Paediatric Dermatological Conditions

Infective Skin Conditions, Auto Immune Manifestations and Infestations

Pediatiese Dermatologiese Toestande

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Impetigo

Round confluent superficial blisters which rupture early and form crusts. Caused by - Staph & Strep organisms

Rx Topical and systemic antibiotics
Erysipelas

Superficial form of cellulitis involving the dermis and upper subcutaneous tissue. Usually due to S. pyogenes.
Staphylococcal Scalded Skin Syndrome

SSSS is a staphylococcal epidermolytic toxin mediated disease

Cutaneous tenderness and superficial widespread blistering & desquamation
Pityriasis Rosea

Acute self limited, papulo-squamous disorder. Rash is often preceded by a herald patch.

Papules exhibit a collarette of scale.
Mucous membrane is frequently involved in herpes associated EM. On the lip an identifiable target lesion
Stevens-Johnson Syndrome
Toxic Epidermal Necrolysis

TEN and SJS are similar and differs only in severity

Nikolski’s sign demonstrated
Erythema Nodosum

- Abrupt onset of tender red subcutaneous nodules on extensor surfaces of lower legs.
- Peak age 10 - 14 yrs
- Associated with TB, Streptococcus, Yersinia, Histoplasma, sulfonamides & oral contraceptives.

- Panniculitis (Inflammation of the subcutaneous fat).
- Septal panniculitis without vasculitis.
**Pediculosis Capitis**

- Infestation of the scalp by the human head louse, *Pediculus capitis*
- Pruritis is common in long term infestation, but first time infestation may produce no symptoms whatsoever
- Investigating the pruritis reveals the nits adhering to the hair
Pediculosis Capitis

- The nits that are easily seen are usually empty shells of eggs that have hatched - whitish to sandy-coloured
- Viable intact eggs are difficult to see due to their darker colour
- The cap or operculum of the egg always faces away from the skin or scalp
Pediculosis Capitis

- Head lice prefer clean, healthy hosts
- Not linked to poverty or poor living conditions
- Commonly found in people with good hygiene & grooming habits

Life Cycle
1: Adult female
2-4: Egg & embryo development
5: Larva ready to expel itself
6-8: Three instar stages of nymphs
Pediculosis Capitis

- Significant problem throughout the world
- High rates of infestation in developed as well as developing countries
- Both in temperate & tropical regions
- Head lice prevalence is rising in many developed countries

Female lice 20% larger than males
Males have brown bands traversing the abdomen
Pediculosis Capitis

- Infestation most common in children 3-11 yrs
  - Related to head-to-head and body contact
  - Sharing of objects to which lice cling
- More common in girls than boys
  - Length of hair has not been shown to be a significant factor in host preference among head lice
Pediculosis Capitis

- Anecdotal evidence that head lice may prefer certain blood types
- This may explain why within family or classroom, some children are more prone to infestation than others

Rx
- Mechanical removal of lice & nits with a nit comb, shampooing, blow-drying
- Most head lice products kill the adult lice but not the nits. Thus all topical treatments should be applied twice, 1 week apart

Shampoos
- Gamma benzene hexachloride
  - Gambex
    - High Rx failure rate due to tolerance and resistance
- Permethrin -Lyclear, Nitagon
  - Resistance also becoming a problem and treatment should also be applied twice
Scabies

- Human scabies is caused by the release of toxic or antigenic secretions of the female mite Sarcoptes scabiei var hominis
- Family Sarcoptidae, Class Arachnida
- Common worldwide
- Earliest and most common symptom is itching, particularly at night
- Most common sites
  - Hands, palms, wrists, buttocks, feet, soles, neck skin folds

Microscopic view of female scabies mite with ovum
A female mite exudes a fluid that dissolves the skin surface, forming a well in which she sinks.

In cool climates she forms a burrow of 0.5-5 mm where she remains for her life (± 30 days).

Females lay ± 3 eggs/day, requiring ± 4 days to hatch.

Time from egg laying to adult mite is 10-14 days.

Mites are not blood feeders, but are thought to feed on intercellular fluid.

Scabies

The eggs of the scabies mite are enormous, about $\frac{1}{3}$ of the body.
**Scabies**

- Earliest physical sign - small 1-2mm papules
- Scratching excoriations due to intense itching
- Various degrees of crusting and scaling
- Chronic form - lichenified skin or 2-4mm granulo-matous nodules
- Hyperpigmentation from chronic irritation