Parasitic Infestations of the Skin

Dr D. Tenea
Department of Dermatology
University of Pretoria
Scabies

- Scabere = to scratch (Latin)
- Common contagious disease - worldwide
- Caused by the mite Sarcoptes scabies var. hominis
- Acquired: overcrowding, poor personal hygiene, during sexual contact, homeless, prolonged physical contact
- All ages, races, socioeconomic groups
- Female scabies mite burrows in epidermis and lays eggs
- Incubation period = 1 month
- Hypersensitivity to mite faeces occurs after 4-6 weeks
- Itch is severe
- Polymorphism of lesions: short burrows, escoriated papules, eczematisation, pustules, nodules
- Sites of involvement: axillae, wrists, webspaces of fingers, toes, genitalia, buttocks
- Secondary infection is common
Treatment of Scabies

- Info to patients/parents
- All family members treated
- Benzyl benzoate emulsion (Ascabil) or 2-5% sulphur/UEA in infants and young children - over whole body from neck down to toes for 3 consecutive nights
- Alternatives:
  - Spregal spray (single application)
  - Topical antipruritic: Eurax-hydrocortisone (on face/neck in babies)
  - 5% Permethrin cream (wash off after 8-24 hrs)
  - Lindane lotion (leave on skin for 12-24hr, then wash off; repeat - 1 week)
- Do not prolong treatment as irritation, dryness and eczema may result
Crusted Scabies (Norwegian Scabies)

- Rare type of scabies caused by the same mite
- Severe crusted, hyperkeratotic lesions containing thousands of mites and eggs - very contagious
- Altered host response to their presence (mentally retarded, physically incapacitated, immunosuppressed)
- Dx may be missed
- Treatment:
  - patient should be isolated
  - all nursing staff in contact with patient treated with a scabicide
  - several applications of scabicide
  - systemic treatment with Ivermectin
  - systemic antibiotics if secondary infection
Pediculosis Capitis

- Worldwide infestation, all social classes
- Caused by blood-sucking, wingless, six-legged insects (which live only on hairs of head and feed on scalp)
- Acquired by head to head contact
- All ages (more in children 3-11 yrs); more frequently in girls
- Prevalent in Blacks in Africa
- Clinical features - intense pruritus
  - nits (behind ears, occiput, nape of neck),
  - impetigo (scalp pyoderma as secondary infection)
- Treatment - 2 applications 1 week apart:
  » Permethrin 1% - 10 min topically; fair response
  » Melathion 0.5% - 8-12 hr; excellent response
  » Topical Ivermectin - 10 min; good effect
  » Oral Ivermectin - excellent response
  » Lindane 1% - 10 min application; poor response
Incorrect designation - crab lice/phirus pubis (infestation may involve beard hairs, eyelashes, axillae, perianal region)
- Transmitted by sexual contact or close physical contact
- Female crab lice stick their eggs to hair shafts
- Clinical features
  - pruritus of pubic region
  - ± erythema around hair follicles
  - excoriations + secondary infection
  - regional lymphadenopathy
  - festooning of eyelashes/axillary hairs with lice eggs
- Treatment
  - pediculocides in aqueous base - 2 applications 1 week apart
  - white soft paraffin several times a day for 2-3 weeks - for eyelashes
Pediculosis Corporis

- Body lice (pediculus humanus humanus)
- The body or clothing louse is a parasite of poverty and poor hygiene (homeless, refugees, victims or war, natural disasters)
- Body lice do not live or lay eggs on people but in their clothing
- Are vectors of epidemic typhus, trench fever, relapsing fever
- Clinical presentation
  - intense itching, excorations
  - pinpoint red macules, papules, crusts
  - secondary infection (impetigo) and lymphadenopathy
- Treatment
  - bathing of the patient
  - disinfection of all clothing, bedding
  - delousing with Permethrin powder
Papular Urticaria

- Typical response to the bites of various arthropods (mosquitoes, mites, fleas, bed bugs)
- Small urticated papules surmounted by a tiny vesicle; very pruritic; excoriations
- They arise as a result of hypersensitivity reactions to antigens in saliva of insects
- Bed bugs
  - uncommon nowadays
  - live in dilapidated houses
  - feed on blood of sleeping occupants
  - reaction to bites
    - papular urticaria
    - bullous lesions
    - eczematization
    - secondary infection
Larva Migrans (sandworm)

- Known as creeping eruption
- Caused by larvae of the cat and dog hookworm Ankylostoma brasiliense and A. caninum
- Hot, humid, tropical climate (Natal beaches)
- Children > adults
- Acquired by walking barefoot on contaminated soil
- Lesions - oedematous, erythematous, serpiginous burrows
  - very pruritic
  - usually on feet, buttocks, thighs
- Migration of larvae - 1-2cm per day; begins 4 days after penetration; rarely beyond the skin
- Self limited
- Complications - impetigo, allergic reaction
- Treatment
  - Albendazole (Zentel) - 15mg/kg/day BD
  - Ivermectin 12mg/kg/day single dose
  - Topical 10-15% Thiabendazole sol./oint.