

PEDIATRIC DERMATOLOGY

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PERLECHE

ETIOLOGY

- ◆ *Candida albicans*
- ◆ Other *Candida* species

PERLECHE

CLINICAL FINDINGS

- ◆ Erythema
- ◆ Maceration
- ◆ Fissures

PERLECHE DIAGNOSIS

- ◆ Potassium hydroxide examination
- ◆ Gram stain
- ◆ Culture

PERLECHE THERAPY

- ◆ Avoid excessive moisture
- ◆ Topical anti-fungal
 - ketoconazole cream 2% bid
- ◆ Topical antibacterial
 - mupirocin 2% bid
 - retapamulin 1% bid
- ◆ Topical corticosteroid
 - Hydrocortisone ointment 1%

TINEA CORPORIS

ETIOLOGY

- ◆ *Trichopyhton tonsurans*
- ◆ *Trichophyton rubrum*
- ◆ *Trichophyton mentagrophytes*
- ◆ *Microsporum canis*

TINEA CORPORIS

CLINICAL FINDINGS

- ◆ Usually single lesions
- ◆ Asymmetrical distribution if multiple
- ◆ Annular, circular or oval lesions
- ◆ Erythematous lesion with scale
- ◆ Vesiculopustular lesion may be seen

TINEA CORPORIS

DIAGNOSIS

- ◆ Potassium hydroxide examination
- ◆ Culture

TINEA CORPORA THERAPY

- ◆ Topical anti-fungals for 2 weeks
- ◆ Oral anti-fungals if the infection persists or multiple lesions are present

Griseofulvin-2-3 week course

Fluconazole-1-2 week course

Itraconazole-1-2 week course

Terbinafine- 1-2 week course

TINEA CAPITIS

ETIOLOGY

- ◆ *Trichophyton tonsurans*
- ◆ *Microsporum canis*
- ◆ *Microsporum audouini*
- ◆ *Trichophyton violaceum*

TINEA CAPITIS

CLINICAL FINDINGS

- ◆ Patchy alopecia with scale
- ◆ Diffuse scale
- ◆ Crusting or pustules
- ◆ Occipital lymphadenopathy
- ◆ Kerion may develop

TINEA CAPITIS

DIAGNOSIS

- ◆ Clinical findings
- ◆ Potassium hydroxide examination
- ◆ Wood's light examination
- ◆ Fungal culture

ANTIMYCOTIC AGENTS

ACTIONS

- ◆ Griseofulvin – decreases microtubule fcn
- ◆ Fluconazole – decreases sterol 14-alpha demethylation
- ◆ Itraconazole – decreases fungal sterol synthesis
- ◆ Terbinafine – decreases squalene epoxidase, increases squalene

GRISEOFULVIN

- ◆ >40 years experience
- ◆ 15-20 mg/kg/day (microsized)for tinea capitis
- ◆ 6-8 week course for tinea capitis
- ◆ Good safety profile
- ◆ Available in liquid formulation 125mg/5ml
- ◆ Administer with fatty foods
- ◆ Efficacy low for onychomycosis

GRISEOFULVIN – SIDE EFFECTS

- ◆ Headache
- ◆ Gastrointestinal disturbances
- ◆ Urticaria
- ◆ “ID” reaction

FLUCONAZOLE

- ◆ Available since 1990's
- ◆ Imidazole
- ◆ 6 mg/kg/day for tinea capitis
- ◆ 20 day course for tinea capitis
- ◆ Liquid formulation 40mg/ml

FLUCONAZOLE – SIDE EFFECTS

- ◆ Gastrointestinal disturbances

ITRACONAZOLE

- ◆ Available since late 1980's
- ◆ Imidazole
- ◆ 3-5 mg/kg/day for tinea capitis
- ◆ 4-6 week course for tinea capitis
- ◆ Liquid formulation available – 10mg/ml
- ◆ Capsule should be administered with food

ITRACONAZOLE – SIDE EFFECTS

- ◆ Gastrointestinal disturbances
- ◆ Cyclodextrin can cause diarrhea
- ◆ Hepatotoxicity
- ◆ Headache

TERBINAFINE

- ◆ Developed in 1979
- ◆ Allyamine
- ◆ 62.5 mg/day (10-20kg); 125 mg/day (20-40kg); 250 (>40kg) for tinea capitis
- ◆ 2-4 weeks for tinea capitis
- ◆ No liquid formulation available
- ◆ Tinea capitis due to *Microsporum canis* responds slowly

TERBINAFINE – SIDE EFFECTS

- ◆ Gastrointestinal disturbances
- ◆ Taste loss (1.1-2.8%)

TINEA CAPITIS – ADJUNCTIVE THERAPY

- ◆ Selenium sulfide shampoo 1%, 2.5%
- ◆ Ketoconazole shampoo 1%, 2%
- ◆ Antibiotics
- ◆ Corticosteroids

References

- ◆ Andrews MD, et al: Common Tinea Infections in Children. *Am Fam Physician* 2008;77:1415-1420.
- ◆ Gonzalez U et al: Systemic Antifungal Therapy for Tinea Capitis in Children. *Cochrane Database Sys Rev* 2007;4:CD004685.

References

- ◆ Gupta AK, et al: Meta-analysis: Griseofulvin Efficacy in the Treatment of Tinea Capitis. *J Drugs Dermatol* 2008 ;7:369-372.
- ◆ Zhang AY, et al: Advances in Topical and Systemic Antifungals. *Dermatol Clin* 2007;25:165-183.

HERPES SIMPLEX

ETIOLOGY

- ◆ Herpes simplex type 1
- ◆ Herpes simplex type 2

HERPES SIMPLEX

CLINICAL FINDINGS

- ◆ Direct inoculation of any cutaneous surface
- ◆ Prodrome of itching, stinging, or burning
- ◆ Grouped vesicles with an erythematous surround
- ◆ May become vesiculopustular lesions

HERPES SIMPLEX DIAGNOSIS

- ◆ Tzanck smear
- ◆ Fluorescent antibody
- ◆ Culture

HERPES SIMPLEX THERAPY

- ◆ Analgesics
- ◆ Prevent secondary bacterial infection
- ◆ Topical docosanol 10% cream 5X's/day
- ◆ Topical penciclovir 1% cream 5X's/day
- ◆ Oral anti-virals-episodic or suppressive therapy

Reference

- ◆ DiCarlo A, et al: Eczema herpeticum in pregnancy and neonatal herpes infection. *Obstet Gynecol* 2008;112:455-457.

PEDICULOSES

ETIOLOGY

- ◆ Pediculus humanus capitis
- ◆ Pthirus pubis

PEDICULOSES

CLINICAL FINDINGS

- ◆ Pruritus
- ◆ Lice
- ◆ Excoriations
- ◆ Nits

PEDICULOSES

THERAPY

- ◆ Vaseline to eyelashes
- ◆ Pyrethrins
- ◆ Lindane
- ◆ Permethrin 1% cream rinse
- ◆ Malathion

PEDICULOSIS CAPITIS TREATMENT

- ◆ Petrolatum
- ◆ Mayonnaise
- ◆ Trimethoprim/sulfa
- ◆ Permethrin 5% cream
- ◆ Off-label Ivermectin 200 micrograms/kg
dose po once

Reference

- ◆ Speare R, et al: Comparative efficacy of two nit combs in removing head lice (*Pediculus humanus var. capitis*) and their eggs. *Int J Dermatol* 2007;46:1275-1278.
- ◆ Leung AK, et al: Pediculosis capitis. *J Pediatr Health Care* 2005;19:369-373.

CONGENITAL SYPHILIS

- ◆ Transplacental mode of transmission
- ◆ With early untreated syphilis, 40% of pregnancies result in spontaneous abortion, stillbirth, or perinatal death
- ◆ Transmission can occur at any stage
- ◆ Rate of transmission 60-100% during secondary syphilis

CONGENITAL SYPHILIS

- ◆ Desquamation
- ◆ Vesicobullous lesions
- ◆ Condylomata lata
- ◆ Maculopapular or papulosquamous eruptions
- ◆ Rhagades

CONGENITAL SYPHILIS

- ◆ Treatment for proven or highly probable disease
 - Aqueous crystalline penicillin G, 100,000-150,000U/kg/day, administered as 50,000U/kg/dose IV,q12hours during first 7 days of life then every 8 hours for a total of 10 days
 - OR -Penicillin G procaine 50,000U/kg/day IM (1dose/day) for 10 days

Reference

- ◆ Fowler CI, et al: Racial and ethnic disparities in prenatal syphilis screening among women with Medicaid-covered deliveries in Florida. *Matern Child Health J* 2008;12:378-393.

SCABIES

CLINICAL FINDINGS

- ◆ Pruritus, especially at night
- ◆ Eczematous patches and papules
- ◆ Finger web spaces, axillae, wrists, belt-line, and groin area
- ◆ Characteristic burrows
- ◆ Vesicular and nodular lesions in infants
- ◆ Crusted scabies in immunosuppressed patients

SCABIES

DIAGNOSIS

- ◆ Scraping with a #15 scalpel blade or Nasal Fomon Knife
- ◆ Mineral oil preparation
- ◆ Microscopic examination

SCABIES THERAPY

- ◆ Cover hands with socks or mittens
- ◆ Apply under the nails
- ◆ Apply to affected areas of the scalp in infants
- ◆ Oral antipruritics

SCABIES THERAPY

- ◆ Permethrin 5%
- ◆ Lindane 1%
- ◆ Crotamiton 10%
- ◆ Sulfur 15%
- ◆ Off label-Ivermectin 200 micrograms/kg po
single dose

SCABIES-References

- ◆ Leone PA: Scabies and Pediculosis Pubis: An Update of Treatment Regimens and General Review. *Clin Infect Dis* 2007;44 Suppl 3:S153-159.
- ◆ Strong M, et al: Interventions for Treating Scabies. *Cochrane Database Syst Rev* 2007;18:CD00320.
- ◆ Tesner B, et al: The Pathophysiologic Basis of Scabietic Nodules *J Am Acad Dermatol* 2007;57:S56-57.