



Common Paediatric Dermatology Problems

Dr Gayle Taylor
Consultant Dermatologist
Leeds Teaching Hospitals NHS Trust

Common Paediatric Dermatology Problems

- Atopic Dermatitis
- Warts/Molloscum contagiosum
- Other skin infections
- Viral exantham
- Acne
- Psoriasis
- Birthmarks
- Lumps and bumps

Common Paediatric Dermatology Problems

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- Psoriasis
- **Birthmarks**
- Lumps and bumps

Vascular birth marks

- Capillary haemangiomas (Strawberry Naevus)
- Naevus Flammeus (Port Wine Stains)
- Naevus Simplex (Salmon Patch)

Strawberry Naevi Capillary Haemangioma

- Present at birth or develop within the first 6 weeks
- More common in premature infants
- Proliferative phase, then stabilise, then involute
- Most resolve by school age

Strawberry Naevi

Danger signs

- Near an eye: obstructing vision
- Rapid growth and ulceration
- Large deep component eg in the neck: airway occlusion
- Multiple strawberry naevi (10-20): higher risk of internal involvement: liver, spleen, brain

Strawberry Naevi Management

- For the majority: reassurance, no intervention
- Lesion near eyes, pressing on deep structures, ulcerating, tips of nose and ears: consider active treatment
- Propranolol: 625 micrograms per kilogram per dose (tid), 12-18 months
 - Instituted on the paediatric ward with BP, cardiac, blood sugar monitoring
- Topical Timolol: only useful for superficial lesions

Port Wine Stains

- Usually present at, or soon after, birth
- Acquired PWS can occur in adults
- Persist: often darken over time
- Can develop a deep component

Port Wine Stains

Danger signs

- Significant facial involvement
 - Glaucoma
 - Brain involvement (epilepsy)
 - Sturge Weber syndrome

Port Wine Stains Management

Small non-facial lesions

- No treatment 'required' but laser an option
- Smaller area to treat when young but general anaesthetic required
- Larger Facial Lesions
 - Consider referral ? Sturge Weber
- Consider referral if multiple PWS
- Or if there are associated abnormalities?
 - eg overgrowth of soft tissue (Klippel Trenaunay etc)

Salmon Patch Naevus Simplex

- Very common
- Rarely a diagnostic problem
- Reassurance

Pigmented Birth Marks

- Congenital melanocytic naevi
- Café au Lait spots
- Mongolian Blue Spot

Congenital melanocytic naevi

- Present at birth or develop within the first few months
- Darken and become more hairy with age
- Malignant melanoma rare before puberty
- Monitor congenital moles as you would acquired melanocytic naevi:
 - change in size, shape, colour, outline, bleeding, itch

Congenital melanocytic naevi

- Small, medium, large, giant
- Small (less than 5 cm): no action unless change (as for any mole)
- Medium: consider excision
- Large/Giant: riskiest lesions but excision often not possible

Acquired melanocytic naevi

- Start to develop end of first decade
- Flat small moles (junctional naevi)
- 50% determined genetically
- 50% related to sun exposure
- With age (3rd decade onwards): develop dermal component
- 4th decade: more intradermal naevi (lose colour, become raised off the skin)

Café au lait spots

- Up to 5 is considered normal
- Look for red flags for Neurofibromatosis 1
 - Family history (50 % spontaneous mutations)
 - More than 5 CAL spots
 - Axillary freckling (older children)
 - Palpable neurofibromas (older children)
 - Large head circumference

Mongolian Blue Spots

- Benign
- Common in Asian, Chinese races
- Can be confused with bruises

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Atopic Dermatitis

- Commonest inflammatory disease of childhood
- Prevalence: 15-20% UK children
- Genetic predisposition
- Much more prevalent past 30 years
- Most cases handled in primary care

Atopic Dermatitis

Natural History

- Onset: rare < 6 weeks of age
- Onset < 6 months of age in 75% cases
- General tendency to spontaneous improvement throughout childhood
- 60% (appx) clear by secondary school age
- Increased incidence of adult hand eczema

Atopic Dermatitis

Diagnosis

- Flexural distribution
- Reverse pattern eczema can occur
- Facial involvement prominent in infants
- Itchy
- Dermatographism
- Personal history of atopy (asthma/hayfever)
- Family history of atopy
- (Blood tests, allergy tests)

Atopic Dermatitis

DIFFERENTIAL DIAGNOSIS

- Eczema variants
 - Discoid eczema
 - Nodular prurigo
 - Seborrhoeic eczema
- Scabies
- Fungal infection

Atopic Dermatitis

Management: education

- Education, education, education
- Important role for trained nurse: explanation, demonstration and support
- Improves compliance
- Improves quality of life
- Reduces antibiotic and steroid use

Atopic Dermatitis

Education, education, education

- Education about the nature of the condition and the role of trigger factors
 - Dry skin
 - Stress
 - Infections: bacterial, viral, candidal
 - Irritants and allergens

Atopic dermatitis: triggers

Dry skin

- Emollients: mainstay of treatment
 - Analogy of the brick wall where mortar dried out
 - Hydration of skin to 'swell the bricks' replace the mortar and close the gaps
 - Barrier : layer of grease on the surface is a barrier which prevents infection/allergy penetration
 - The greasier the better (creams contain preservatives which can sting)
 - Essential to apply moisturiser even when the skin is clear: it is a preventor

Atopic Dermatitis Management

Dry skin: emollients

- Bath emollients: 'soften' the water and prevent other things (such as baby bubble bath) being used
- Soap substitutes: light emollients which have mild emollient effect and stop soaps/ shower gels being used
- 'Leave-on' moisturisers:
 - Wide range: lotions through to ointments
 - Some contain antiseptics

Leave on moisturisers

- Quantity:
- Infant: 125 g/week
- Small child 250g per week
- Large child 500g/week adult,
- Dry wraps: Comfifast, Clinifast, Skinnies
- Wet wraps

Dry skin: emollients

- Hydramol Ointment

MOST GREASY

- Epaderm ointment

- 50/50 (white soft paraffin/liquid paraffin)

- Diprobase ointment

- Diprobase cream

- Unguentum Merck

- Oilatum cream

- Doublebase cream

- Hydramol cream

- Zerobase cream

- Aveeno cream

- Dermol cream

- Dermol 500 lotion

- Balneum Plus cream

- E45 cream

- Aqueous cream

LEAST GREASY

Atopic Dermatitis Management

Dry wraps/Wet wraps

- Tubular bandages: Tubifast/stockinette
- Skin suits (Comfifast/Clinifast/Skinnies)
- No evidence of increased efficacy but widely used and mostly liked
- Reduce trauma to the skin
- Hold emollient in place
- Useful overnight. Day and night during flares
- Wet wraps: may get large absorption of steroid

Atopic dermatitis: triggers

Stress

- Stress
 - Illness
 - Immunisation
 - Tiredness
 - Psychological distress/worries

Atopic dermatitis management

Stress

- Childhood illnesses are inevitable: equip parents to recognise signs of skin flaring and step up treatment
- Immunisations: try to avoid when eczema active
- Tiredness: vicious cycle of eczema flare and poor sleep leading to eczema flaring: use of sedative anti-histamines, short-term (Ucerax)
- Psychological factors: family situation/school liason

Atopic Dermatitis: Triggers

Infection

- Bacterial (Staphylococcal)
 - Broken weepy skin, yellow crusts, pustules, red and hot
 - Confirm with skin swab (+/-nasal swab)
 - Exclude MRSA
 - Prevention: antiseptic containing bath oils, shower gels and emollients
 - Early treatment: topical antiseptics or combined steroid/antiseptics.
 - Avoid topical fusidic acid.

Atopic Dermatitis: Triggers

Infection

- Herpes (cold sore) Infection
 - Painful small blisters usually starting on the face and then spreading
 - If localised and child well, oral aciclovir
 - If extensive: consider admission for IV therapy
 - If eyes involved: urgent ophthalmological opinion (eye casualty). Risk of permanent corneal ulceration.

Atopic Dermatitis: Triggers

Infection

- **Candidal infection**
 - Around the mouth, neck creases, nappy area
 - Red, glazed sore skin occasionally with little pustules
 - Can be flared by antibiotic therapy
 - Treat with topical anti-yeast therapy (Canesten/Canesten HC, Timodine)

Atopic Dermatitis: Triggers

Irritants and Allergens

- Irritants
 - Heat
 - Cold dry weather
 - Central heating
 - Low humidity
 - Woollen clothing
 - Dust
 - Biological washing powders

Atopic Dermatitis: Triggers

Allergens

- Airbourne allergies
 - House dust mite, cats, dogs, pollens, moulds
- Contact allergens
 - Metal jewellery, fragrances
- Dietary allergens
 - Most common: dairy, eggs, nuts, wheat, soya, cod
 - Urticarial skin reaction, vomiting, diarrhoea, swelling, wheezing

Atopic Dermatitis

Allergy Testing

- No role for 'routine' allergy testing
- Thorough history
- Blood test: IgE, RASTS (specific IgE) to airborne allergens: HDM, pollens, pet dander, moulds. Occasionally foods: milk, eggs, fish, soya, wheat, PEANUT
- Prick tests: as above
- Both have false pos. and neg. rate
- Patch tests: sometimes indicated in longstanding disease

Atopic Dermatitis Management

Topical steroids

- Necessary to treat acutely inflamed or very itchy areas
- Parental anxiety needs to be addressed
- Use with emollients, never on their own
- Apply (ideally) 20 mins before emollients
- Don't rub: smooth (to avoid folliculitis)

Atopic Dermatitis Management

Topical steroids

- Weakest for shortest period possible but be realistic
- Use ointments unless the skin is infected (creams +/- antimicrobial)
- How much is enough: do fingertip units help?
- Monitor usage
 - Finger tip units:
 - 0.5g treats 2 adult hand prints: limited flexural eczema
 - Limited flexural eczema: 30g tube would last a month (b.d treatment)
 - 8 year old with 90% eczema: 65g per week

Atopic Dermatitis Management

Topical steroids: Mild flares/delicate sites

- Treat early: a mild steroid, twice daily, when eczema starts to flare, can avoid having to use a stronger steroid
- If the eczema doesn't improve in 3-4 days, step up to a stronger steroid.
- Once the eczema is improving for 3-4 days, reduce the strength of the steroid.
- Once the eczema has cleared, reduce the mild steroid to once daily, then alternate daily for 3-4 days after the eczema has cleared

Atopic dermatitis Management

Topical Steroids: moderate flares

- Treat early
- Moderate potency twice daily
- Once improved for 3-4 days, reduce the strength of the steroid and step down as for mild flares

Atopic dermatitis Management

Topical Steroids: severe flares

- Potent topical steroid twice daily until improving for 3-4 days (up to maximum 7-10 days), then reduce to moderate potency twice daily for 3-4 days, then to once daily 3-4 days
- EITHER down to mild or use moderate 2-3 times per week depending on past response
- Do not use potent steroids around the eyes
- Can be used short term (3-5 days) and very infrequently on the face

Atopic Dermatitis Management

Periorbital involvement

- Difficult area to treat
- Thin delicate skin: increased likelihood of steroid side effects (atrophy, cataracts)
- But uncontrolled disease associated with:
 - Conjunctival inflammation and damage
 - Corneal damage/keratoconus
- Aiming to use intermittent mild topical steroids with very occasional use of moderate potency
- Consider topical immunomodulators

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Atopic eczema: Summary

- Discourage use of soaps/detergents on infants' skin
- Regular moisturiser: prescribe enough
- Be familiar with 5-6 emollients with different greasiness
- Full emollient regime: bath oil, soap substitute, moisturiser
- Be familiar with steroid potencies
- Ointments rather than creams (unless infected)
- Severe/stubborn: short term potent and step down gradually

Atopic eczema: Summary

- Avoid topical antibiotics
- Use topical antiseptics, short-term, if necessary
- Consider sedative anti-histamine at night if poor sleep
- Consider checking ferritin, zinc, vitamin D
- If poor response, consider
 - Severe disease: refer
 - Secondary infection: refer if not responding
 - Undiagnosed allergy: refer
 - Poor compliance with topical treatment: frequent reminders, nurse input
 - High stress levels/unresolved family issues: enquire

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