

BACTERIAL INFECTIONS

- **Bacterial flora of normal skin**

Resident flora -Grow on skin
Stable in number
Attached to skin

Transient flora -Unable to grow on skin
Exogenous source
Unattached to skin
Transient residents

Composition of normal flora

Aerobic-

Gram positive cocci (Staphylococcus)

Gram positive bacilli

Gram negative cocci (Acinetobacter)

Anaerobic-

Propionibacterium

P.acnes

P.granulosum

P.avidum

Bacterial infections

Impetigo

Ecthyma

Folliculitis (All caused by staphylococci

Furunculosis

Carbuncle streptococcus)

Erysipelas

Cellulitis

Erythrasma → caused by corynebacterium

Impetigo

- Superficial, contagious infection of skin

- Children

Two varieties-

- Bullous

- nonbullous



Etiology

Non bullous

-Staph./ Strept.



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Non bullous Impetigo



Non bullous Impetigo



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Bullous impetigo

- *S. aureus*



Bullous impetigo



Pathology

- Intra epidermal bulla
- Numerous neutrophils
- Few acantholytic cells



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Clinical features

- Erythematous,
vesiculo-pustules
with discharge
- Honey/straw-coloured/
golden yellow granular



- Peripheral extension with central healing
- Healing without scarring
- Regional lymphadenitis
- Fever



Ecthyma

- Deeper variant
- Chocolate colored crust
- indurated base with surrounding erythema
- Adherent crust



Ecthyma

Beneath crust -purulent ulcer

Healing with scarring



Ecthyma

Sites :

Lower limb



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Folliculitis

-Inflammation of hair follicle

Etiology-

-S. aureus (mainly)

-Gram negative rods



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Folliculitis

Predisposing factors

- Seborrhoeic dermatitis
- Trauma (sharing)
- Emotional stress
- Exfoliative dermatitis,
steroid intake, DM



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Folliculitis

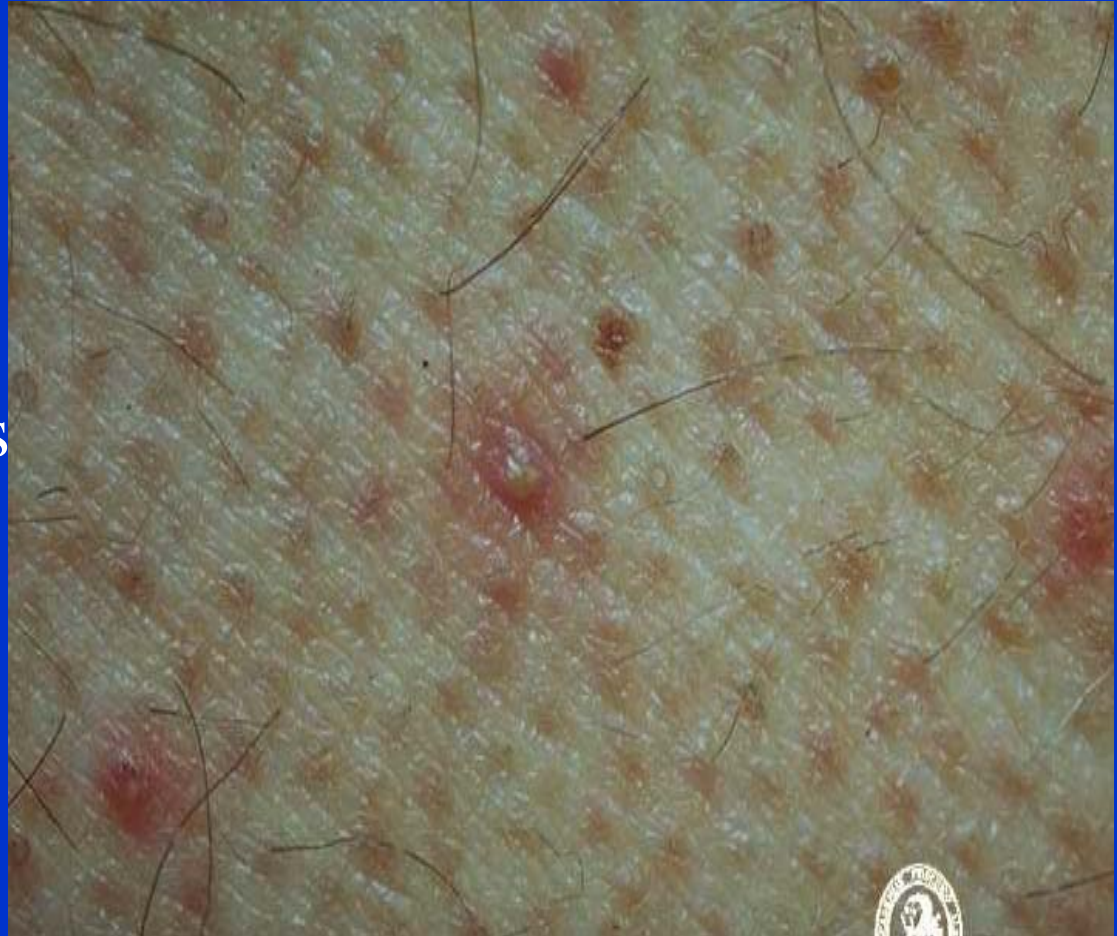
Clinical Features

- Single/ multiple
- Dome shaped papules/
pustules hair in centre
- Surrounding erythema
- Tender area



Clinical Features

- Inflammatory indurated nodule in few days
- Fever, constitutional symptoms

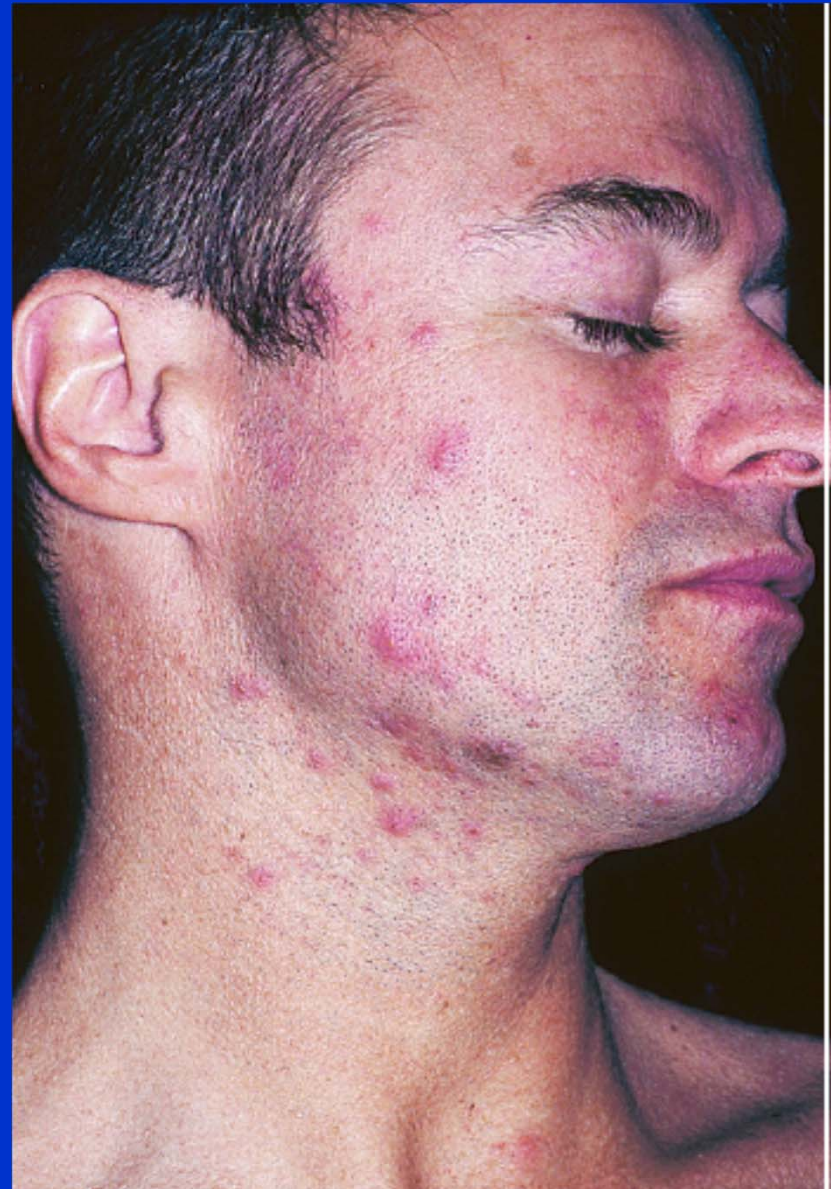


Superficial folliculitis

(Bockhart's Impetigo)

Terminal part of hair follicles
i.e.ostia

Pustules involving scalp,
hair margin,extremities



Superficial folliculitis



Deep folliculitis

(involving whole length
of hair follicle)

Sites of predilection:

-beard area

(Sycosis barbae)



Folliculitis

Herpes Simplex



Folliculitis

Pityrosporum ovale



Furunculosis (Boils)

Involvement of hair follicle
and perifollicular region
(dermis & subcutaneous)

S. aureus main agent

**Furunculosis =
folliculitis+perifolliculitis**



Abcess



Carbuncle

-Deeper infection of
contiguous follicles
with *S. aureus*



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Carbuncle

Clinical Features

Firm, tender, indurated lump

Multiple openings



Sites

Back of neck, shoulder,
hips, thighs

-Healing with scar

-Associated with DM,
exfoliative dermatitis etc



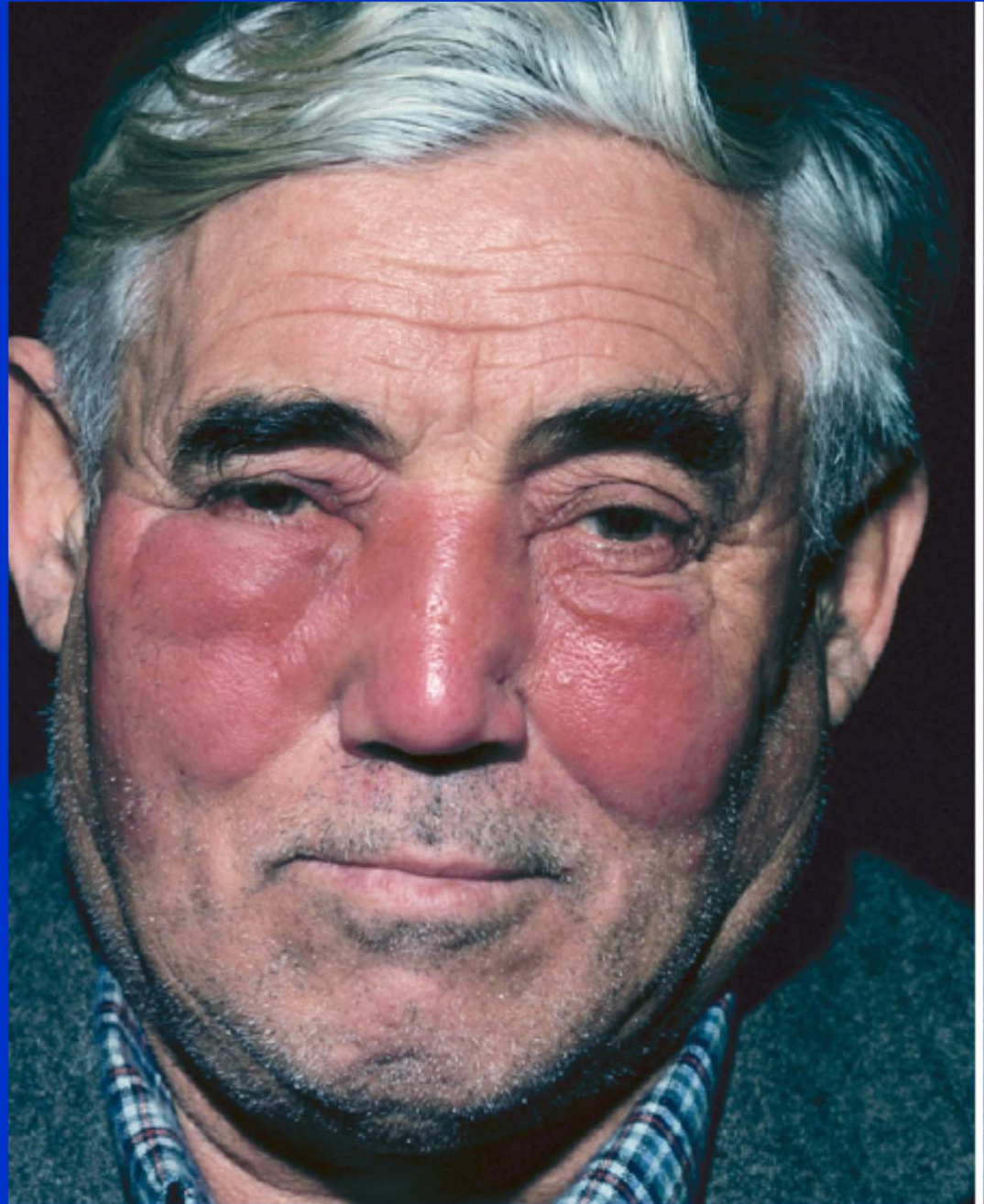
Erysipelas

Upper sub-cutaneous &
lymphatic tissue involvement



Etiology

- Streptococcal/Staph.
- Entry through wound, injury



Clinical Features

-Swelling

Spreads peripherally

Overlying skin- Tense

(Peau'd' orange)



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Sites

- Abd. wall (infants)
- Lower leg, face, ear (adults)
- Face/limb (child)



Cellulitis

- Acute infection of deeper subcutaneous tissue
- Streptococcus / S.aureus



Cellulitis

- Deeper variant of Erysipelas
- Indistinct border
- Presence of malaise, fever
- Association with DM



Necrotizing Fascitis



Management of Staph. & Strept. Infections

- Local hygiene
 - Treatment of Immuno-compromising factors
 - steroid
 - malnutrition
 - DM
- Avoid insect bites

Topical treatment

- Bacitracin
- Framycetin 1%
- Polymyxin B
- 1% Gentian violet
- Neomycin
- Mupirocin
- Sodium fusidate

Systemic treatment

- Penicillinase stable penicillin's
- Erythromycin i.e. Macrolides
- Cotrimoxazole
- Cephalosporins