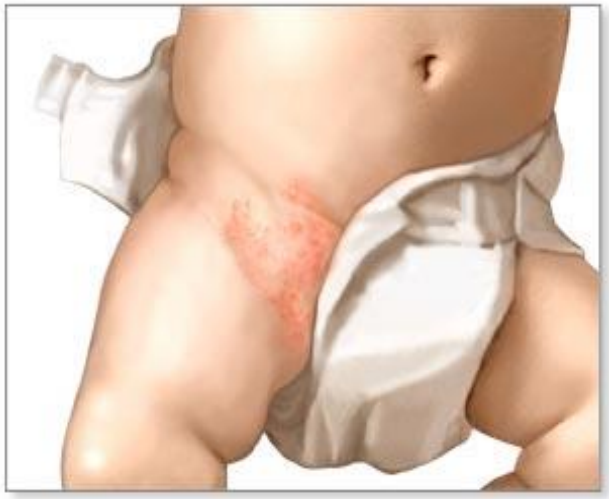
Depend on age, location and presentation:

Occur at age below 1.5 year and in the diaper area and appear as **shiny erythematous patch with no cry or discomfort and with no scale**

but later may **cry on changing diaper** or if candidal invasion occur (the lesion become deep red, intense cry, scales, vesicular satellite distribution) candida can be confirmed by making KOH test for fungi

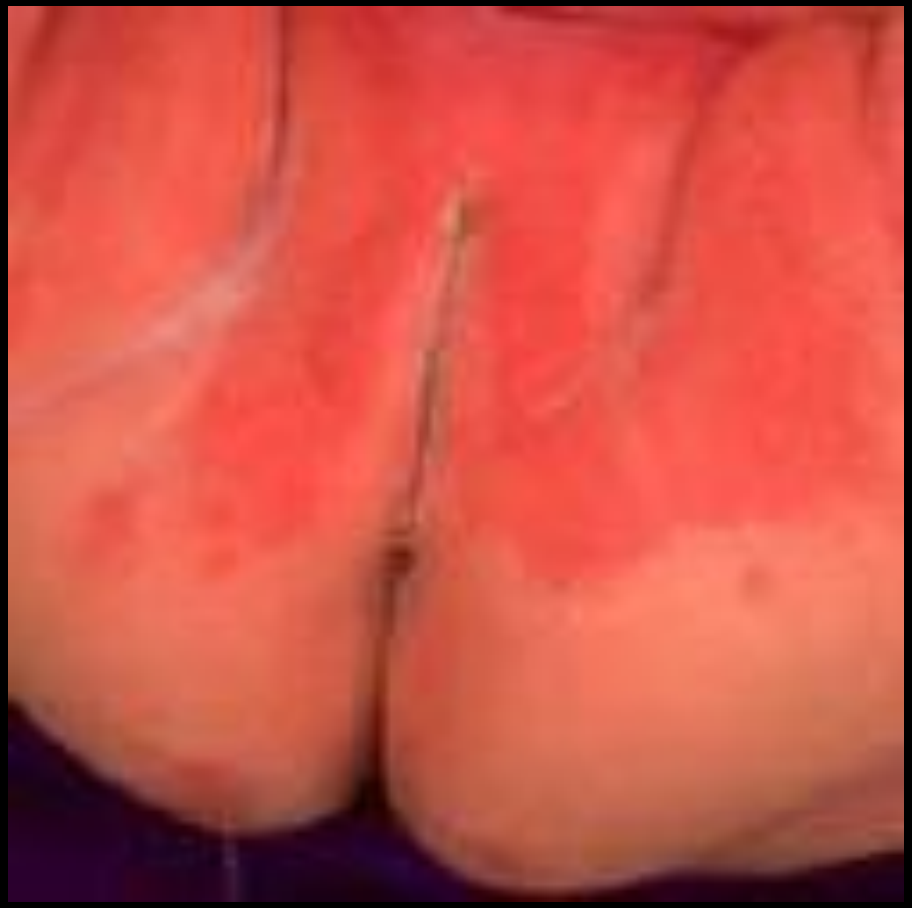
Diaper rash



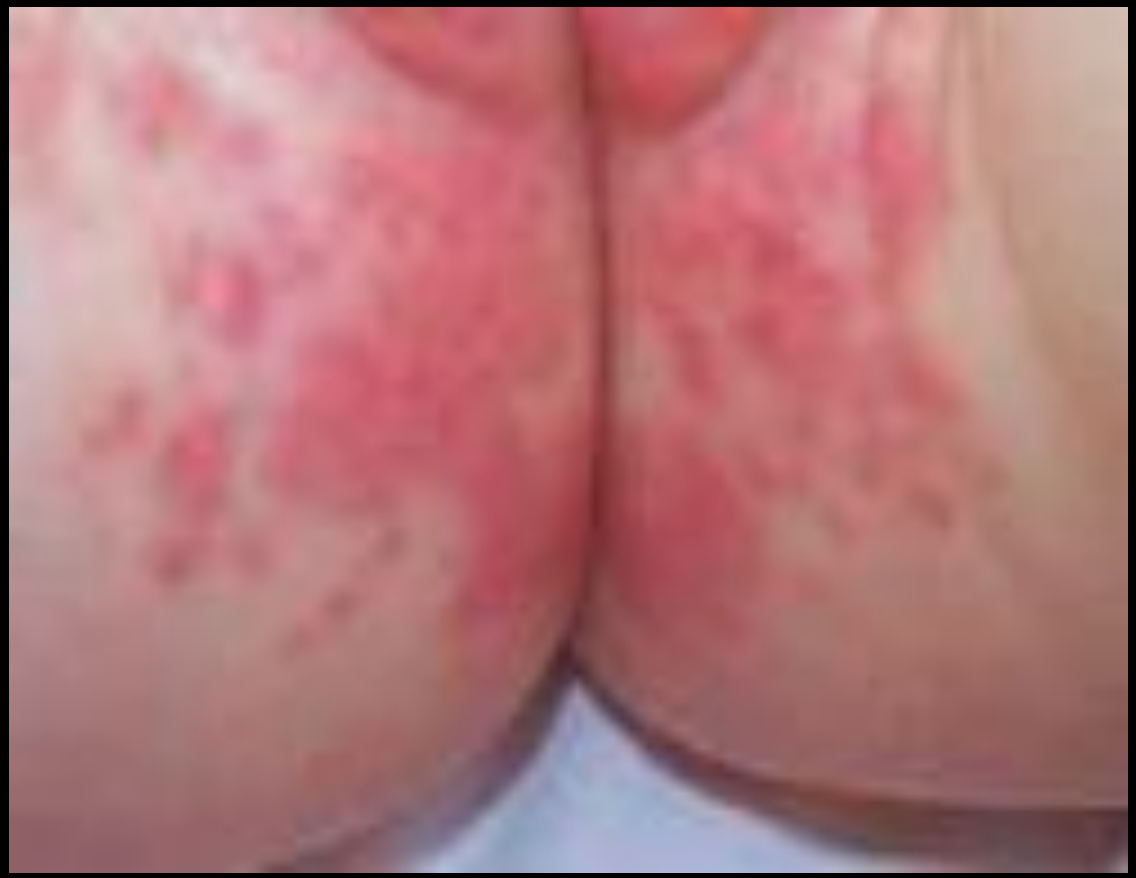


Diaper rash

Diaper rash



Diaper rash



Treatment (OTC)

1-Skin protection:

a- barrier and emolient: Zn oxide(Zincolive®), calamine, dimethicone, panthenol

b- miniral oil: Oliatum (Jonson baby oil® or Oliatum®)

This mineral oil coat the skin with oil which has emolient action

c- Koalin and talc: (Jonson talc powder ®) adsorb fluids in napkin

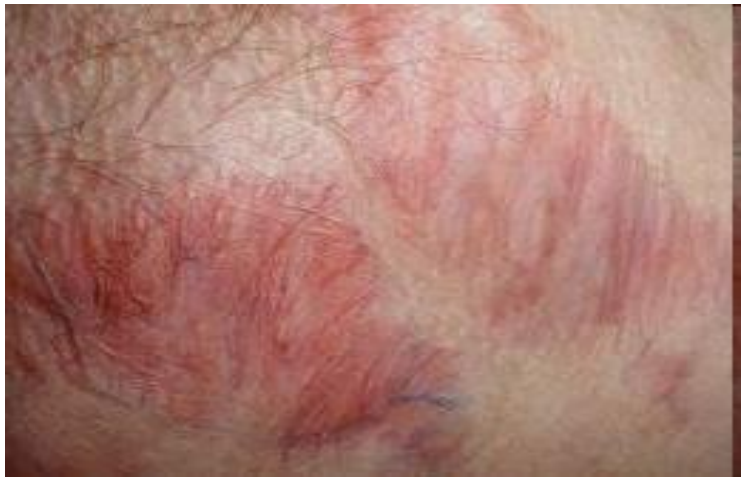
2- antifungal is used if complicated with candidal infection

Duration of treatment for 7 days unless contact physician

Remarks:

Talc Powders should be away from face to avoid pneumonia from infant inhalation

topical Corticosteroids should not be used for infant to avoid **steria** on skin and risk of systemic absorption



Prevention

-clean and dry skin as soon as soiling occur

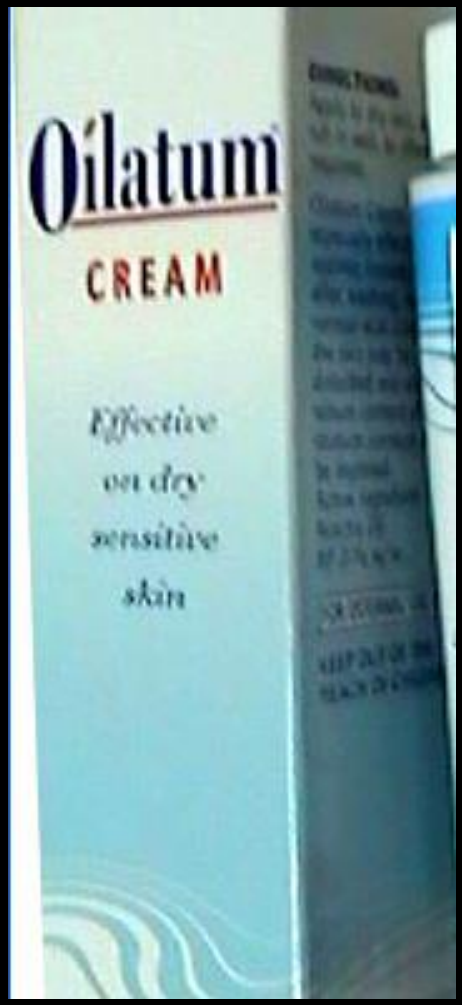
-use protecting agent as prophylaxis to reduce irritation and recurrence (talc powder)

-Use medicated soap for infant (contain no Na OH)

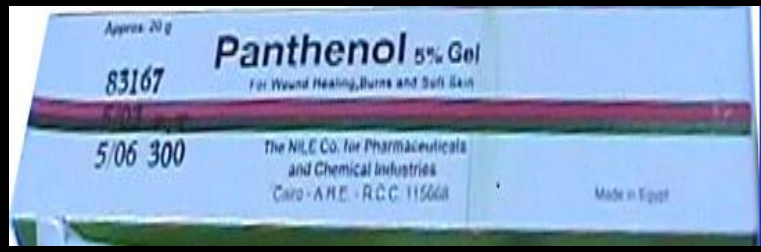
-Good inspection for skin in the diaper area

-Use disposable diaper and avoid reuse of diaper

Diaper rash treatment



Diaper rash treatment



2. Urticaria

Hypersensitivity reaction resulting from a release of *histamine* in response to **allergic substance or irritant substance (poison Ivy)** (histamine release not due to allergic reaction or Ig involvement)

Angio-oedema:

This is a serious form of urticaria in which the face, especially the lips and skin around the eyes, suddenly swells. It can be serious if the throat swells. You should contact your doctor immediately if this develops

2. Urticaria

Precipitating factor include (food, stress, environment, drugs, clothes) :

Insect bite (bee)

drugs (ex: ampicillin, sulfa drugs, glimepride)

clothes (wool)

chemical exposure

foods (milk, egg, mango, chocolate, strawberry)

cold, hot exposure

dermographism (reaction to skin scratch physical urticaria).

Tension and stress usually make urticaria worse

Diagnosis

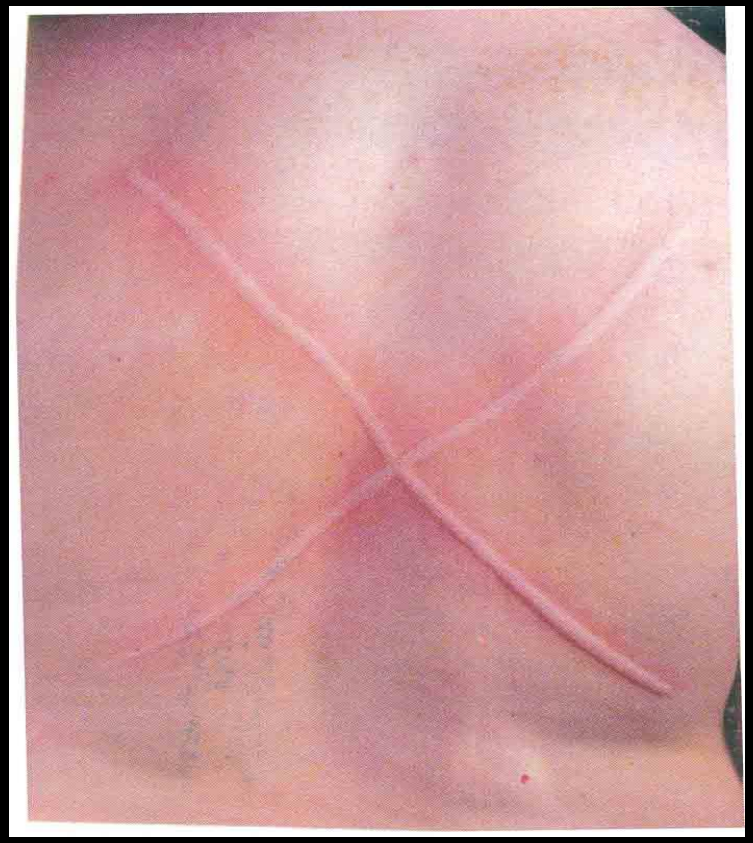
-Depend only on presentation and precipitating factor:

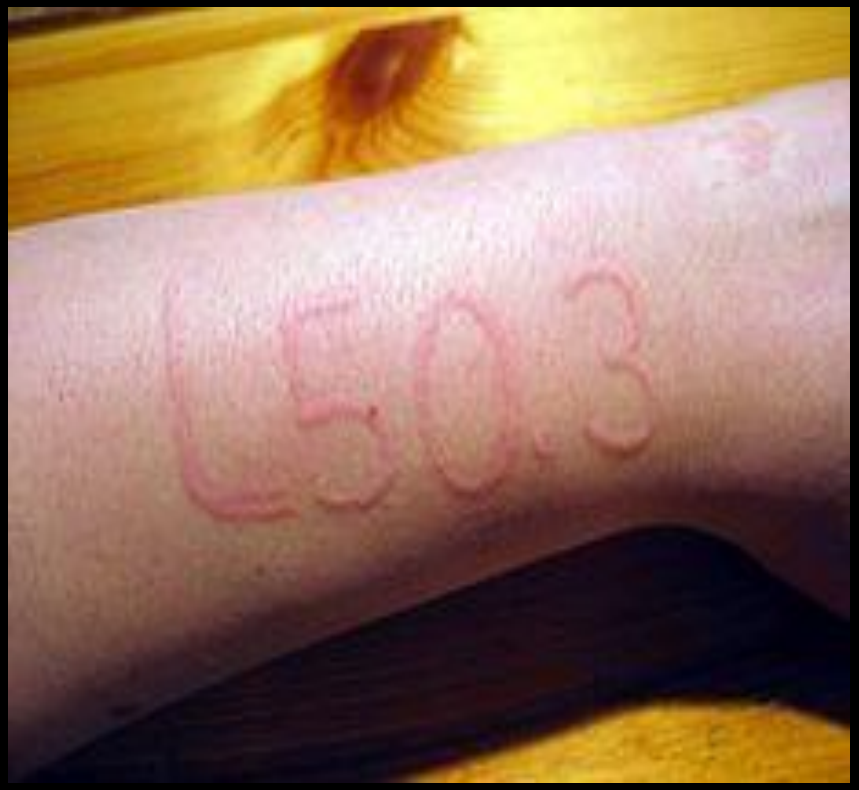
-location is not characteristic as can occur in any part of the body specially covered areas (trunk and extremities)

-Appear as **wheels (red edematous slightly elevated skin) with sever itching. The lesion appear suddenly and disappear without scar with in 24 hr**

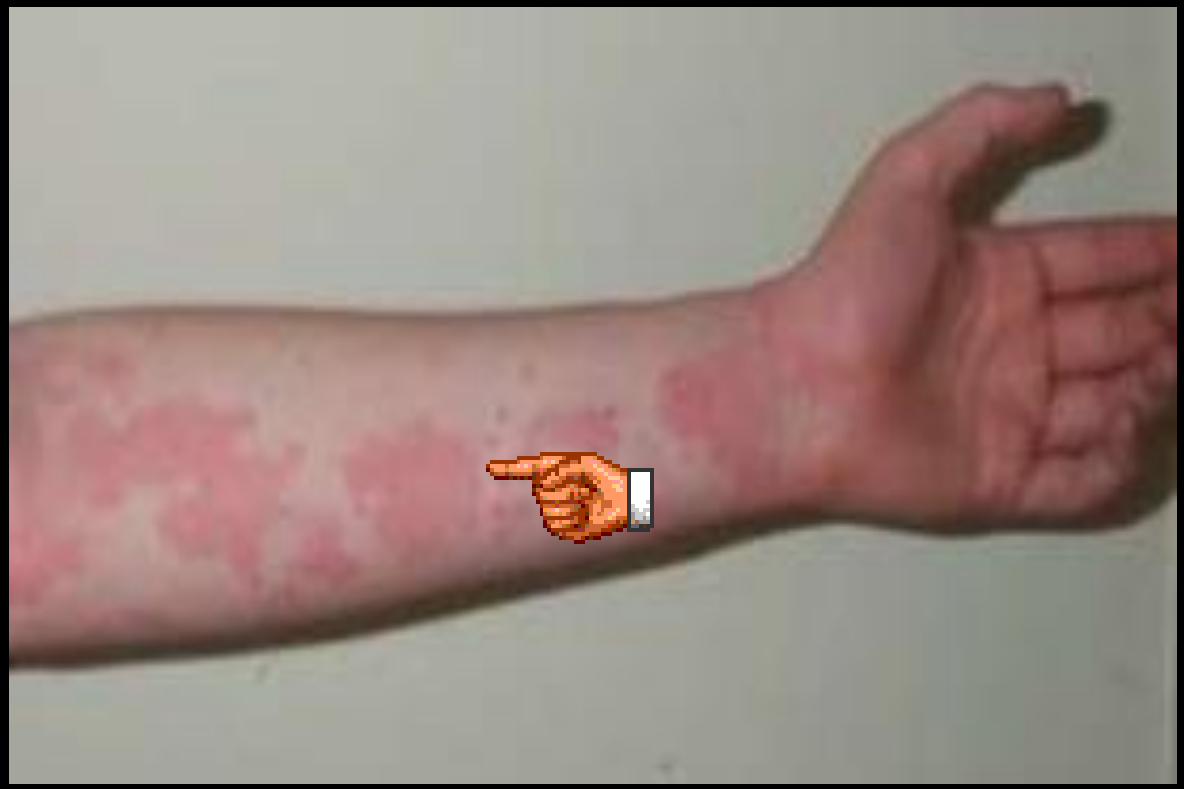
Histamine causes dilatation of the capillaries and small venules lead to increase capillary permeability, this allow proteins and fluids to extravasate into the dermis (wheal)

Urticaria (dermographism)

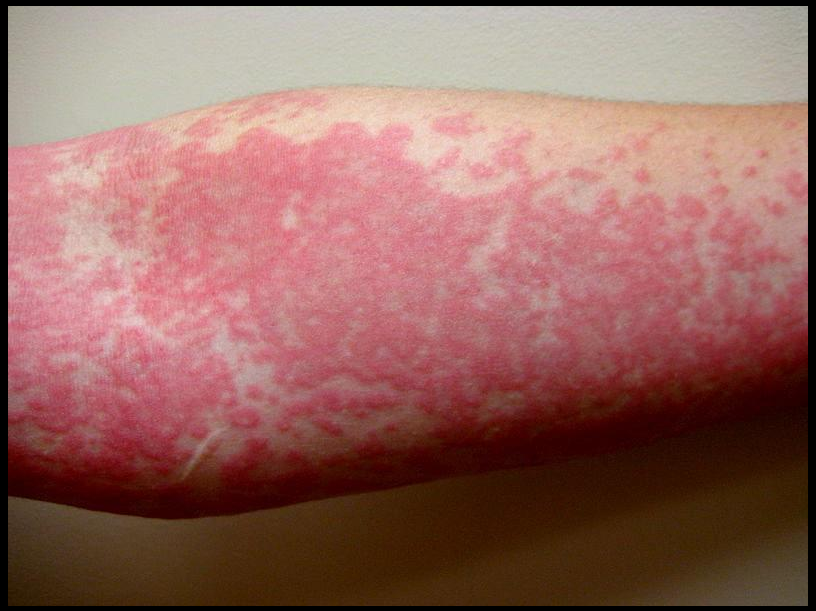


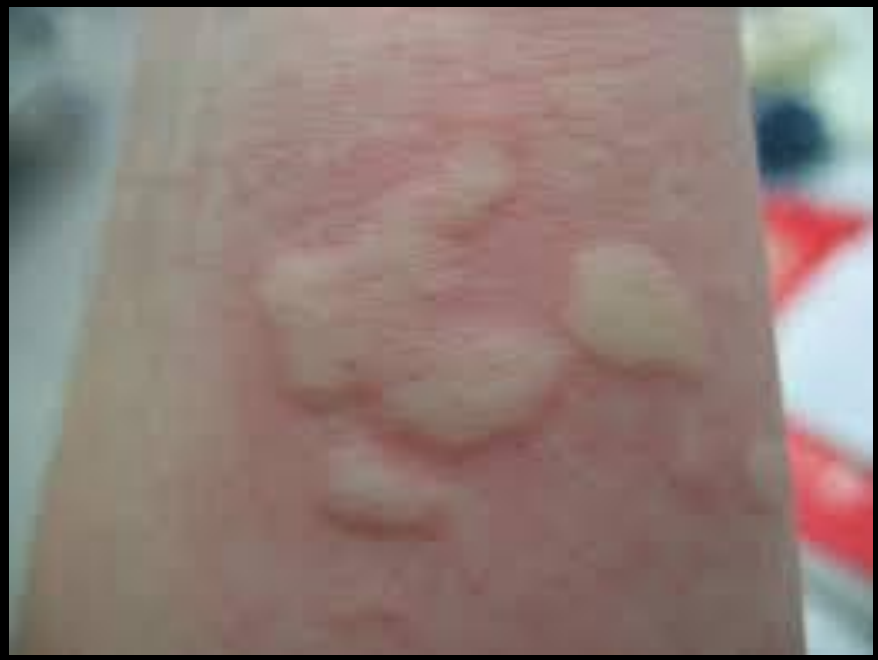


Urticaria on arm



Urticaria





Treatment (not OTC)

1- systemic corticosteroid or antihistaminic orally in chronic urticaria (if recure in more than 2 months), IM or IV in acute cases

(Forticortin ® or avil® for 3 days or Diprofos® one vial and not repeated)

Avoid diprofos in diabetic or HTN

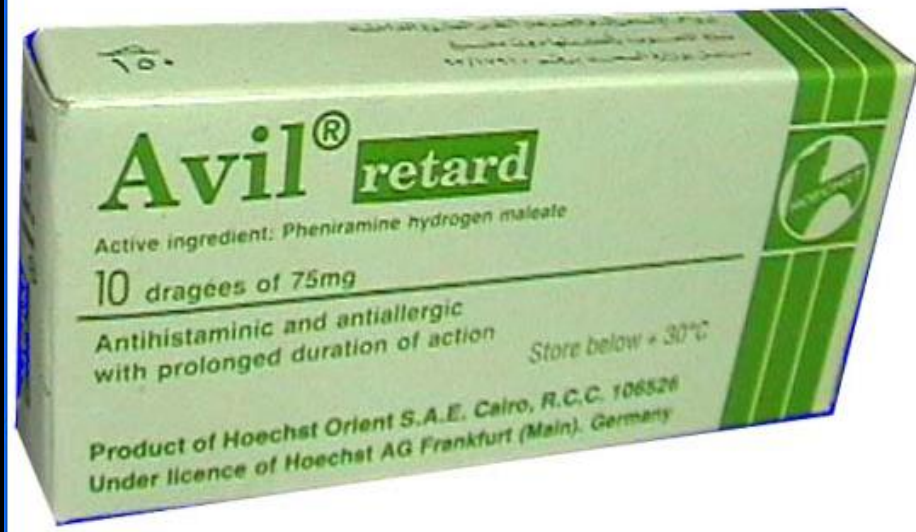
2- topical soothing agents: Zn oxide , calamine, panthinol

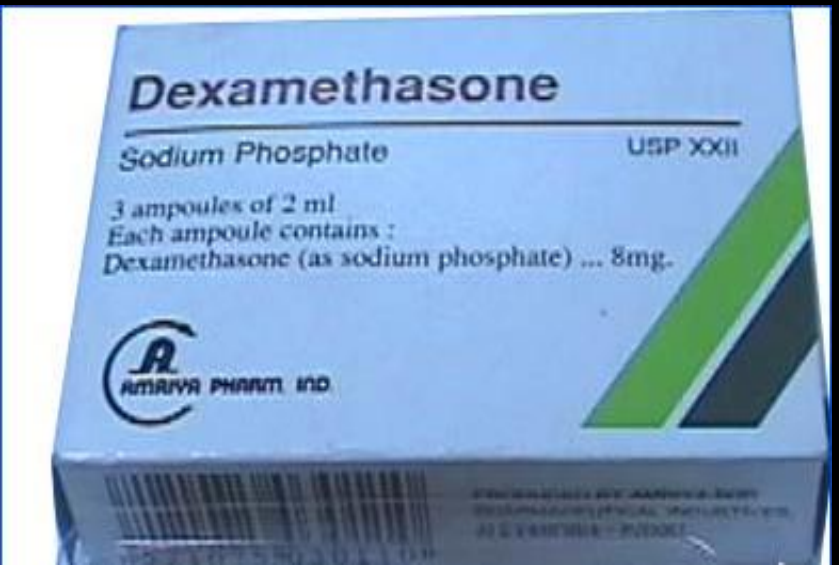
3- Mild tranquilizers (if the precipitating factor is psychic stress or in resistant cases).

Prevention

1. avoid precipitating agent
2. **Cold water compresses** such as soaking a towel in cold water can also relieve itching.
3. **Avoid hot baths or showers** during the acute phase—keep it cool!
4. **Decrease your activity** during the acute phase. It is better not to get hot and sweaty.
5. Avoid **caffeine-containing drinks**, especially if there is a possibility of these being a trigger factor.
6. Avoid scratching
7. Avoid stress

Urticaria Treatment

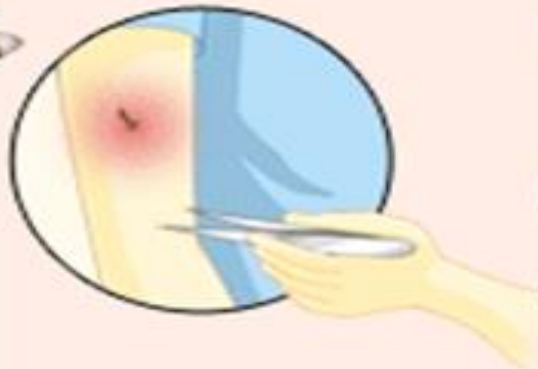




first aid for Bee stings

How to Treat a

BEE OR WASP STING



REMOVE THE STINGER

1. Scrape the sting site with a fingernail or use tweezers to remove the stinger.
2. Wash the area with antiseptic soap and water.
3. Pat dry and apply some antiseptic ointment.

APPLY ICE

1. Put some ice cubes in a thin washcloth and tie it.
2. Hold this pack on the affected area for 10 to 15 minutes.
3. Reapply every few hours until the pain and swelling are gone.

Atopic eczema

- **Atopy** is a genetic disorder characterized by tendency to inflammatory skin reaction associated with intense pruritus" a hallmark symptom".

- The patient usually gives positive family history of bronchial asthma, or eczema, allergic rhinitis.

- - Atopic eczema is a chronic condition **with remissions and relapses**.

- **Psycological and climatic** factors modify the intensity of itching.

Diagnosis depend on location, presentation, precipitating factors, family history with other atopic disease, "recurrence and remission"

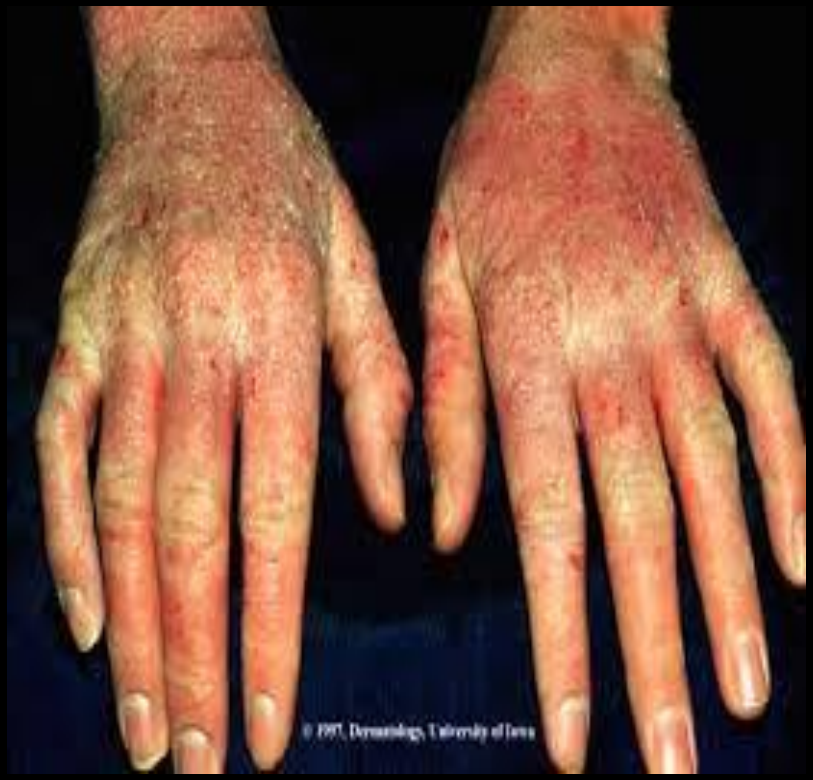
Atopic eczema

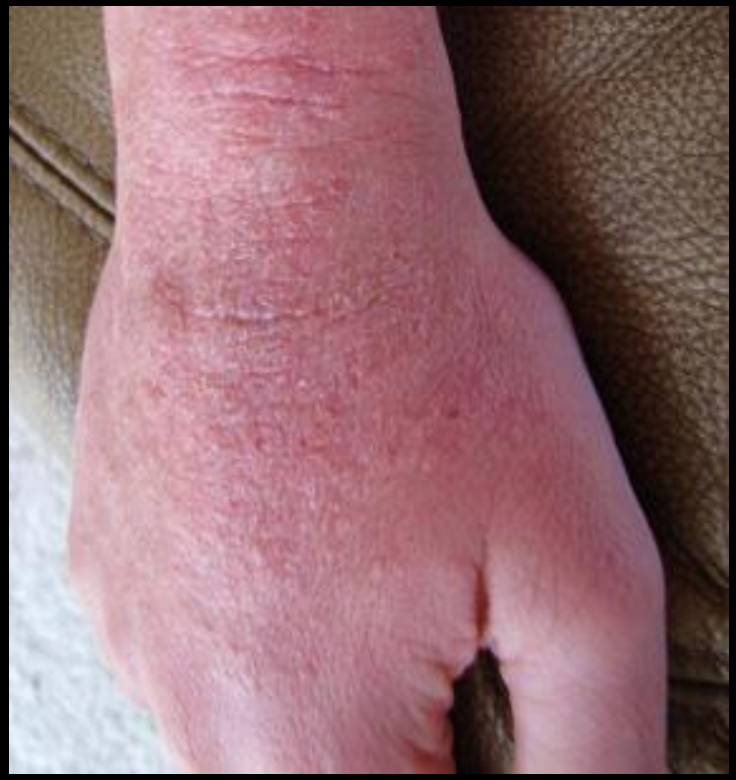
- **Pruritus** is a hallmark ("the itch that oozing") Acute: dry Erythematous, excoriation, scaling patches and plaques; more lichenification in chronic forms. Crusting and oozing if scratched, which will also worsen the itch may bleed because of scratching
- **Distribution of Atopic eczema:**
- -Infant: **Cheeks, forehead, scalp** behind ear(not on nose) extensor surfaces of extremities (albow, knee, hand).
- -Child: Flexur surfaces—antecubital and popliteal fossae, wrists, ankles.
- -Adults: Hands, limbs. lesions are more diffuse with underlying erythema. The face is commonly involved.

Precipitating Factors

- Diet: The most commonly reported allergenic foods are eggs, milk, peanuts, wheat, soy, nuts, shellfish, and fish.
- **Environment and lifestyle:** dust and smoking, as well as the inhalation of dust in general.
- The dander from the fur of dogs and cats.
- Anger, **stress, and lack of sleep**.
- Excessive heat (especially with humidity) and coldness are known to provoke outbreaks
- Sweating and wool clothes

eczema





Treatment

Complications

Increased risk of secondary bacterial skin infections with staphylococci or streptococci, and viral infections such as herpes simplex or even fungal infections

Treatment goal:

- Provide symptomatic relief control the itching.
- Identify and, eliminate triggers and environmental aeroallergens or predisposing factors.
- Prevent future exacerbations and recurrence
- Provide any social and psychological support.
- Treat and prevent any secondary skin infections.

Non-pharmacologic Treatment

-Bathing in lukewarm water (never hot) for about 5 minutes once or twice daily

-Apply lubricant immediately after bathing (moisturizers are a standard of care). adequate skin hydration is a fundamental part of managing AD

-Select clothing made of soft cotton fabrics.

-Keep the child cool; avoid situations in which overheating occurs.

-Identify and remove irritants and allergens.

-Using non-soap skin cleansers may cause less skin irritation. Using a soap substitute such as **aqueous cream** helps keep the skin moisturized.

NB: -**Moisturizers** are especially effective if applied 5–10 minutes after bathing. As a rule of thumb **the thicker the moisturizer the better it is at retaining moisture**. Ex: **panthinol, Petroleum jelly**

Treatment (not OTC)

- The use of long-term intermittent application of topical corticosteroids was beneficial and safe.
- The choice of corticosteroid should be matched with the severity and site of disease.
- Low-potency corticosteroids, such as hydrocortisone 1%, are suitable for the face, and medium-potency corticosteroids, such as betamethasone valerate 0.1%, may be used for the body when necessary.
- For longer-duration maintenance therapy, low-potency corticosteroids are recommended.

Treatment (not OTC)

- Ultrahigh- and high-potency corticosteroids, such as betamethasone dipropionate 0.05% or clobetasone propionate 0.05%, are typically reserved for **short-term treatment of lichenified areas in adults**.

- Short-term treatments mean brief periods of 1 to 2 weeks. After the lesions have cleared or significantly improved, a lower-potency steroid should be used for maintenance.

- Adverse effects of topical corticosteroids are directly related to the steroid potency, duration of use.

Treatment (not OTC)

- Local adverse effects include striae and skin atrophy, perioral dermatitis, acne, and allergic contact dermatitis (often related to the vehicle).

- **Potential systemic effects include:**

hypothalamic-pituitary-adrenal (HPA) axis suppression

infections

hyperglycemia

cataracts

glaucoma

Osteoprosis

growth retardation (in children)

Treatment (not OTC)

- Topical immunomodulators such as the calcineurin inhibitors tacrolimus ointment (Protopic) and pimecrolimus cream (Elidel) reduce the extent, severity, and symptoms of AD.
- Tacrolimus 0.03% ointment for moderate-to-severe AD for ages ≥ 2 y the 0.1% ointment limited to ages ≥ 16 years;
- Pimecrolimus 1% cream for mild-to moderate AD for ages ≥ 2 years.

- Second-line treatments due to possible cancer risk (no skin steria or atrophy).
- Pimecrolimus has more favorable lipophilic characteristics and better distributed but more cancer risk

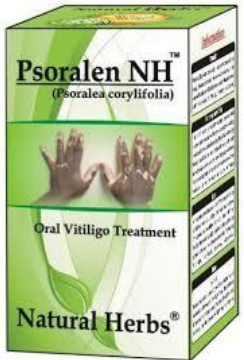
- Side effects: **transient discomfort** (burning sensation) at the application site **sun protection** is recommended

Treatment (not OTC)

- Phototherapy is effective for AD and is recommended especially for 1-the disease not controlled by calcineurin or corticosteroid.
- 2-allowing for the use of lower potency topical corticosteroids
- 3-eliminating the need for maintenance corticosteroids.

- Phototherapy may consist of either ultraviolet light therapy alone, or ultraviolet light therapy alongside drug or topical ointment (commonly called photochemotherapy).

- Psoralens plus ultraviolet A light (PUVA) is one type of photochemotherapy. The photosensitizer (psoralens) is administered either orally or in a bath immediately prior to ultraviolet A (UVA) light therapy.



Treatment (not OTC)

- **Oral prednisone or triamcinolone** may be as a short-term treatment for severe, recalcitrant, chronic AD.

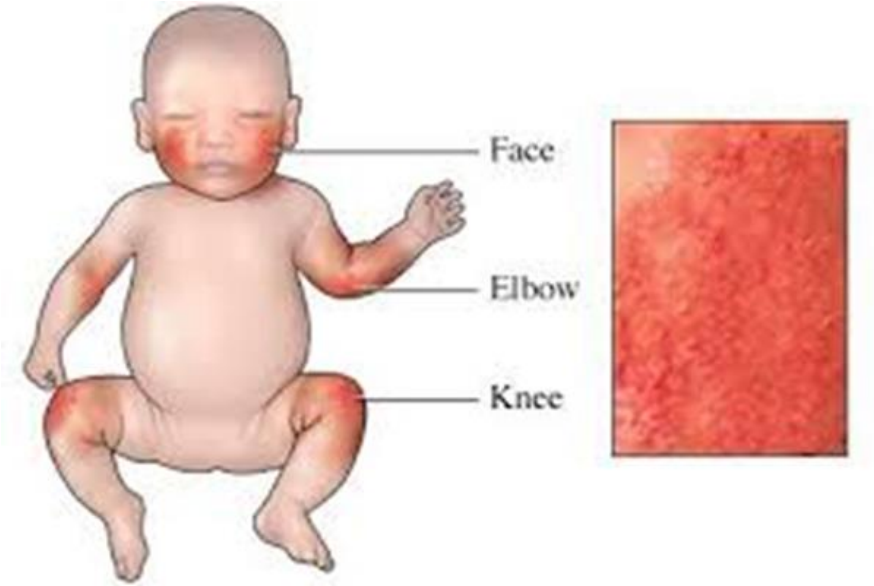
- Cyclosporine is considered effective for severe AD. but its usefulness is limited by significant side effects, including **hypertension and nephrotoxicity**. There is also the potential for significant **drug–drug and drug–food (e.g., grapefruit juice) interactions.**

Infantile eczema

Common Atopic Eczema in children **below 2 years**

The skin becomes abnormally dry because of excessive loss of moisture by oozing .

Infantile Eczema is a chronic condition. it is generally a long-term or recurring condition, but you can control it with treatment and by avoiding irritants.



Diagnosis

This depends on both age, location, presentation and the presence of <u>family history</u>

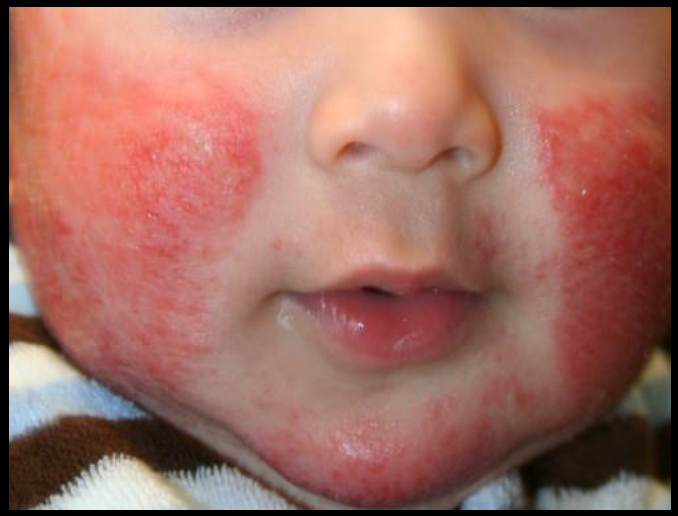
Age: In children younger than age 2 and **disappear before 6 years** in about 70% of cases

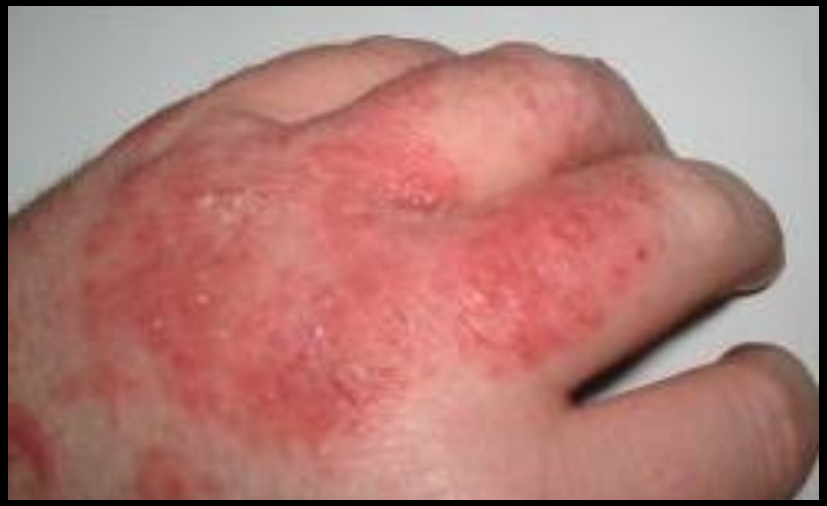
Symptoms : Erythematous, papular Dry thick skin with blisters that show oozing and crusting. Intense itching and Rash. Chronic cases form thick layer (patches of slightly raised skin).

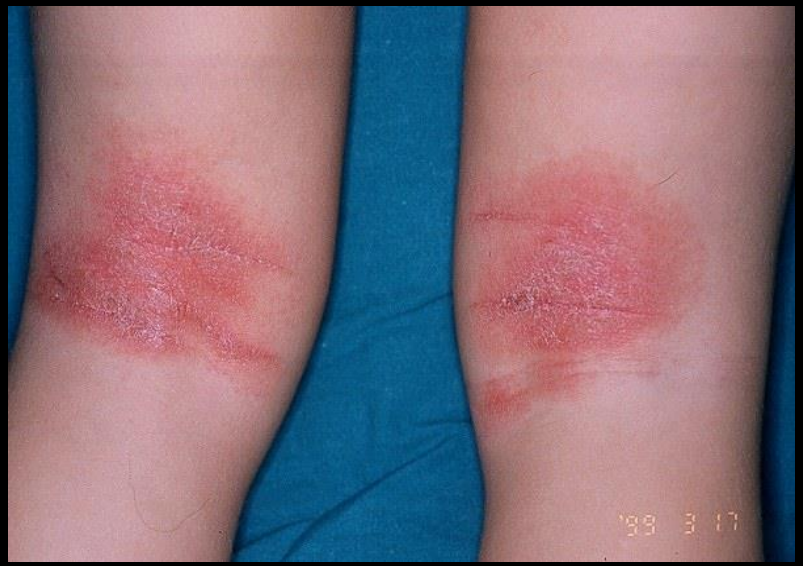
Location :

skin lesions begin on the cheeks mainly and may on forehead, behind ear, hand, elbows, or knees

Infantile eczema







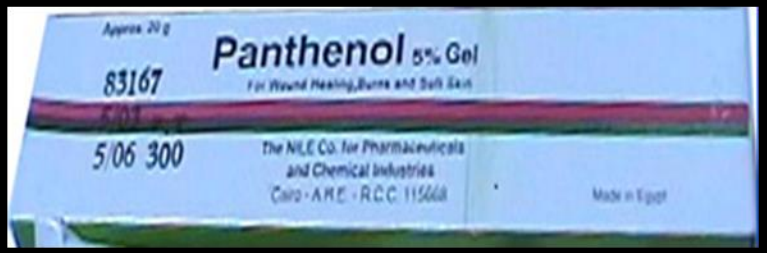
Treatment

- - topical emollient and protectants (panthenol, carbamide) and moisturizers are the allowed OTC drug.
- -Use mild topical corticosteroids (fluticasone) to soothe less severe or **dry thick scaly** lesions.
- - **oral corticosteroids (dexamethazone, and prednisone)** to reduce inflammation if the condition is severe but only by physician.
- approximately 30% to 60% will have the same skin condition continuing into their adulthood

Treatment


Cutivate™ cream
5 grams
GlaxoSmithKline
drugexp.jp


Predsol
Syrup
Anti-inflammatory
Prednisolone
Sodium Phosphate
50 ml
بريدسول
Predsol
50 ml
Syrup
Anti-inflammatory


Panthenol 5% Gel
83167
5/06 300
The NILE Co. for Pharmaceuticals and Chemical Industries
Made in Egypt

Prevention

- -Avoid food allergens and irritants such as wool.
- -Avoid cows milk and recommend breast feeding. children who are breast-fed are less likely to get eczema. **breastfeeding** has been demonstrated to help prevent the development of allergic disease than cow milk
- -When washing or bathing, keep water contact as brief as possible and use less soap than usual.
- After bathing, applying lubricating emollient cream on the skin

3- Vitilligo

It is genetic and autoimmune disorder

Diagnosis:

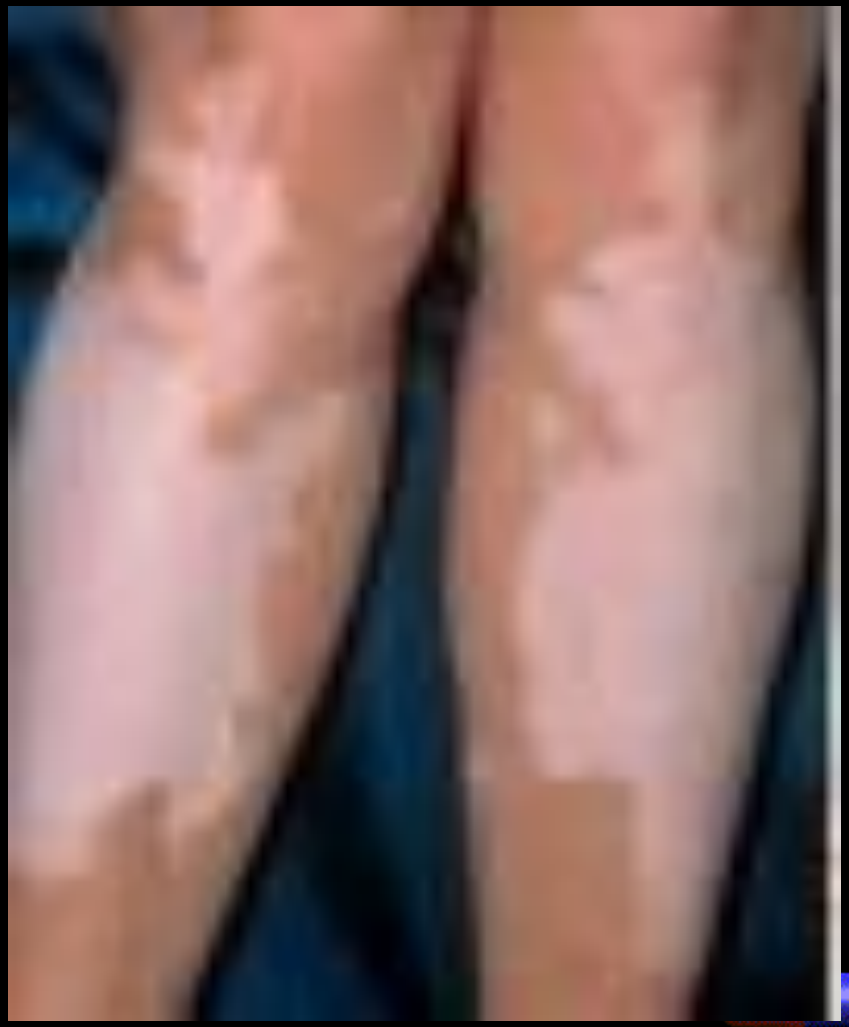
This depends on location and presentation:

It gradually start on sun exposed area (arm , face, hand, elbow) and hyper pigmented area (genitalia)

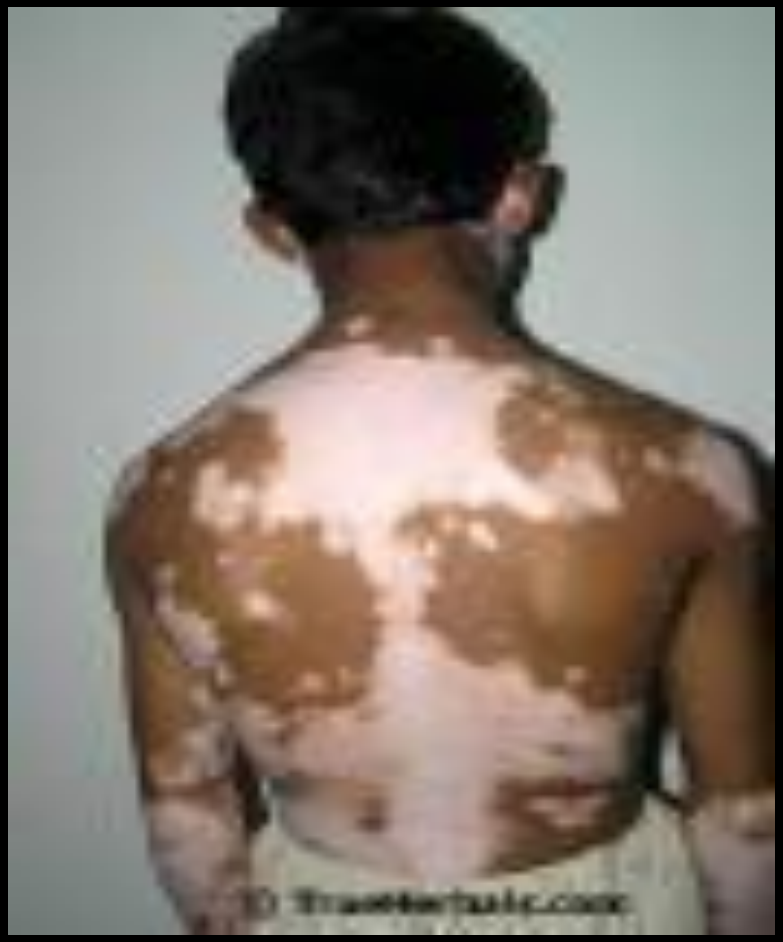
It appears as milky white macules with sharp erythematous margin without itching or scale (difference from tinea versicolour)

Vitilligo

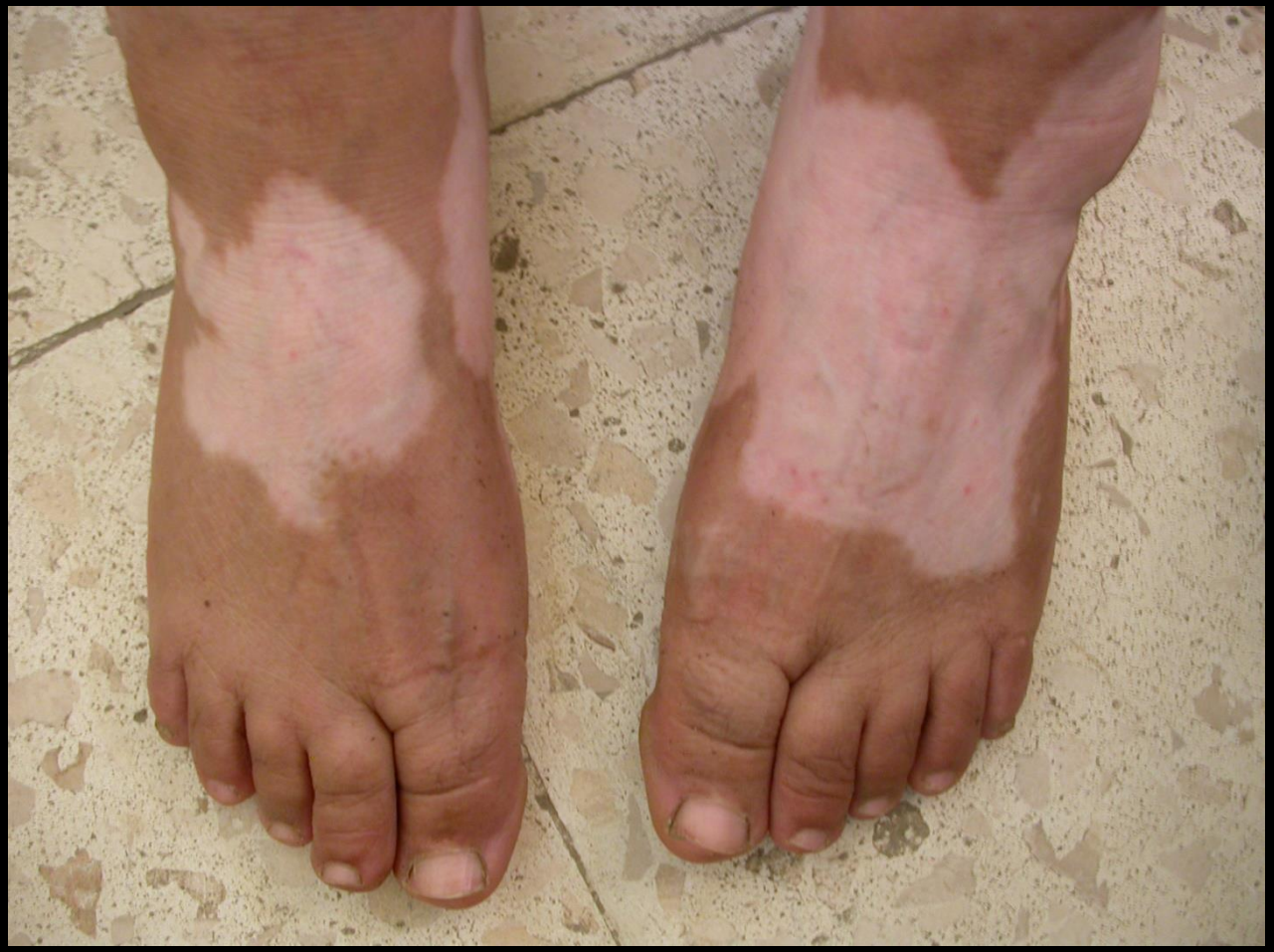
Vitilligo



Sever Vitilligo



Vitilligo



Treatment (not OTC)

1- systemic corticosteroid:(prednisone, dexamethazone) its immunosuppressive effect reduce the progress of the lesion

2- repigmentation

-Khelline (ezaline®)photosensitizer or psorallen followed by UV exposure (stimulate melanocyte to produce melanin). Psorallen may show phototoxicity and mutagensis

- meladinine precursor (methoxsalen) followed by UV exposure (ultrameladinine®)either lotion(for small area) or tablets(for large area)

Duration of therapy for 2-4 months

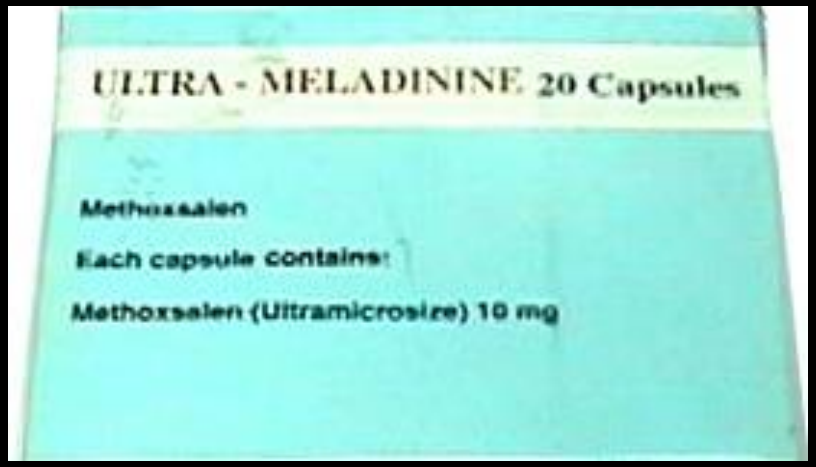
Treatment (not OTC)

3-tanning agents: Dihydroxyacetone or DHA (Vitinorm®) make coloration of the skin

4- Depigmentation (fading the rest skin of the body)

Hydroquinone cream

Vitilligo treatment



4- Pityriasis alba

common cause of hypopigmentation in children,

especially in darker skins. it is Pale patches or white spot with a slightly scaly surface appear mainly in face of children

unknown cause but suspect to be caused by malnutrition (calcium and vitamin A) or fungal infection

Ptyriasis alba

Treatment(OTC)

1- corticosteroid cream

2- moisturizing cream

3-may add vitamins and minerals

4- may add antifungal topical preparation.

It shows good prognosis

Hyperhydrosis

Excessive sweating, either **generalized or focal** (e.g., palmar, axillae), and affecting 2%—3% of general population; most common in **adolescence and young adults**.

Generalized hyperhidrosis is associated with underlying systemic disorder, e.g., Endocrine(hyperthyroidism), or neurologic but **focal hyperhidrosis often idiopathic**.

Diagnosis

Focal, visible, **excessive sweating of at least 6 months** duration without apparent cause with at least 2 of the following characteristics:

Bilateral and relatively symmetrical sweating.

Frequency of at least 1 episode per wk.

Impairment of daily activities.

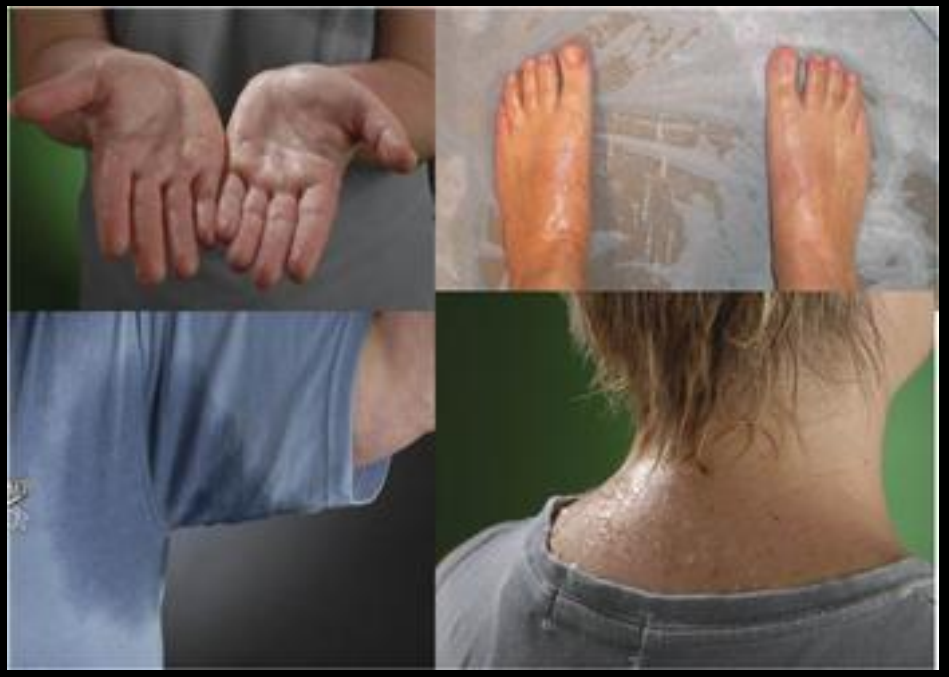
Age at onset 25 yr.

Positive family history.

Cessation of sweating during sleep.

Differential diagnosis: **Starch iodine** test can be used to outline the area of excessive sweating.

Hyperhydrosis



Treatment (not OTC)

Important to rule out systemic causes.

Topical: Aluminum chloride hexahydrate solution in ethanol 12% (Drysol®) or in gel base instead of alcohol(Hydrosal®)

They make irritation to skin

Systemic:

Botulinum toxin (Botox®) injections very effective; can last 6—12 months.

Surgery: Endoscopic thoracic sympathectomy, subcutaneous liposuction.

Body odor (general hygiene)

Body odor is an unpleasant smell that is a social embarrassment for many people

caused by a combination of inadequate or incorrect attention to personal hygiene and excessive perspiration from the armpits and groin. Certain types of bacteria can cause a strong odor in some people who perspire heavily.

Some medical condition (secondary temporary): vaginal infection, kidney failure, taking certain social drugs such as marijuana, or smoking. Relieved by avoiding the cause.

Treatment and recommendations

use antiperspirant deodorants

Scrubbing the body

Thoroughly scrub the body, especially the armpits and groin, with water and a deodorant soap. It is preferable to scrub morning and night under the shower, since the sweat glands and bacteria are active day and night.

Choose suitable clothes

Choose natural fabrics such as cotton and wool that absorb perspiration better than synthetics.

Keep your clothes fresh

Regular washing of clothes is important. Using the same underwear for up to some days is a certain way to cause bad smells, so change each day, especially in the summer months.

Treatment and recommendations

Dietary advice: Avoid or reduce the intake of garlic, fish, curry, onions.

Reduce your intake of caffeine (coffee, tea and cola drinks), which stimulates sweat activity.

Shaving hair under the arms

Shaving the hair from the armpits is certainly essential with a body odour problem.

Old measures: taking a bath in dilute tomato juice. Pour 2 cups of tomato juice in your bath water and sit in it for 15 minutes before scrubbing with a deodorant soap(very effective).

Surgery: If you perspire heavily from the armpits, the sweat glands can be surgically removed by a simple procedure called *axillary wedge resection*. Ask your doctor to arrange this if necessary.