Derma Team 436

Common skin infections

Objectives:

- To know the main types of skin infection.
- To recognize the primary presentation of each type.
- To know the scheme of managements lines.

المحتوى مبني على الكلام الي قاله الدكتور خالد العجلان بالمحاضرة ... ارسلنا له المحتوى واكد لنا انه كافي للاختبار... الي باللون البنفسجي هذي أشياء اضافها الدكتور.. ممكن تكون مهمة أكثر :)

Done by: عبدالله الناصر، صقر التميمي، خالد شراحيلي
Revised by: مؤيد اليوسف

Before you start.. CHECK THE EDITING FILE

Sources: doctor's notes

[Color index: Important | doctor notes | Extra]

Types of infections:

- BACTERIAL INFECTIONS.
- VIRAL INFECTIONS.
- FUNGAL INFECTIONS.
- INFESTATIONS.

1- Bacterial infections:

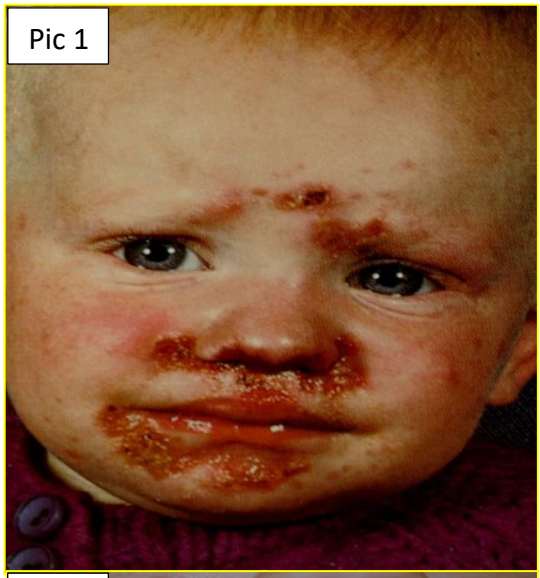
a. Impetigo: It is mainly affect children
Most common organism: streptococcus, **2nd most common:** staphylococcus
Treatment:
Topical unless if the patient has:
- fever
- constitutional symptoms
- immunocompromised

Then give oral antibiotics
amoxicillin, Cephalosporin
Pic1&2:
description: Perioral peri-nasal crusted honey colored papules.

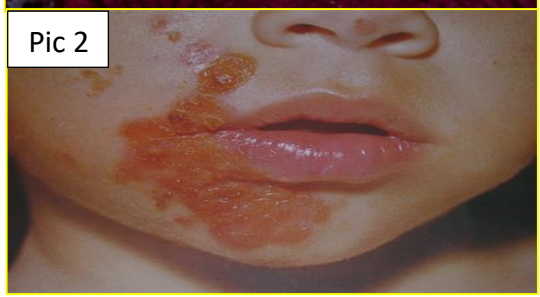
Pic 3:
Bullous
Erupted bullous

-if you see a Bullous then it is only staphylococcus.

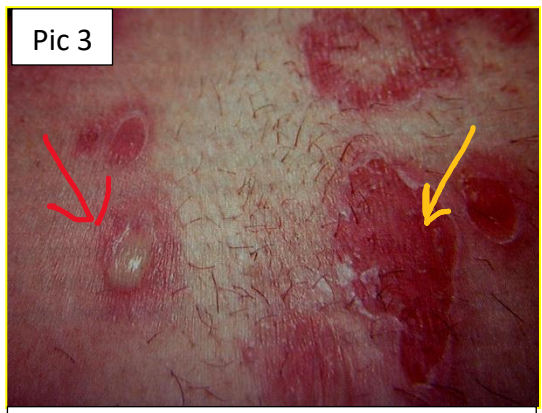
Pic 1



Pic 2



Pic 3



Bullous Impetigo

b. Cellulitis:

it Can be superficial (in the dermis), or in the deep tissue.
If superficial then it is called: erysipelas.

Most common organism:
streptococcus**, 2nd:** staphylococcus.

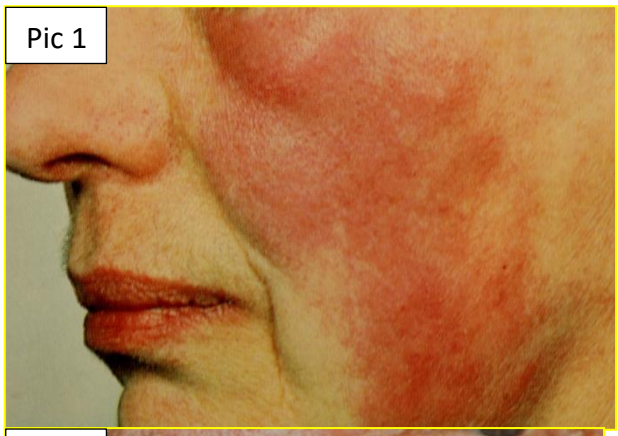
Treatment:
Penicillin group**.**
if you suspect MRSA (Methicillin Resistant Staph A): clindamycin, vancomycin, doxycycline or 3rd generation cephalosporin**.**

Treatment always: oral antibiotics**.**
BUT if the patient:

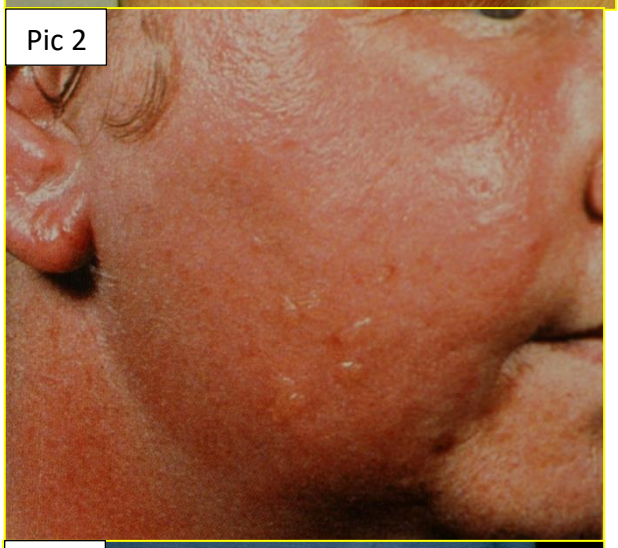
- **has sings of septicemia.**
- **not improving after 24 hours of Oral antibiotics**
  EMERGENCY with IV antibiotics

Pic1:
red and swollen, feel painful and warm
Pic2: More swollen edematous
With blisters
Pic3:
Most common site for cellulitis is the leg because the leg is more prone to traumas.
Trauma > crack of skin > entry for bacteria, **Pic 4**: More severe cellulitis erupted bullae

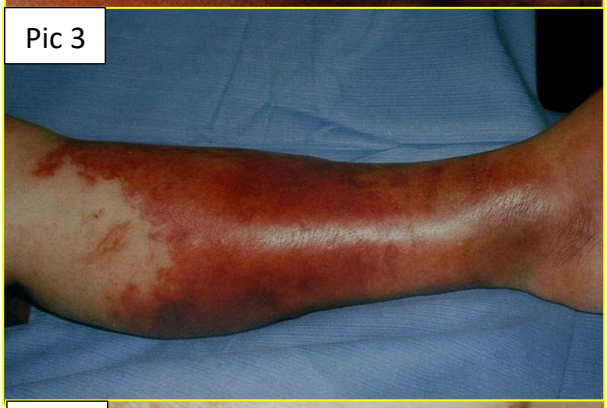
Pic 1



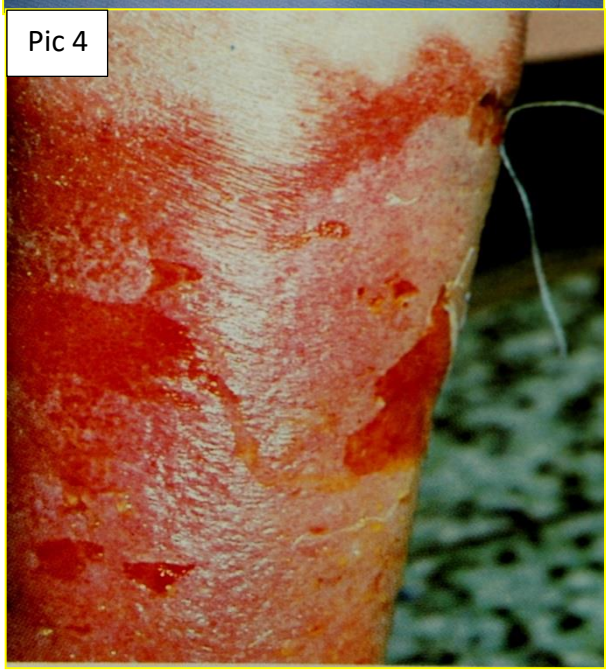
Pic 2



Pic 3



Pic 4



c. Folliculitis:

It’s the infection of hair follicles.
Most common organisms: staphylococcus

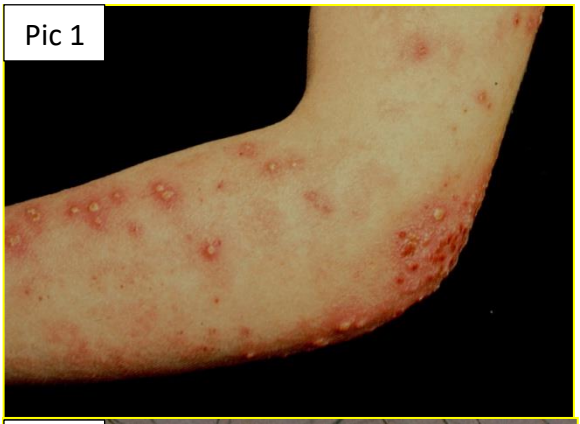
Divided into:
Acute: oral antibiotics resolve within 7-14 days
Chronic: Patients are usually carriers of the bacteria in nasal, oropharyngeal, axilla or genital areas we give them oral Rifampicin and clindamycin to clear the bacteria from their body + topical (topical especially in chronic)

Pic1,2: Pustules in hair follicles: folliculitis.

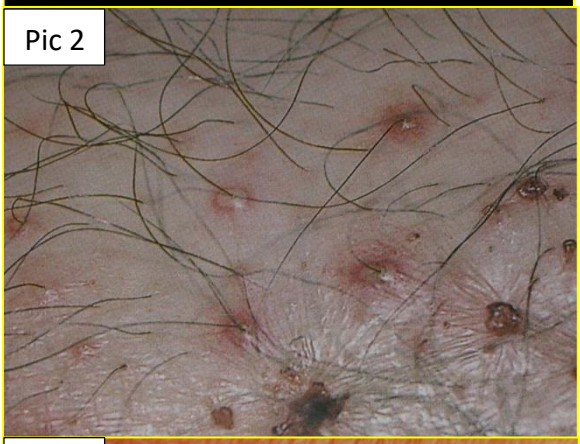
Pic 3: Furuncle: deeper and wide infection in one hair follicle.

Pic 4: Carbuncle: deep and wide folliculitis in more than one hair follicle.

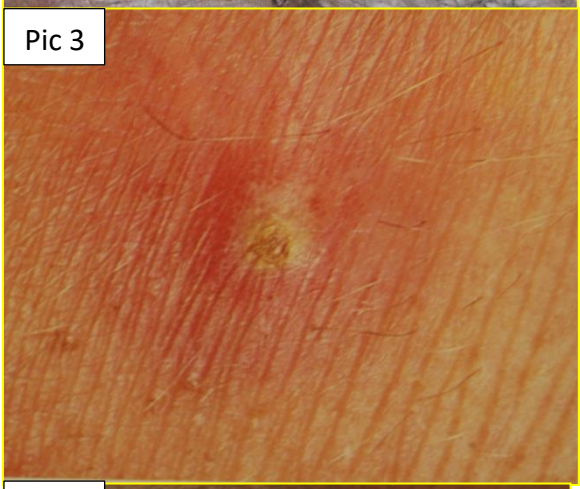
Pic 1



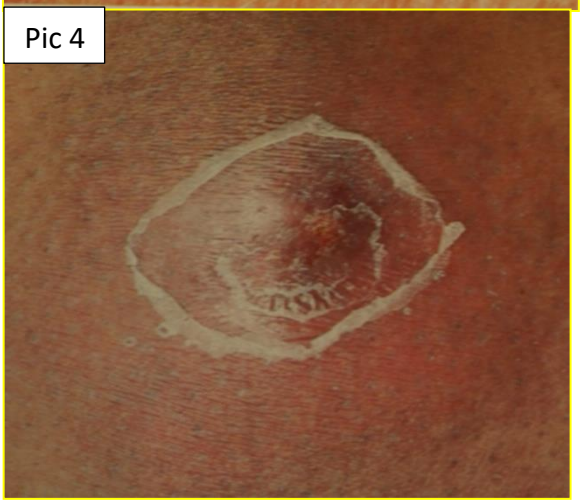
Pic 2



Pic 3



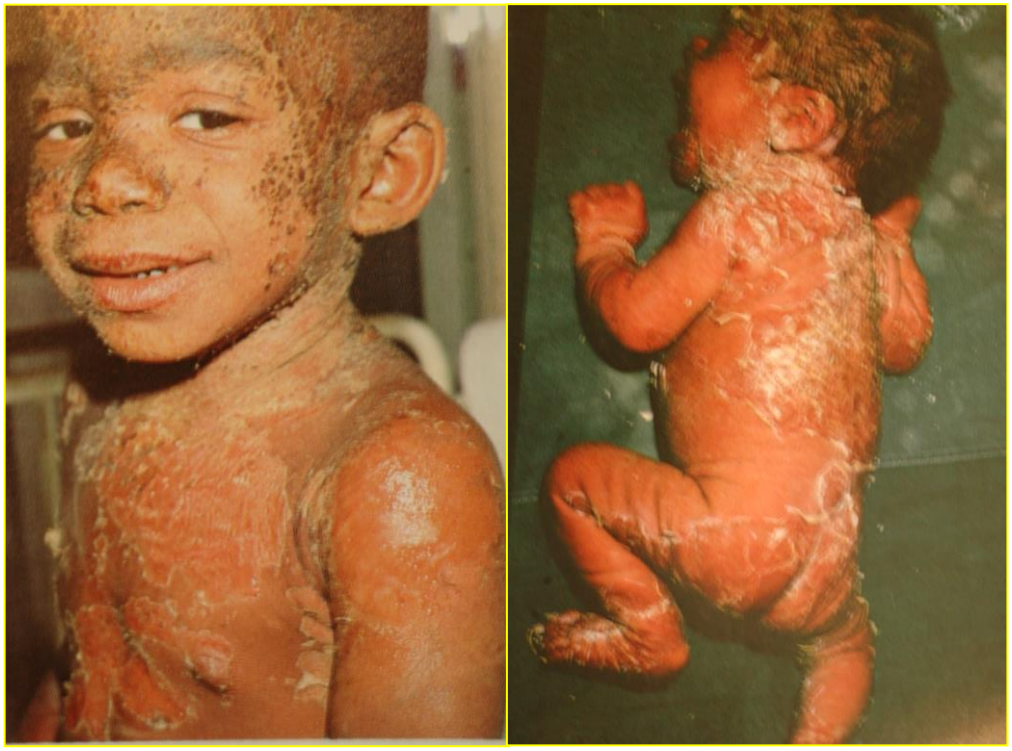
Pic 4



d. **Staph Skin Scalded Syndrome (SSSS):**

Widespread infection of staphylococcus,
we need immediate I.V antibiotics to avoid septicemia

مهمة لان ممكن يشوفها دكتور بالطوارئ ويحسبها
Eczema



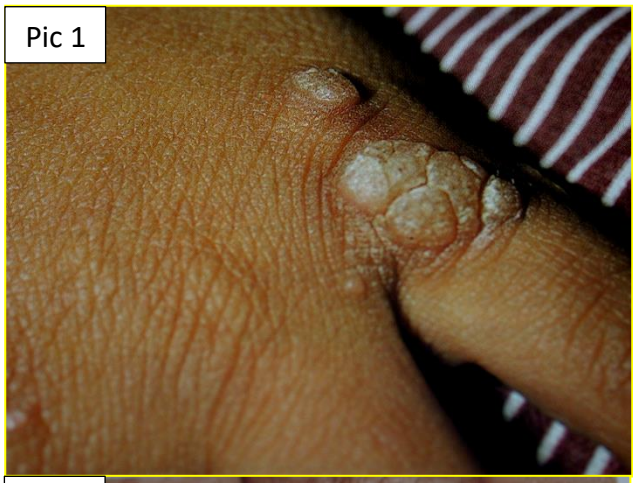
2- Viral infections:

a. Warts:

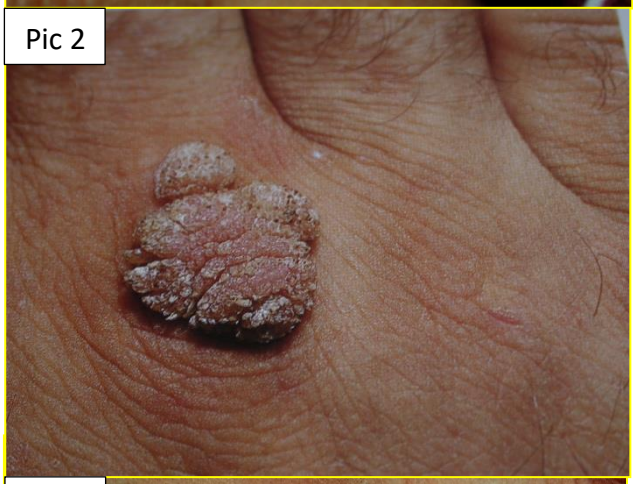
- Common warts are caused by HPV 2 and 4
- genital warts are caused by HPV 6 and 11 and they cause cervical squamous cell carcinoma
- HPV 16,18 are the most aggressive to causing genital cancer
- Diagnosis of the cancer by skin biopsy
- To know what subtype of Human Papilloma virus is by PCR (polymerase chain reaction)

Pic 1,2,3: Hyperkeratotic verrucous papules.
Pic 4: plane wart caused by HPV type 1 mainly

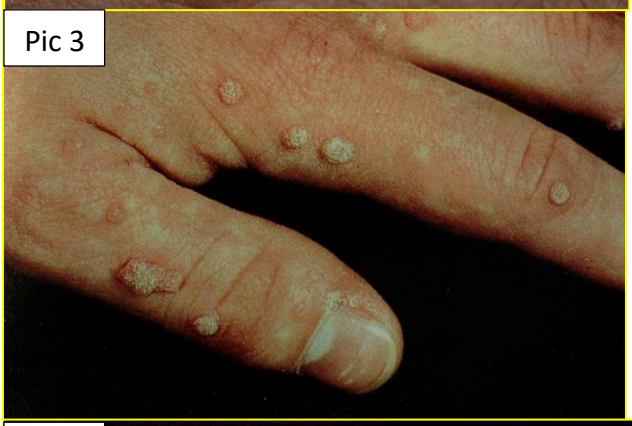
Pic 1



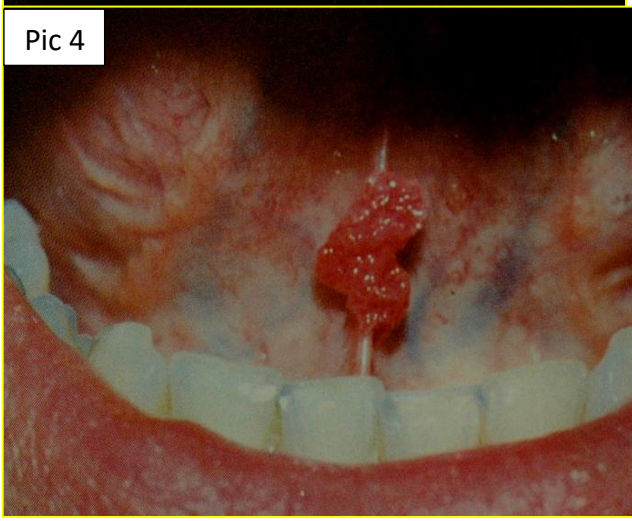
Pic 2



Pic 3



Pic 4

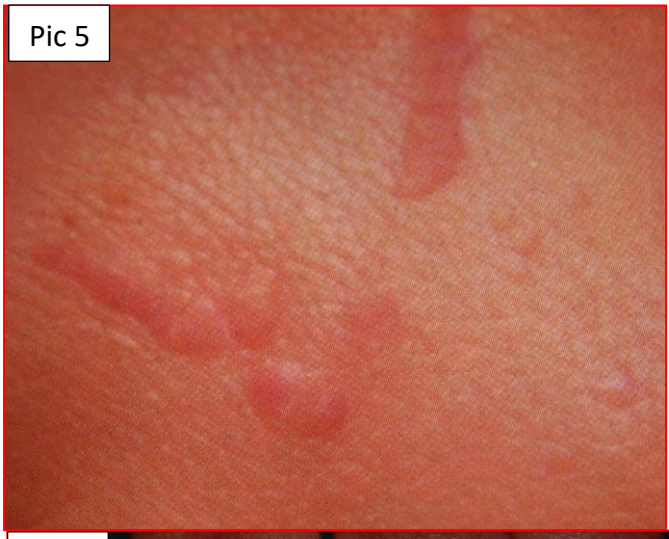


Pic 5,6: Plane warts caused by HPV 1 and 5

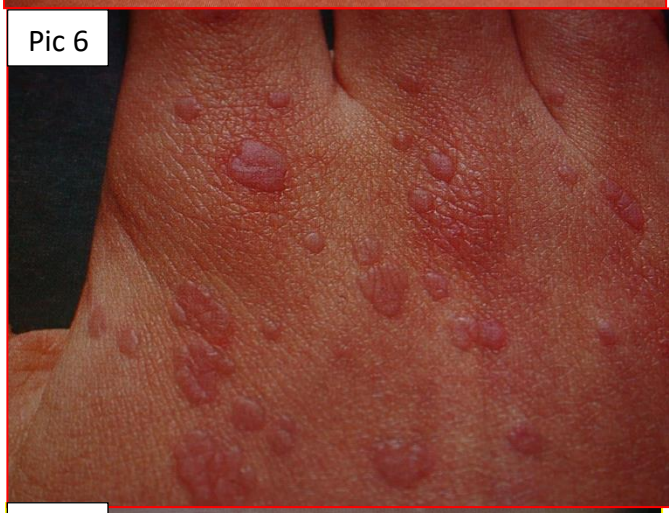
Pic 7: Planter wart. (affect sole)

Pic 8: **Condyloma acuminate:** it's a type of genital wart, commonly sexually transmitted
description: Multiple Soft convoluted papules.
Think of child abuse if a child has genital warts.

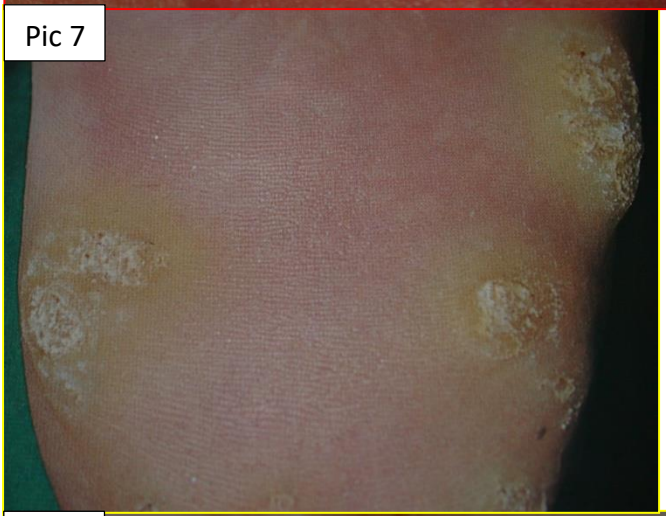
Pic 5



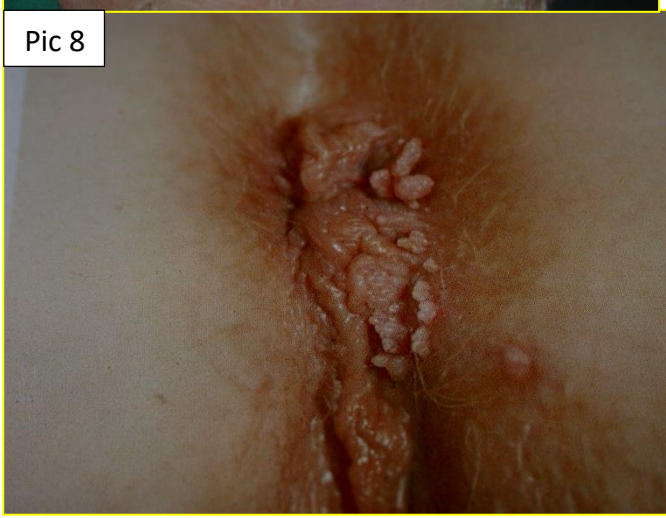
Pic 6



Pic 7

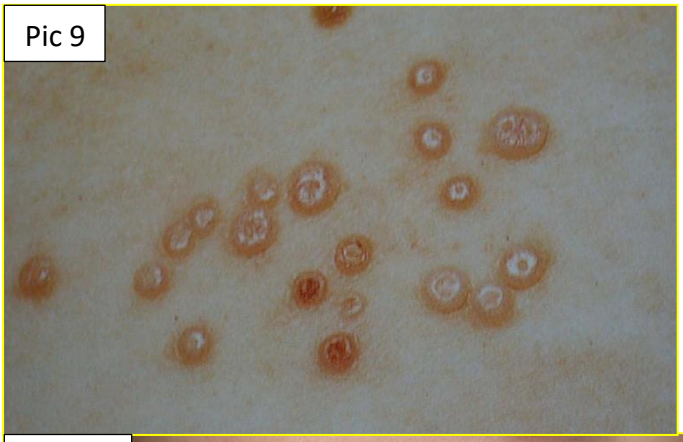


Pic 8

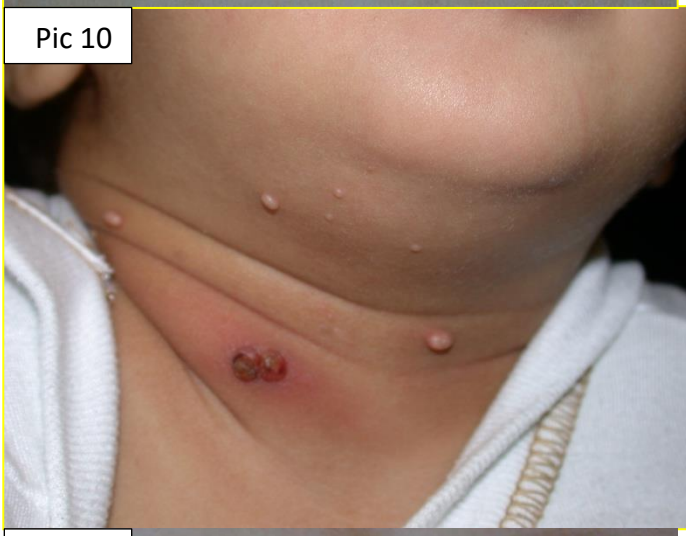


Pic 9,10,11:
Molluscum Contagiosum (Poxvirus):
Dome shaped shiny yellowish-whitish papule with central umbilication.
mostly with children rarely with adults,
in adults: immunocompromised or as sexually transmitted disease(**pic11**).

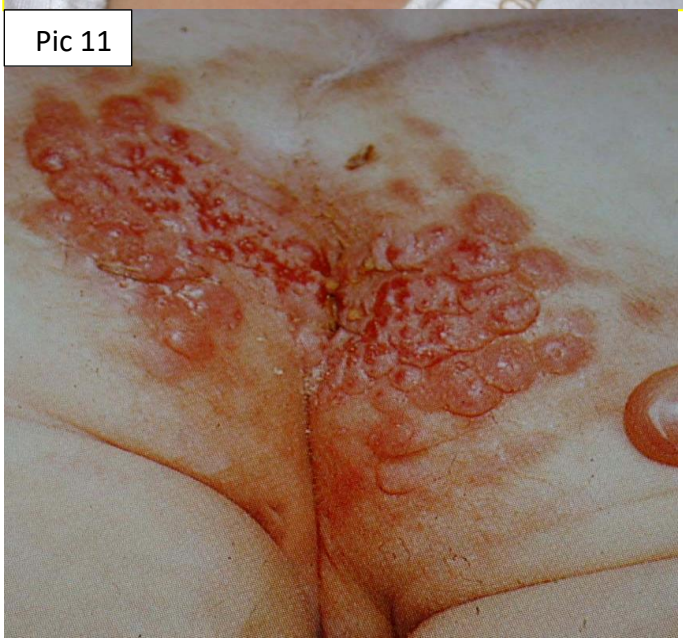
Pic 9



Pic 10



Pic 11



In genital warts in Childs it can be cause by Autoinoculation or abuse.
Autoinoculation: اذا المريض نفسه حك منطقة فيها الثالول بعدين لمس منطقة ثانية ممكن ينتقل للمنطقة الثانية

Treatment:
Warts are self-limiting.
warts and molluscum treatment:

- Liquid nitrogen
- Electric cautery
- Keratolytic e.g. salicylic acid

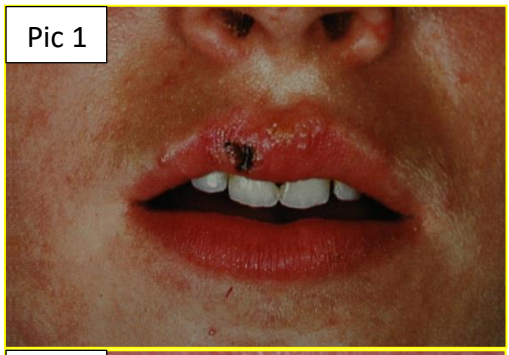
- In genital warts its painful to use the previous treatments so Imiquimod (cream) is the treatment of choice.
- Most effective treatment of molluscum is curettage but you can't use that for warts because warts are deeper in the skin.

b. **<u>Herpes Viruses</u>**:

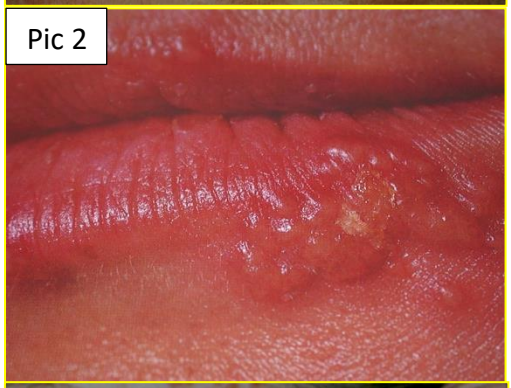
1- Hsv1:

- mostly affects Orolabial mucosa.
- 80% of general population aged 18 had hsv1 whether it was clinical or subclinical. But if you test them with IGG for HSV will be positive
- Hsv1 is normally self-limiting, but sometimes it causes Primary severe Gingivostomatitis and you should give systemic antiviral.
- Stay latent at trigeminal ganglia

Pic 1

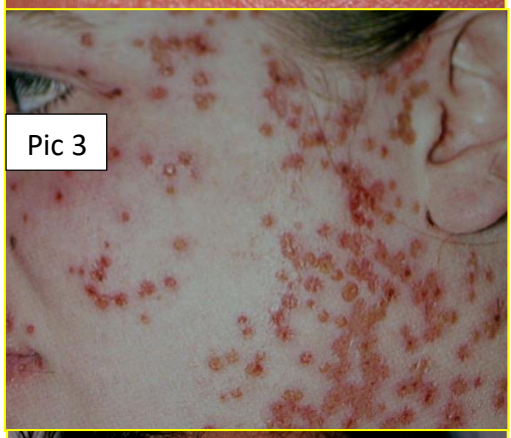


Pic 2



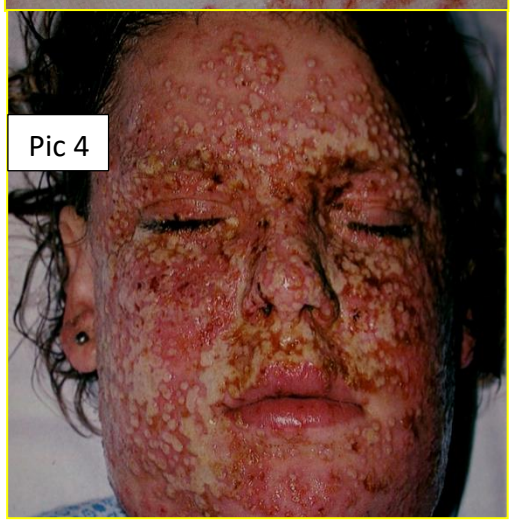
Pic 1,2: Multiple grouped erythematous vesicles

Pic 3



Pic 3,4: **Eczema Herpeticum**:
is a serious complication that needs admission and systemic antiviral.
These patients had eczema (or any condition break the integrity of skin) and herpes at the same time, the herpes autoinoculated the area of the eczema, so any patient with active eczema and herpes should be given systemic anti-viral to prevent **Eczema Herpeticum**.

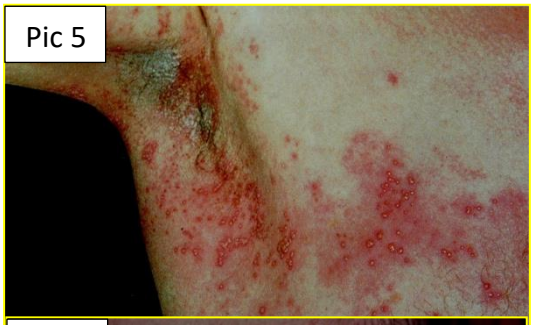
Pic 4



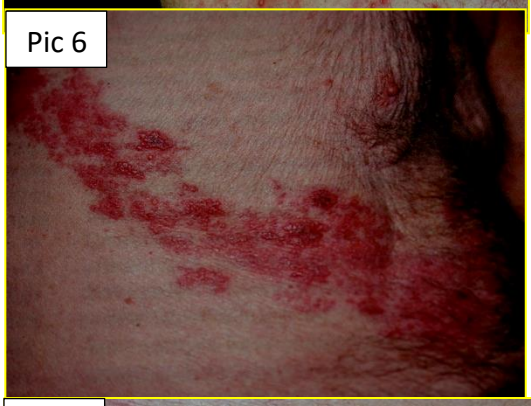
2- Hsv2:

- mostly affects genital.
- Sexually transmitted.
- patients need counseling to teach them not to spread the virus.
- You should treat the partner.
- Stay latent at sacral ganglia

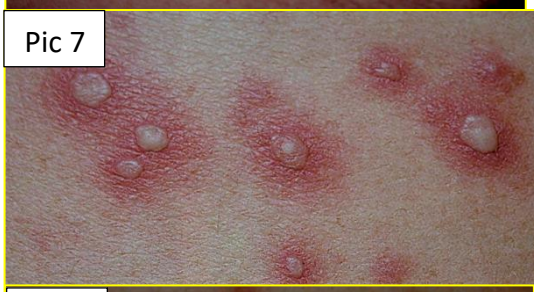
Pic 5



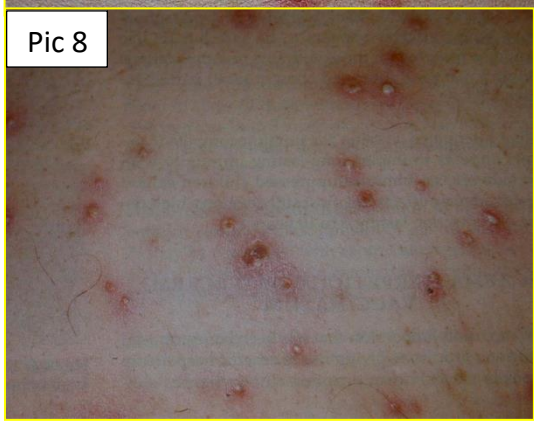
Pic 6



Pic 7



Pic 8



Treatment:

- **Mild:** self-limiting
- **Eczema herpeticum /Immunocompromised/ lesion around the eye (periorbital):** systemic antiviral

- **If recurrent more than 6 times a year:** the patient should be given suppressive systemic Acyclovir for 6 months to one year.

3- **Herpes Zoster (Herpes virus III):**

Pic 6: Shingle is the disease of elderly and immunocompromised, we give anti-viral to minimize the disease duration and may help to decrease Post herpetic neuralgia

Pic 7: Varicella (Chicken pox):

Multiple vesicles on erythematous base, (Dew drops) قطرات المطر

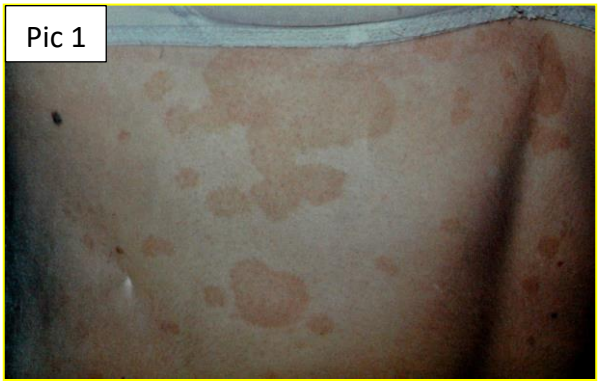
Self-limiting in children,
But, in adults it is more aggressive, so we give systemic anti-viral (4x the dose of HSV1) to avoid the life-threatening complications of varicella in adults e.g. Varicella pneumonia or Varicella encephalitis.
Also, adults with no history of varicella in childhood should take varicella vaccine.

3- fungal infection:

a- Tinea Versicolor:

Most common fungal infection in adults
Its Chronic and affects mostly the truncal area
Treatment: Topical antifungal (e.g. ketoconazole shampoo)
systemic antifungal can be used also (e.g. itraconazole)

Pic 1



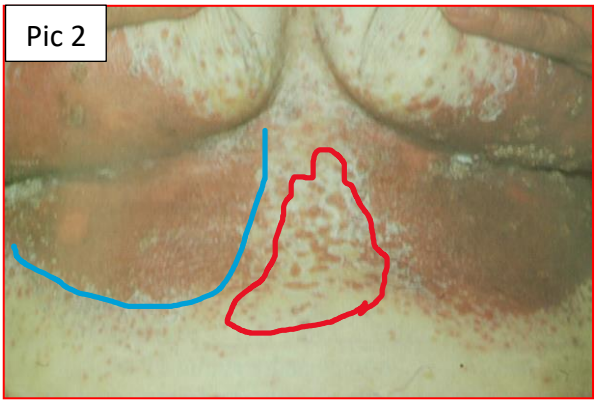
Pic1: Well-defined brownish scaly patches.

b- Candida Infection (intertrigo): (Pic2)

Affects moist and flexures
BUT diabetic, obese, immunocompromised, bedridden patients at higher risk.

Treatment: topical antifungal +/- steroid if the patient has eczema

Pic 2



Pic 2: Well defined erythematous scaly eroded patches with satellite lesion*.

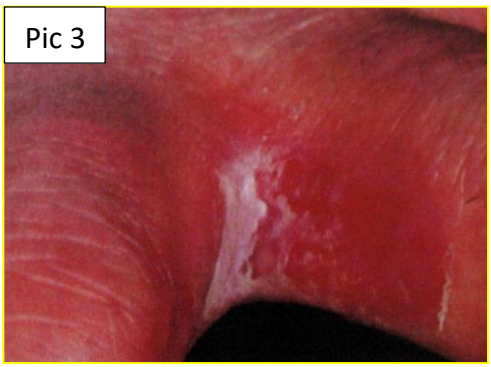
c- Tinea Pedis (Athlete feet): (Pic3,4)

fungal infection caused by superficial dermatophytes, It affects mainly adults, (patients with moist skin in between the toes like athletes and diabetics are at higher risk)

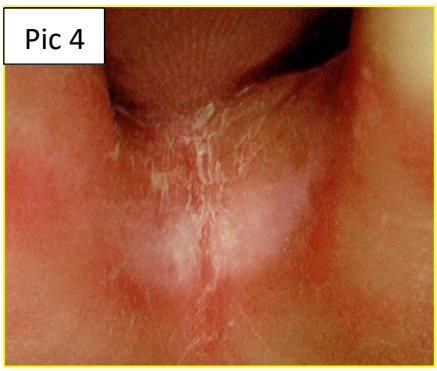
treatment:

- Education to dry up the skin
- Topical antifungal
- In severe cases systemic anti-fungal

Pic 3



Pic 4

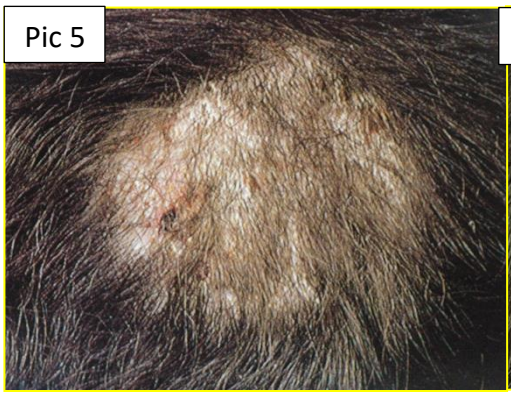


d- Tinea Capitis:

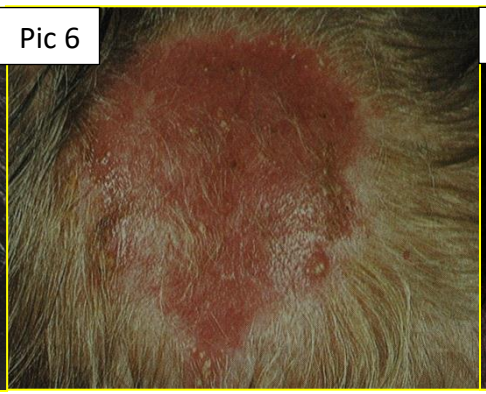
Mostly in children.

Treatment: systemic antifungal mainly:
Griseofulvin, then Terbinafine, itraconazole

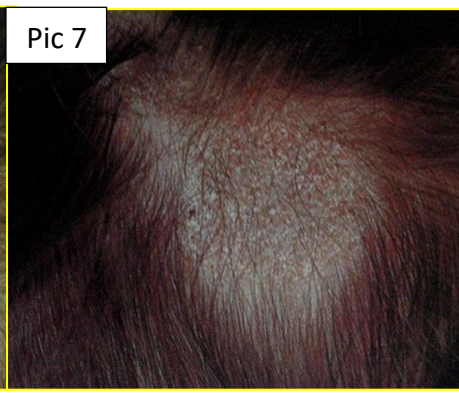
Pic 5



Pic 6



Pic 7



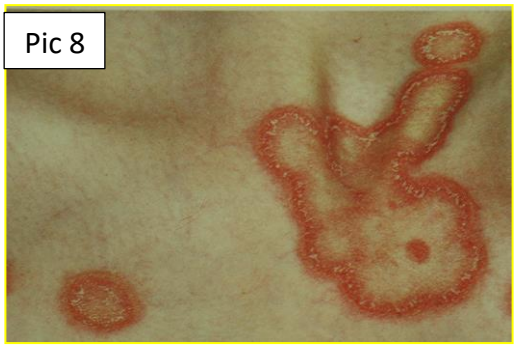
Pic 5,6,7: Well-defined erythematous scaly alopecic patches

e- Tinea Corporis: caused by superficial dermatophytes

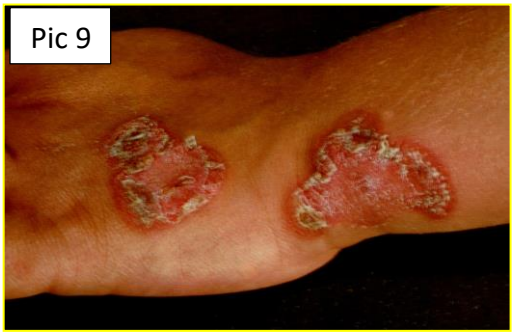
If Single lesion: may be treated with topical antifungal treatment but when multiple lesion systemic antifungal like Itraconazole

Pic 8,9: Scaly annular lesion.

Pic 8



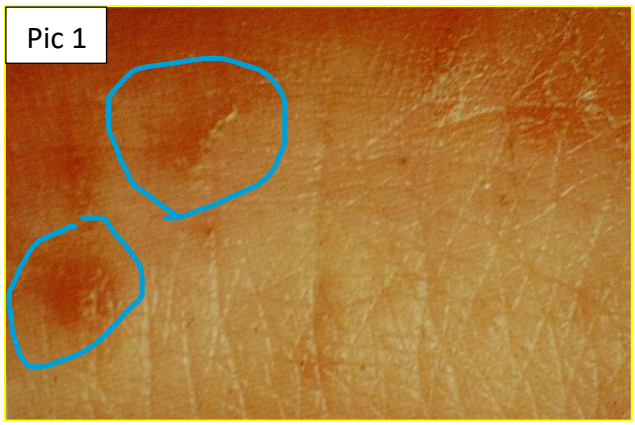
Pic 9



- All Tinea infections are caused by dermatophytosis **except tinea Versicolor** caused by Malassezia Furfur and its part of our normal skin flora

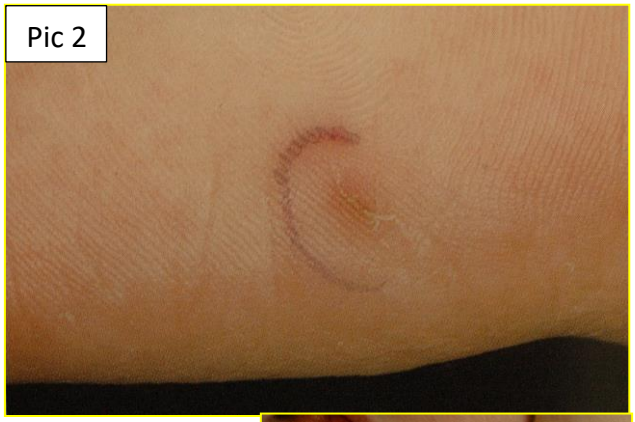
4- **INFESTATIONS**:

a- Scabies الجرب:**(pic 1,2,3)**

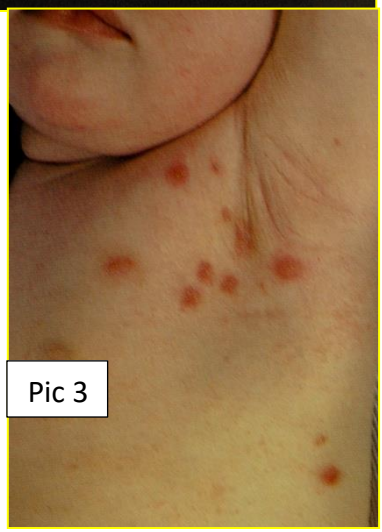

Pic 1

Causative organism:
Sarcoptes scabiei var. homini

Usually in groins / body folds / around nipples /genitalia.
السيناريو غالباً يكون مريض جته حكه بعد ما سافر والحكة تجيه أكثر شي بالليل


Pic 2

affects all age group and became more common in crowded close lived people like in shelters, homeless, prisoners, etc.


Pic 3

Treatment:
Topical: Permethrin / lindane cream, they apply it on the whole body for 8 hours. They need to apply it again after one week and one more time after two weeks, 3 in total to kill the newly hatched eggs
Close contacts should be involved in assessment and treatment if needed.
Oral treatment can be used specially in epidemic situation or in severe and immunocompromised patients: Ivermectin

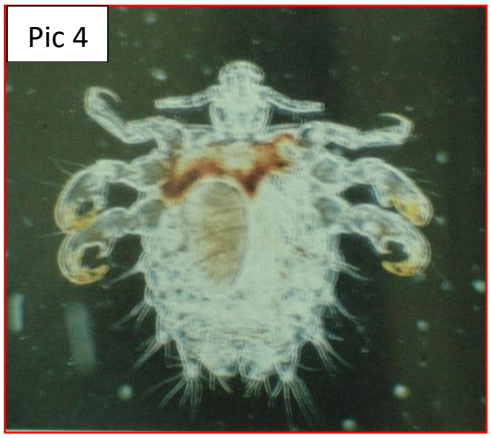
Pic 1: Tunnels (burros) inside epidermis

b- Pediculosis: القمل (**pic 4**)

Affect scalp or and sometimes groin.
Usually in children and homeless people
Also, close live people might be affected
Can cause Superficial bacterial infection

Treatment: same as scabies but in shampoo formulation to apply it over the scalp for 15 minutes the rains it with water, this can be repeated in 3 consecutive days to make sure for kill all insects.
Close contacts should be involved in assessment and treatment if needed.

Pic 4



TEST YOUR KNOWLEDGE:

What is the Most common organism that cause Folliculitis?
a. Candida
b. Streptococcus
c. Herpes Viruses
d. Staphylococcus

D

A mother of a 6 years old boy, presented to the dermatology clinic complaining of asymptomatic rash
over his face for few days. On examination, his vital signs were within normal range and skin
examination revealed few honey-colored crusted eroded pustules over the cheeks and Chin. What is the
most likely diagnosis?
A- Herpes zoster.
B- Impetigo.
C- Molluscum contagiosum.
D- Folliculitis.

B

Q19: Which one of the following diseases has the pathognomic feature of burrows:
A- Scabies
B- Impetigo
C- Herpes zoster
D- Tinea corporis

A