Acne and Rosacea

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Acne

- Affects
  - >80% of adolescents
  - >40% of adults
- Associated with
  - Disfigurement
  - Loss of confidence
  - Depression
- Affects quality of life

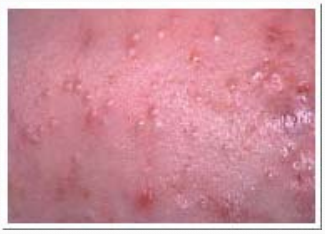
Pathogenesis

- i) increased sebum production,
- (ii) hypercornification of the pilosebaceous duct,
- (iii) colonization of the duct with *Propinebacterium acnes*,
- (iv) inflammation.

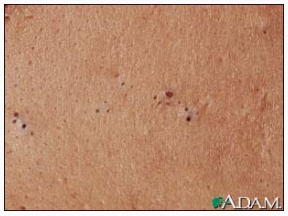
Clinical features

- Non-inflamed lesions (comedones) are the earliest lesions

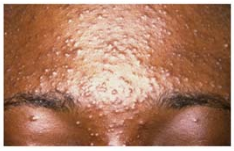
Closed comedones- white heads



Open comedones-Black heads

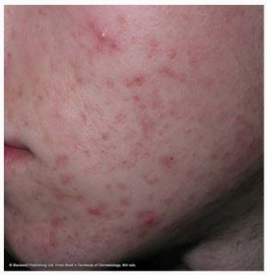


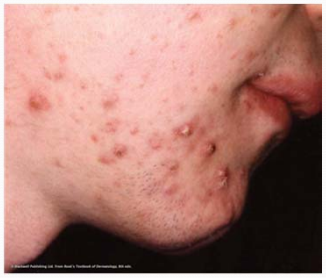
Sand paper comedones

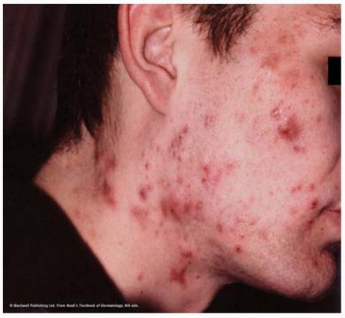


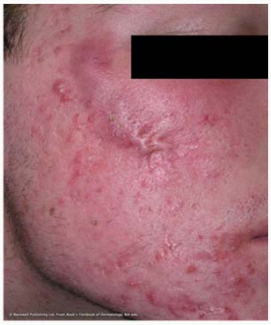
Submarine comedones

Papules and pustules









Clinical Grading

- Mild

Papular/pustular

- Moderate

Papular/pustular/nodular

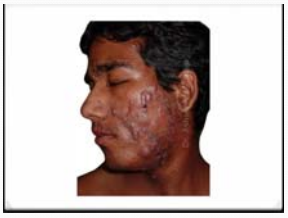
- Severe

Nodular/cystic

Severe acne variants

- Acne conglobata

Large abscesses with interacting sinuses, multiple cysts, leads to severe scarring



- Acne fulminans

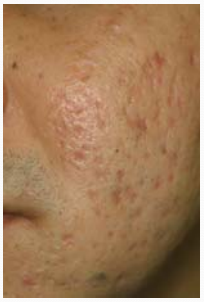
Inflamed suppurative nodules with ulcerations with fever, arthritis and leucocytosis, elevated ESR

Complications

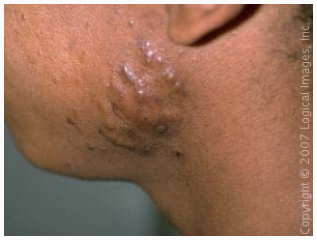
- Scarring

usually follows deep-seated inflammatory lesions

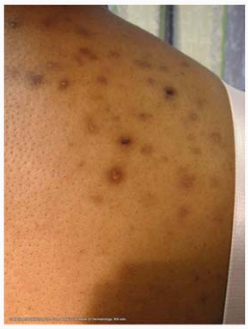
Atrophic



Hypertrophic



Post inflammatory hyperpigmantation



Choice of therapy

This is determined by the severity and extent of the disease

but should consider number of other factors

- duration of disease,
- response to treatments,
- predisposition to scarring,
- patient preference and cost
- Psychosocial factors

Should be tailored to an individual patient

Topical therapy

- Retinoid preparations
- Topical antibiotics
- Azeleic acid
- Benzoyl peroxide 2.5-10%
- Combination of topical agents (Clindamycin 1% and Benzoyl peroxide 5%, Adapalene and Benzoyl peroxide)

Tretinoin (0.01% gel, 0.025% cream, 0.1% cream)
Adapalene (0.1%)
Isotretinoin (0.05% gel)

Good for comedonal acne

- Use at night over entire face, exposure to the sun increases irritation
- Start slowly, increase contact time slowly
- Results in six to eight weeks.

Adverse affects

- Retinoid reaction
- Photo sensitivity
- Potential hyper/hypopigmentation
- Contraindicated in pregnancy

Topical antibiotics

2% Erythromycin, 1% Clindamycin,

- For pustular acne
- Decrease *P.acnes*
- Slow to act (Takes 4-6 weeks)
- Resistance often develops over time
- Best used in combination with topical retinoids/benzoyl peroxide (eg-Benzoyl peroxide and Clindamycin)

Benzoyl peroxide (2.5% gel, 5% cream, wash, 10% cream)

- Bactericidal, comedolytic and anti inflammatory action
- Adverse effects
  - Irritation
  - Bleaches clothing and hair

  (Benzoyl peroxide wash , use white towel, pillow cases)

Azeleic acid (15% gel, 20% cream, 20% lotion)

- Antibacterial
- Improve post inflammatory hyperpigmentation

- If topical Rx not effective, in moderate to severe acne

→ oral antibiotics

→ oral isotretinoin

→ hormonal

Oral antibiotics

- Doxycycline
- Minocycline
- Erythromycin
- Azithromycin

Doxycycline

- 50mg -100mg daily
- Effect evident after 6-8 weeks

- How to write a prescription for acne ?

Doxy cont

- Doxycycline 50mg (25) x 3 ? With meal, after meal , any time

- Cost – 50mg (25) 8.90 $

Minocyline

- 50-100mg daily

- Prescription
- Minocycline 50mg (60) - cost 18$

Erythromycin

- 250-500mg daily
- If planning pregnancy
- In Children

Duration of antibiotics

- Effect after 6-8 weeks
- Try for 3 months
- Reduce dose and maintain
- If relapse- need Roaccutane or Hormonal treatment
- Unlikely to cure acne

Isotretinoin

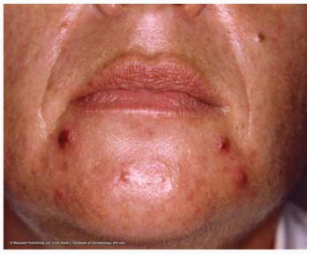
- Most effective treatment , cure acne
- Reduces sebum production
- Normalizes follicular keratinization
- Decreases inflammation

Indications

- Severe acne
- Mild to moderate acne , with evidence of scarring
- Relapse after antibiotics, hormonal treatments

Case

35 year old female with acne in the chin and jaw line for 2 yrs, Also has irregular periods



Suspect in females

- Late onset
- More on the jaw line
- Premenstrual flair
- Irregular periods

An endocrine evaluation may be indicated in adult females.

- Additional signs of hyperandrogenism

Irregular menses
Hirsutism
FPHL
Hyperseborrhoea

Initial tests should include

- Total testosterone, (very high levels suspect ovarian tumour)
- Follicle-stimulating hormone (FSH) and luteinizing hormone (LH)ideally be taken early in the menstrual cycle (day 1–3). (LH/FSH ratio can be elevated in PCOD)
- Serum dehydroepiandrosterone sulphate (DHEAS) (adrenal source) (DHEAS greater than 21.7 µmol/L may have an adrenal tumor)

Rx

- Spironolactone
- Cyproterone acetate

- Contraceptive pills

containing ethinylestrodiol (oestrogen) and an antiandrogenic progesterone

cyproterone acetate (Diane™-35, Estelle™ 35 and Ginet-84™)
drospirenone (Yasmin™, Yaz™)
dienogest (Valette™)

- Roaccutane

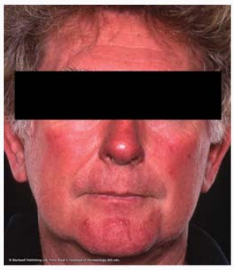
When to refer

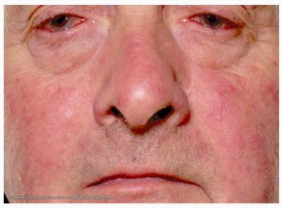
- scarring
- failed to respond oral antibiotics, each lasting three months and hormonal treatments
- severe variant of acne

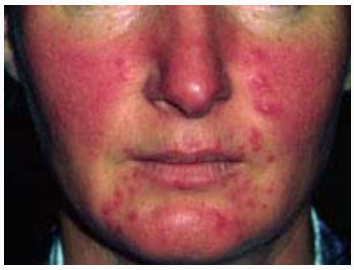
Rosacea

- flushing, erythema, papules and pustules, and telangiectasia. No comedones
- chronic lymphoedema, thickening of affected skin and rhinophyma are late complications
- Erythemato-telangiectatic type
- Papulopustular
- Phymatous
- Ocular

Mainly erythema







Treatments

- Topical - metronidazole gel/cream, tacrolimus cream
- Oral antibiotics- Doxycycline, minocycline, metronidazole
- Isotretinoin oral – low doses longer period
- Taelangiectasia- Vascular laser, IPL, Fine wire diarthermy

Thank you