Dermatophytoses

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Khaitan BK, et al.: Dermatophytoses

**Standard Treatment Workflow (STW)**

**DERMATOPHYTOSIS**

**ICD-10:B35.9**

**DEFINITION**
- Superficial fungal infection caused by dermatophytes
- Affects keratin-bearing structures i.e. skin, nails, and hair

**DIAGNOSIS**
- For doubtful cases: KOH microscopy of scales shows the typical septate hyphae
- Culture and other advanced methods are not required in routine practice

**GENERAL MEASURES**
- Advise the following dos and donts to the patient:

**DOS**
- Take daily bath with regular bathing soap and normal temperature tap water
- Dry skin well after bath
- Wash clothes separately in hot water and dry inside out in the sun

**DON'TS**
- Do not share towels and clothes
- Do not re-wear clothes before washing

**TREATMENT**

**TOPICAL ANTIFUNGAL**
- For limited involvement in cases of Tinea corporis and cruris
  - Use
    - Clotrimazole 1% cream: B0
    - Miconazole 2% cream: BD
    - Terbinafine 1% cream: BD
    - Ketoconazole 2% cream: BD
  - For extensive disease it is not possible to use antifungal creams, so advise oral antifungals
  - Or
  - Active antifungal creams over most tinea lesions only (in addition to systemic drugs)

**TREATMENT IN CHILDREN**
- Always look for infection in the parents/guardians
- Prefer topical antifungal for younger children
- Oral antifungals (weight based dosing)
  - Terbinafine: 3.6mg/kg/day or
    - >20kg: 60.5mg
    - 10-20kg: 40mg
    - <10kg: 25mg
  - Griseofulvin: 10–30mg/kg/day

**REFER TO A DERMATOLOGY/SURGICAL CLINIC IF**
- Very extensive disease
- No improvement with treatment after 4 weeks
  - Cure not achieved
  - Persistent/progressive treated lesions and good compliance
  - Recurrent infection
  - Co-morbid conditions present
  - Pregnancy/labour/hepatic disease/renal disease or cardiac disease
  - Reversion of prolonged topical/oral parenteral steroid use
  - Remember: The lesions are often modified by self-application of topical steroids combination products
  - The "ring" may be incomplete
  - Scaling may be minimal
  - Pigmentation may be prominent
  - Do not use any steroid containing cream

**ADVICE ALL PATIENTS TO**
- Take treatment regularly as advised and never stop without consultation after obtaining some relief to prevent relapse
- Do not self medicate. This can make the infection difficult to treat
- Do not use any steroid containing OTC cream from chemist on your own

**ONYCHOTRICHOSIS**
- Discororation of nail with build up of keratinous debris under the nail plate
- Generally affects isolated nails asymmetrically
- The whole nail may crumble in advanced cases
- Look for simultaneous involvement of palmaros
- Ask for diabetes signs of peripheral vascular disease

**GENERAL MEASURES**
- Advise patients to:
  - Keep affected nails trimmed as they are fragile and trauma prone
  - Keep separate nail clippers
  - Avoid any cosmetic nail procedures, pedicure/manicure
  - Inform the patient that it might take several months after treatment completion for a completely normal looking nail to appear and in severe cases, a cosmetically acceptable result may not be achieved

**TREATMENT**

**SYSTEMIC ANTIFUNGAL**
- ALWAYS TREAT TILL ALL LESIONS HAVE COMPLETELY RESOLVED
- This may take between 3-6 weeks or more depending on the extent of infection and previous treatments used, longer when palmaros also involved or history of prolonged steroid use
- Follow-up regularly every 2 weeks
- Oral antifungals for adults
  - Tab Terbinafine 250mg BD
  - Tab Griseofulvin 500mg BD
  - Tab Fluconazole 50-150 mg OD
  - For relapse of paronychiae
    - Tab Cetirizine 10mg HS or Tab CP-M 6mg TDS

**TREATMENT IN PREGNANCY**
- Preferably use only topical antifungals
- Maximum safety data for use of
  - Miconazole cream
  - Clotrimazole cream
- Limited safety data in humans to recommend use of any systemic antifungal during pregnancy esp first trimester if required, fluconazole may be preferred

**MANAGEMENT AT TERTIARY CARE**
- Individualises treatment
- Treat till complete clinical and mycological cure (KOH negativity)
- Send for culture, speciation and antifungal susceptibility testing, if available

**TOPICAL TREATMENT (OVER LIMITED AREA ONLY)**
- In addition to previously mentioned:
  - Luliconazole cream topically OD
  - Itraconazole cream topically BD

**SYSTEMIC TREATMENT**
- Cap Itraconazole 100-200 mg/day
- Tab Terbinafine 250mg BD

**ENSURE TREATMENT FOR ADEQUATE DURATION TO PREVENT RELAPSE**

This STW has been prepared by national experts of India with feedback considerations for various levels of healthcare systems in the country. These broad guidelines are advisory, and are based on expert opinions and all such advice is given in good faith. These may be variations in the management of an individual patient based on his/her specific condition, as decided by the treating practitioner. Until we are notified by direct or indirect consequence, kindly visit the website of DHI for more information. © 2024 JEFI S88

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