Inflammatory Skin Conditions

- Eczema, acne and psoriasis are chronic inflammatory skin disorders that follow a relapsing and remitting course. There are many types of eczema but we shall just consider atopic eczema here.
- These skin disorders are not infectious.
- Management is aimed at achieving control and not providing a cure.
- Complications are mainly due to the psychological and social effects.
- Patient education is important in these chronic skin conditions and should concentrate on providing information about the nature of condition, aims of treatment and the available treatment options.

Learning outcomes:

Ability to describe the presentation, demonstrate assessment, formulate a differential diagnosis, instigate investigation and discuss how to provide continuing care of:

- atopic eczema

- acne

- psoriasis

Atopic eczema

Description

- Eczema (or dermatitis) is characterized by papules and vesicles on an erythematous base
- **Atopic eczema** is the most common type - usually develops by early childhood and resolves during teenage years (but may recur)

Epidemiology

- 20% prevalence in <12 years old in the UK

Causes

- Not fully understood, but a positive family history of atopy (i.e. eczema, asthma, allergic rhinitis) is often present
- A primary genetic defect in skin barrier function (loss of function variants of the protein filaggrin) appears to underlie atopic eczema
- Exacerbating factors such as infections, allergens (e.g. chemicals, food, dust, pet fur), sweating, heat and severe stress

Presentation

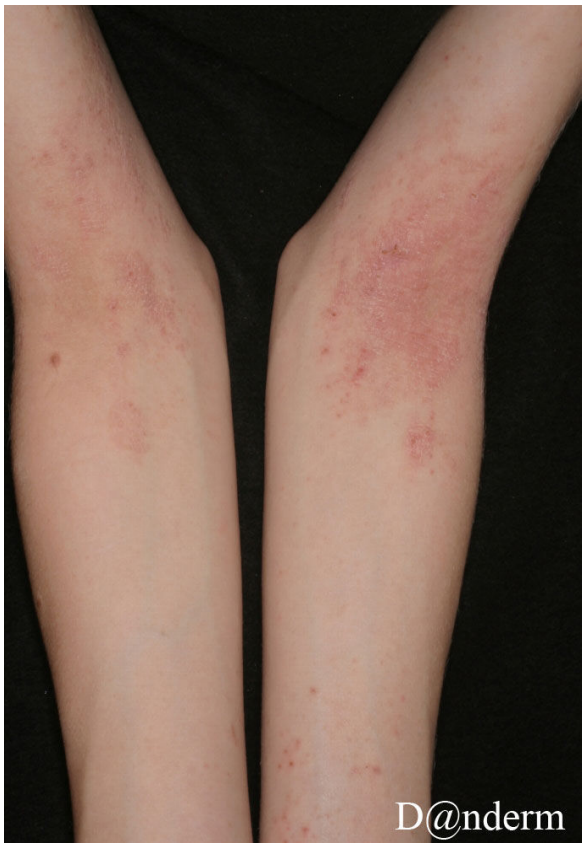
- Commonly present as itchy, erythematous dry scaly patches
- More common on the face and extensor aspects of limbs in infants, and the flexor aspects in children and adults
- Acute lesions are erythematous, vesicular and weepy (exudative)
- Chronic scratching/rubbing can lead to excoriations and lichenification
- May show nail pitting and ridging of the nails

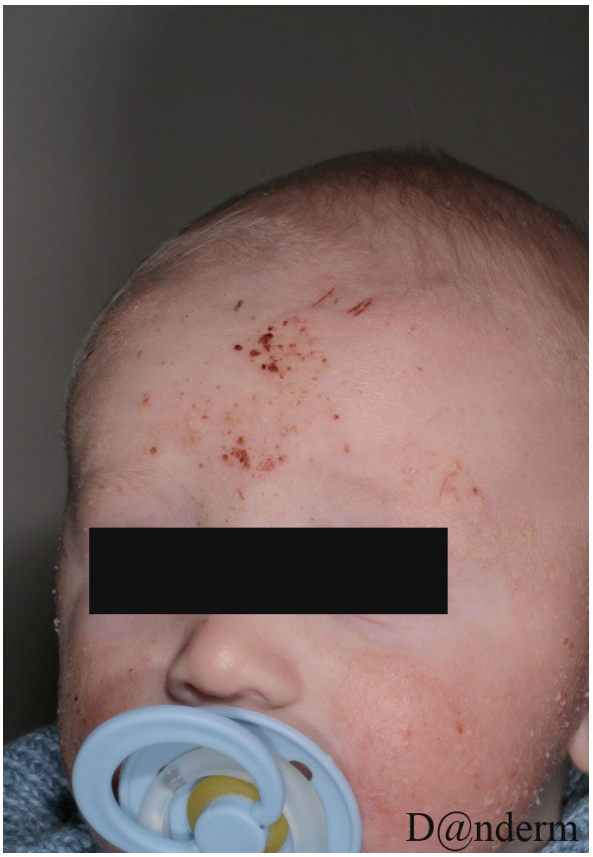
Management

- General measures - avoid known exacerbating agents, frequent emollients +/- bandages and bath oil/soap substitute
- Topical therapies – topical steroids for flare-ups; topical immunomodulators (e.g. tacrolimus, pimecrolimus) can be used as steroid-sparing agents
- Oral therapies - antihistamines for symptomatic relief, antibiotics (e.g. flucloxacillin) for secondary bacterial infections, and antivirals (e.g. aciclovir) for secondary herpes infection
- Phototherapy and immunosuppressants (e.g. oral prednisolone, azathioprine, ciclosporin) for severe non- responsive cases

Complications

- Secondary bacterial infection (crusted weepy lesions)
- Secondary viral infection - molluscum contagiosum (pearly papules with central umbilication), viral warts and eczema herpeticum (*see page 34*)



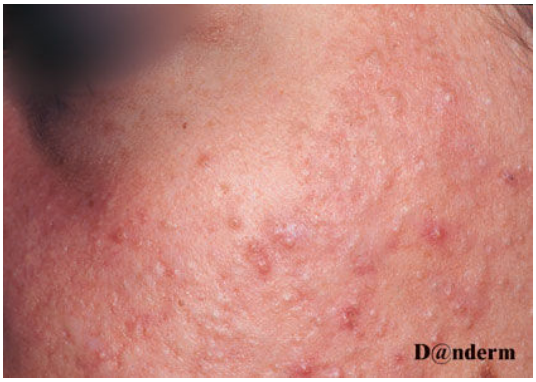


Atopic eczema

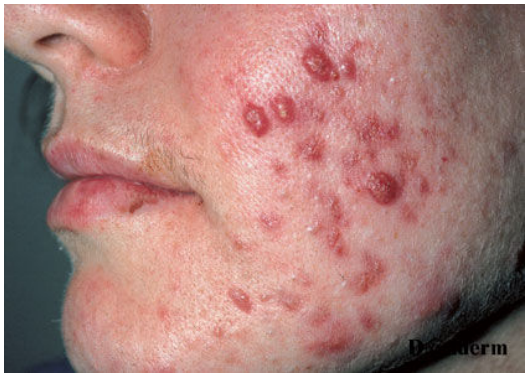
Further reading: NICE guidelines. Atopic eczema in children, Dec 2007. http://www.nice.org.uk/Guidance/CG57

Acne vulgaris

Description	• An inflammatory disease of the pilosebaceous follicle
Epidemiology	• Over 80% of teenagers aged 13- 18 years
Causes	• Hormonal (androgen) • Contributing factors include increased sebum production, abnormal follicular keratinization, bacterial colonization (*Propionibacterium acnes*) and inflammation
Presentation	• Non-inflammatory lesions (mild acne) - open and closed comedones (blackheads and whiteheads) • Inflammatory lesions (moderate and severe acne) - papules, pustules, nodules, and cysts • Commonly affects the face, chest and upper back
Management	• General measures - no specific food has been identified to cause acne, treatment needs to be continued for at least 6 weeks to produce effect • Topical therapies (for mild acne) - benzoyl peroxide and topical antibiotics (antimicrobial properties), and topical retinoids (comedolytic and anti-inflammatory properties) • Oral therapies (for moderate to severe acne) - oral antibiotics, and anti-androgens (in females) • Oral retinoids (for severe acne)
Complications	• Post-inflammatory hyperpigmentation, scarring, deformity, psychological and social effects



Comedones



Papules and nodules

Psoriasis

Description
- A chronic inflammatory skin disease due to hyperproliferation of keratinocytes and inflammatory cell infiltration

Types
- Chronic plaque psoriasis is the most common type
- Other types include guttate (raindrop lesions), seborrhoeic (naso-labial and retro-auricular), flexural (body folds), pustular (palmar-plantar), and erythrodermic (total body redness)

Epidemiology
- Affects about 2% of the population in the UK

Causes
- Complex interaction between genetic, immunological and environmental factors
- Precipitating factors include trauma (which may produce a Köebner phenomenon), infection (e.g. tonsillitis), drugs, stress, and alcohol

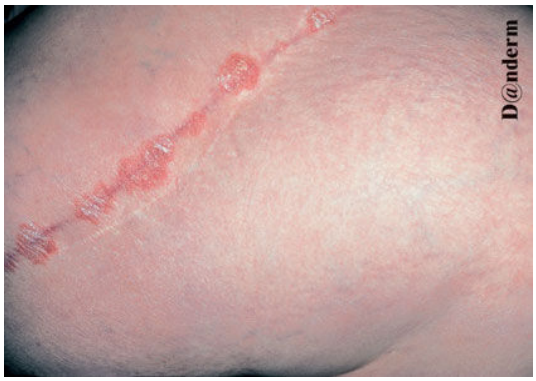
Presentation
- Well-demarcated erythematous scaly plaques
- Lesions can sometimes be itchy, burning or painful
- Common on the extensor surfaces of the body and over scalp
- Auspitz sign (scratch and gentle removal of scales cause capillary bleeding)
- 50% have associated nail changes (e.g. pitting, onycholysis)
- 5-8% suffer from associated psoriatic arthropathy - symmetrical polyarthritis, asymmetrical oligomonoarthritis, lone distal interphalangeal disease, psoriatic spondylosis, and arthritis mutilans (flexion deformity of distal interphalangeal joints)

Management
- General measures - avoid known precipitating factors, emollients to reduce scales
- Topical therapies (for localised and mild psoriasis) - vitamin D analogues, topical corticosteroids, coal tar preparations, dithranol, topical retinoids, keratolytics and scalp preparations
- Phototherapy (for extensive disease) - phototherapy i.e. UVB and photochemotherapy i.e. psoralen+UVA
- Oral therapies (for extensive and severe psoriasis, or psoriasis with systemic involvement) - methotrexate, retinoids, ciclosporin, mycophenolate mofetil, fumaric acid esters,

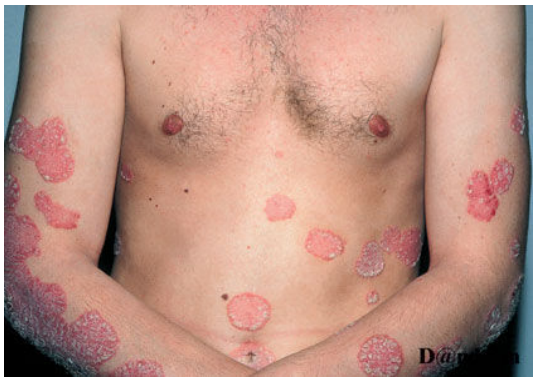
and biological agents (e.g. infliximab, etanercept, efalizumab)

Complications

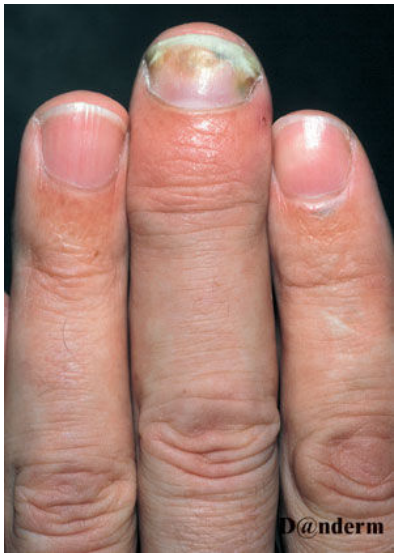
- Erythroderma (*see page 33*), psychological and social effects



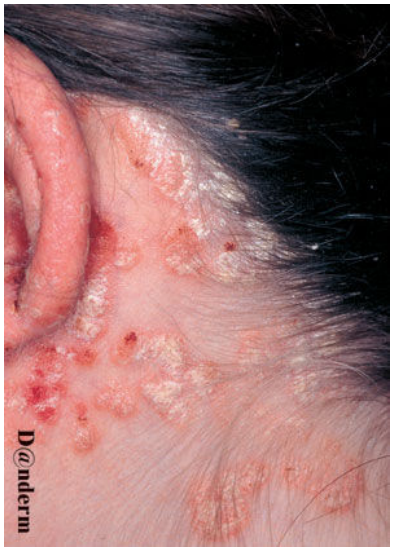
Köebner phenomenon



Plaque psoriasis



Nail changes and arthropathy



Scalp involvement