





BACTERIA COLLECTION

Bacterial Skin Infections

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Staph.

Strept.

Impetigo

Ecthyma

Folliculitis

Fruncules
Carbuncles

Cellulitis

Erysipelas

Impetigo

Definition:

It is a contagious superficial pyogenic infection of the skin caused by staphylococci & streptococci.

- It is more common in children & occurs mostly during summer

Clinical types impetigo:

1) Non-bullous Impetigo:

It may be caused by staphylococci, streptococci or both

2) Bullous Impetigo:

It is usually caused by staphylococci aureus
(Dermatolysin)

Types

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graph TD; A[Types] --> B[Bullous]; A --> C[Non bullous]; C --> D[Vesicular impetigo]; C --> E[Circinate impetigo]; C --> F[Crusted impetigo];
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Bullous

Non bullous

Vesicular impetigo

Circinate impetigo

Crusted impetigo

Non-bullous Impetigo

- Thin-walled vesicle on erythematous base, that soon ruptures & the exuding serum dries to form yellowish-brown (honey-color) crusts that dry & separate leaving erythema which fades without scarring



Non-bullous Impetigo

- **Sites:** Exposed parts eg. face , extremities & Scalp

Any part could be affected
except palms & soles.

- Regional adenitis with fever may occur in severe cases.



Circinate impetigo

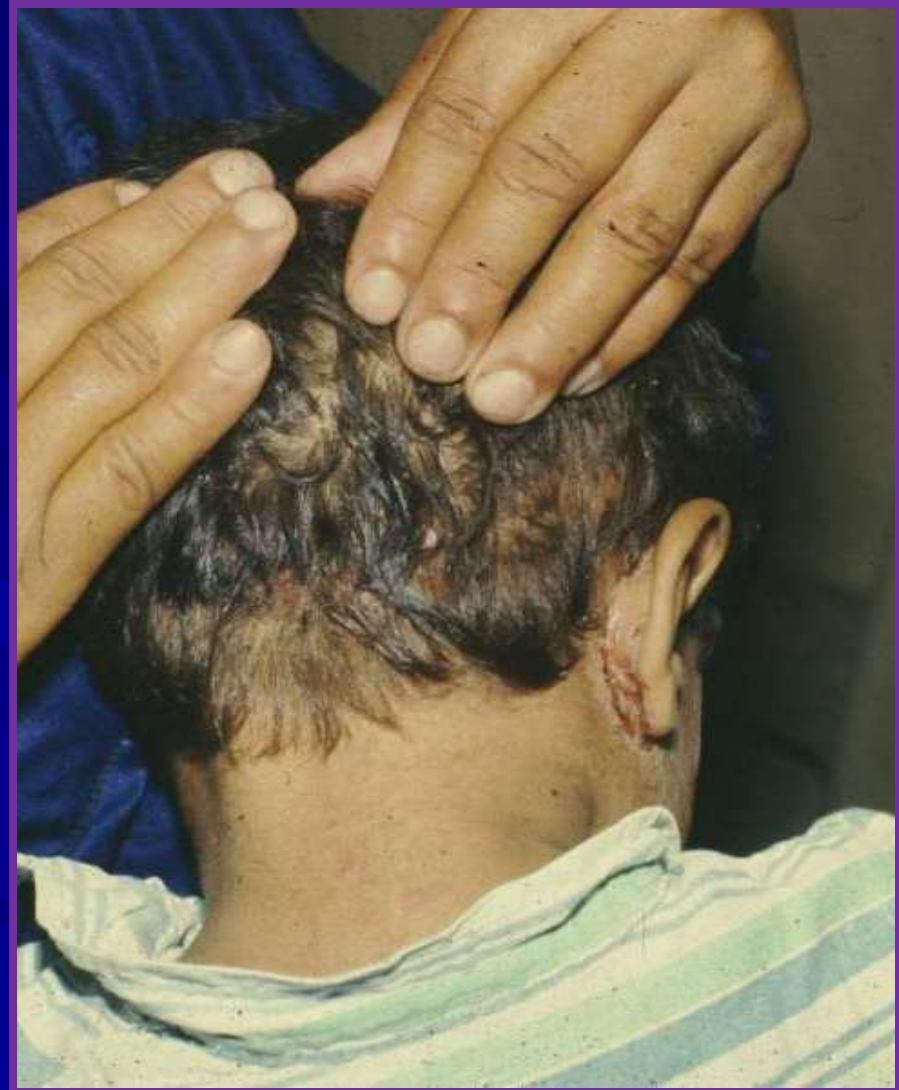
- Peripheral extension of lesion & healing in the center.
- D.D. of annular (circinate lesions)





Crusted impetigo

- On the scalp complicating pediculosis
- Occipital & cervical Lymph nodes are usually enlarged & tender



Bullous impetigo

- The bullae are less rapidly ruptured (persist for 2-3 days) & become much larger
- Contents are at first clear, later cloudy
- After rupture, thin, brownish crusts are formed





Complications

- **Glomerulonephritis:**

due to beta- hemolytic Streptococci

- **Scalded skin syndrome:**

This is a serious skin problem due to exotoxins of Staph aureus

Treatment

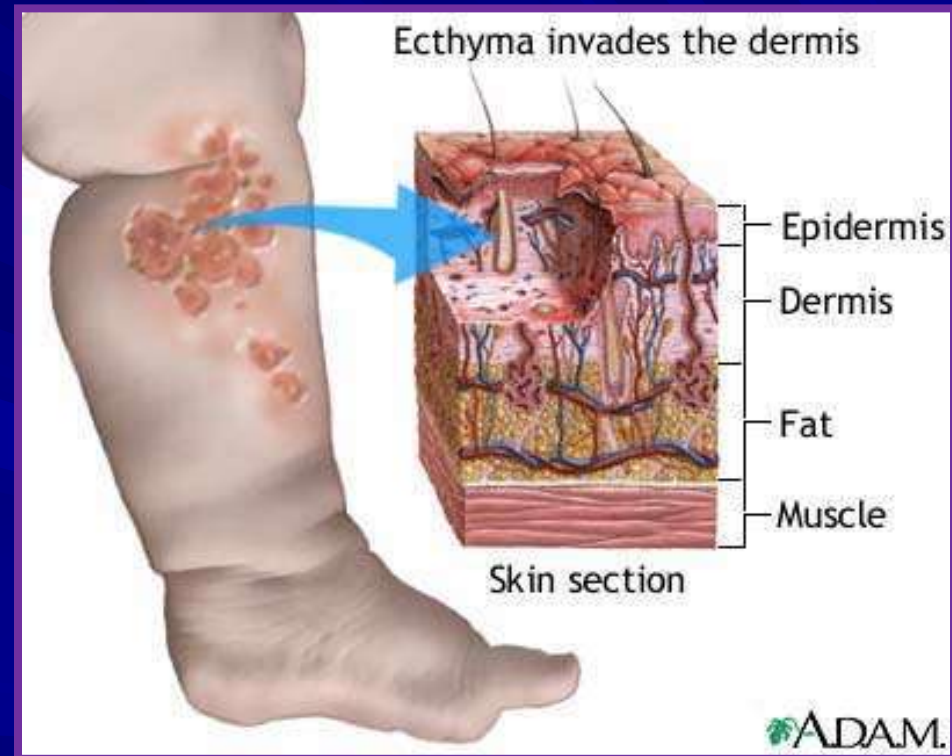
- * Control of predisposing factors such as
(insect bits, pediculosis, scabies)
- * Antiseptic solution such as :
(K-permanganate- Boric acid)
- * Topical antibiotics such as:
(Fusidic acid - Mupricin)
- * Systemic antibiotics such as:
(Flucloxacillin or erythromycin)

Indications of Systemic antibiotics

- Fever and constitutional symptoms.
- Extensive lesions.
- Lymphadenitis.
- Failure of topical treatment
- Suspected nephrogenic strains

Ecthyma (ulcerative impetigo)

- Adherent crusts, beneath which purulent irregular ulcers occur.
- Healing occurs after few weeks, with scarring
- more on thighs & legs and buttocks





Folliculitis

- Inflammatory disease of the hair follicles, which may be infectious or non-infectious
- Small pustules located at the base of hairs within the follicle structure

Superficial folliculitis (Bockhart's impetigo)

- Infection of the follicular orifices with *Staph. aureus*.
- It appears as fragile yellow pustules and affects mainly the extremities and scalp
- May complicate scabies



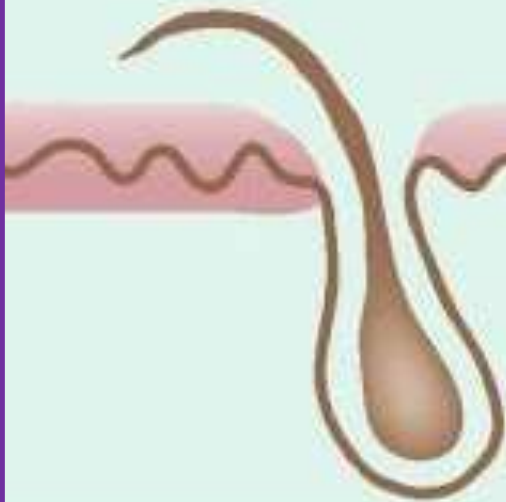
Sycosis vulgaris

- Perifollicular, chronic, pustular staphylococcal infection of the beard region
- Inflammatory papules and pustules
- Tendency to recurrence



Pseudofolliculitis

① Curved hair, curved follicle



② Curved hair re-entered dermis



③ Inflammatory response to hair keratin



Furunculosis / Boils

- **Boil** is an acute round, tender, circumscribed follicular staphylococcal abscess that generally ends in central suppuration
- **A carbuncle** is merely two or more confluent furuncles, with separate heads

Predisposing factors:

- * **Impaired integrity of the skin surface by**
 - Irritation
 - Friction
 - Hyperhidrosis
 - Dermatitis or
 - Shaving
- * **Presence of a contagion or autoinoculation from a carrier focus, usually in the nose or groin**
- * **Systemic disorder as**
 - * Malnutrition
 - * Blood diseases
 - * Diabetes
 - * AIDS

Clinical picture:

- The lesions begin in hair follicles, and often continue for a prolonged period by autoinoculation
- Some lesions disappear before rupture, but most undergo central necrosis and rupture through the skin, discharging purulent, necrotic debris
- The sites commonly involved are the face and neck, the arm, wrist and fingers, the buttocks and the anogenital region



Treatment of boils:

- * Topical and systemic antibiotics as for impetigo
- * Incision and drainage of some cases

Cellulitis and Erysipelas

- **Cellulitis** is an infection of the subcutaneous tissue
- **Erysipelas** is more superficial as it involves the dermis and upper subcutaneous tissue
- **Cellulitis** may extend superficially and erysipelas deeply so that the two conditions overlap
- **Cellulitis and erysipelas** are caused mainly by *Streptococcus pyogenes*

Clinical picture:

- Erythema, heat, swelling and pain or tenderness are constant features
- In erysipelas the edge of the lesion is well-demarcated and raised, but in Cellulitis it is diffuse
- Blistering and hemorrhage are more common in erysipelas
- Lymphangitis and lymphadenopathy are frequent
- The face and the legs are the most frequent sites affected
- Unusual complications
 - Gangrene
 - Metastatic abscesses
 - Grave sepsis





Erysipelas





Treatment:

Systemic penicillin and cephalosporins are usually effective

Erysipelas

- **Abrupt onset with fever.**
- **The skin is bright red.**
- **A spreading, hot, tender plaque with a well-defined border.**
- **Vesicles and bullae may be present.**

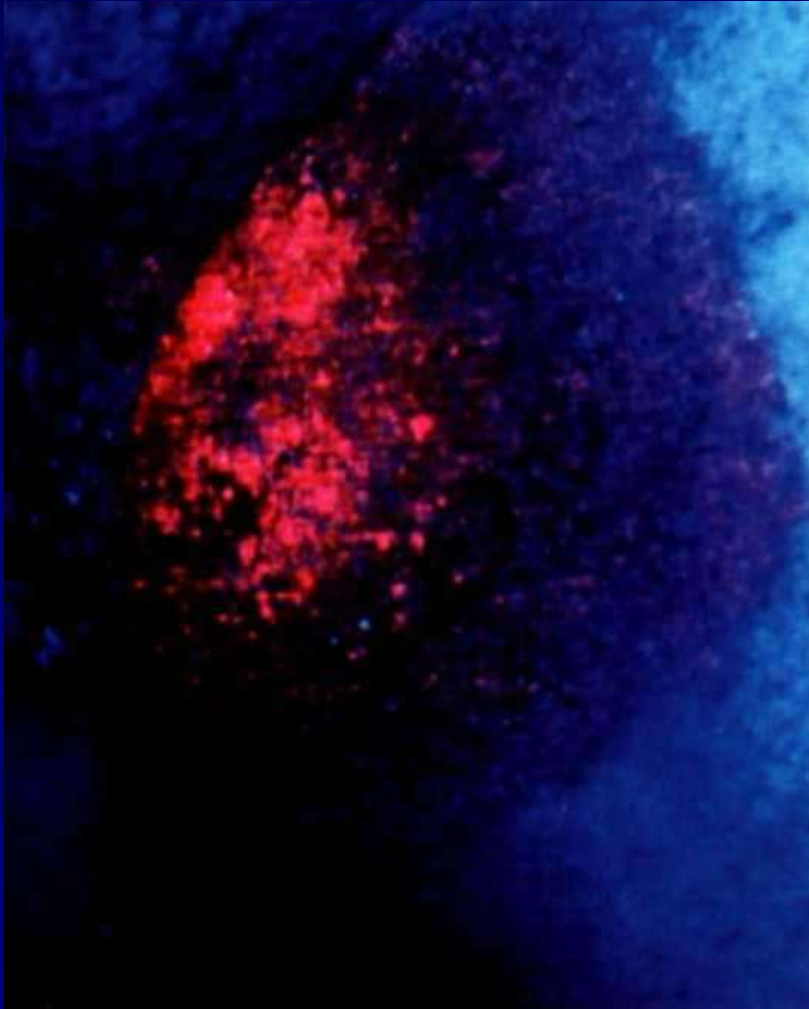
Cellulitis

- **A low grade fever may be present with a less abrupt onset.**
- **The skin is dull red.**
- **The border is less well defined, fades into the surrounding skin.**
- **No blisters are present.**

Erythrasma

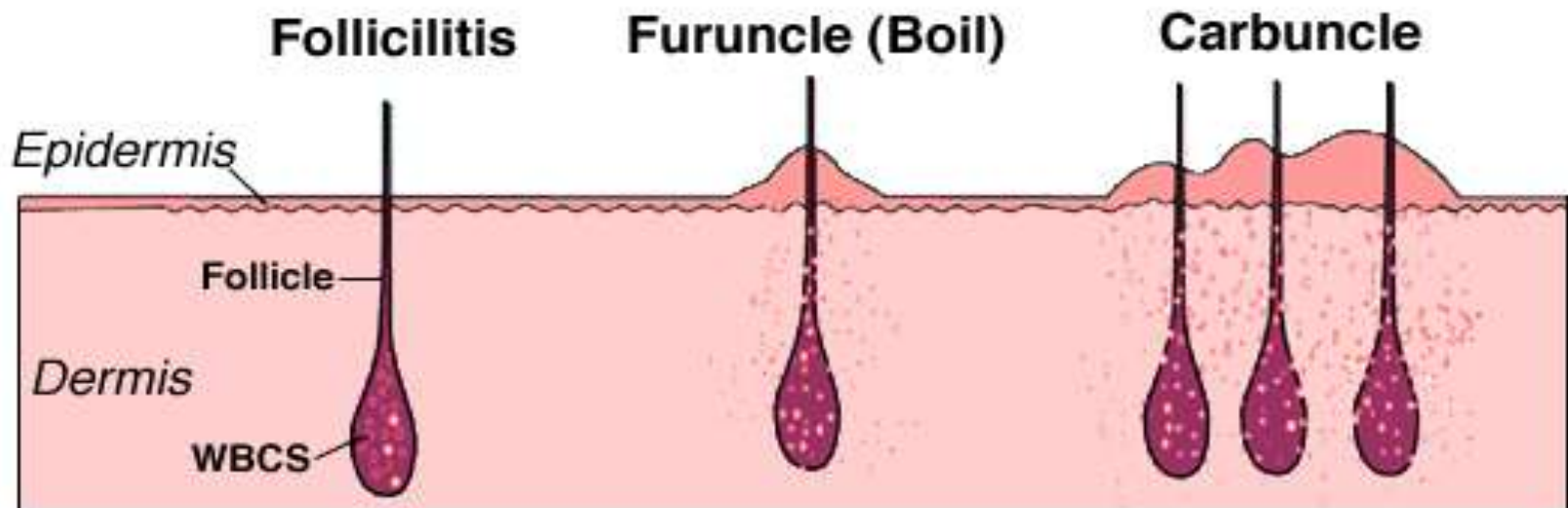
- *Corynebacterium minutissimum*
- sharply marginated, dry, brown, slightly scaling patches occurring in the intertriginous areas, especially the groins, axillae and the intergluteal and submammary flexures

Erythrasma (Wood'light)



Treatment of erythrasma

- 1- Topical azole antifungals.
- 2- Oral erythromycin in extensive cases.



1mm perifollicular
red papule or
pustule

Areas of sweat &
abrasion

Rx:
Tetracycline or
erythromycin
500 mg 2x/day

About 1cm tender
red papule or
fluctuant nodule

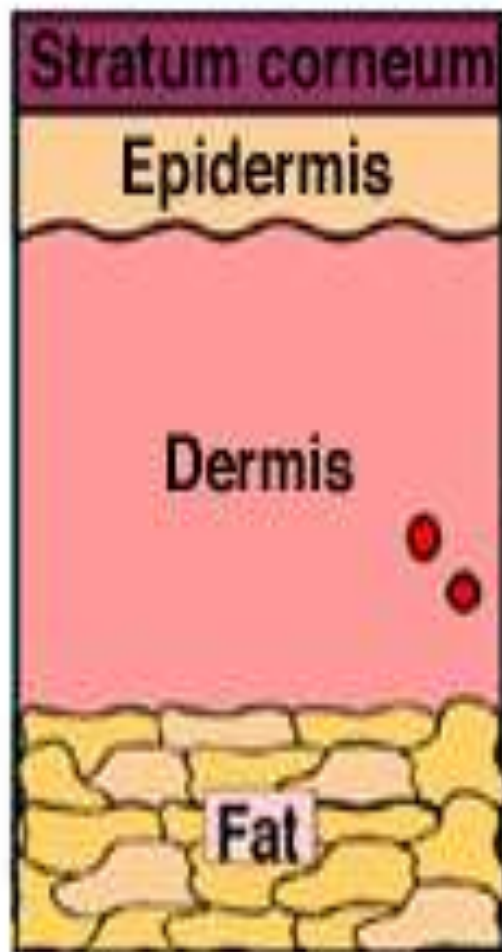
Areas of sweat &
abrasion

1. Incise &
curettage.
2. Dicloxicillin
250mg 4x/d for
10 days, or
Augmentin 500mg
2x/day for
10+ days

Several cm diam
red plaque

Nape of neck

1. Incise and
curettage or
excise
2. Dicloxicillin
250mg 4x/day
for 10+ days
or rampin
300mg 2x/day
for 10+ days
(Orange body fluids)



← Impetigo

Vesicles/honey colored erosions

← Ecthyma

Crusts/erosions

← Erysipelas

Tender, red plaque with sharp borders

← Lymphangitis

Red streaks (usually on an extremity)

← Cellulitis

Tender, red plaque

Thank you

