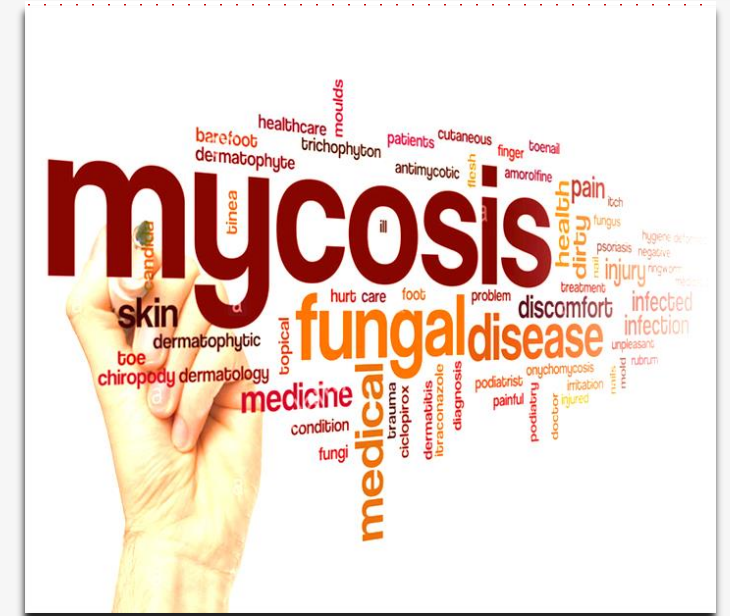


CUTANEOUS MYCOSES

ATHELET'S FOOT



GALGOTIAS
UNIVERSITY

Recap:

- ❑ *Introduction on mycoses*
- ❑ *Different type of mycoses*
- ❑ *Etiologic agents of mycoses*
- ❑ *Examples of different fungal infections*

Contents:

- ❑ *Introduction*
- ❑ *Type of cutaneous mycoses*
- ❑ *Dermatophytosis*
- ❑ *Cause of ringworm*
- ❑ *Athlete's Foot (Tinea pedis)*
- ❑ *Etiology and Epidemiology of Tinea pedis*
- ❑ *Symptoms and types*
- ❑ *Diagnosis and Treatment*
- ❑ *Prevention and Control*

Introduction:

- Superficial fungal infections affecting skin, hair or nails.
- No tissue (life) invasion, however variety of pathological changes occurs.
- Fungi causing mycoses commonly called Dermatophytes, which belong to about 3-4 genera.



Type of cutaneous infections:

- **Dermatophytosis:** Ringworm of the scalp, glabrous skin and nails. Dermatophytes (*Arthroderma*, *Lophophyton*, *Microsporum*, *Nannizzia*, *Trichophyton*, *Epidermophyton*).
- **Cutaneous Candidiasis:** Yeast (*Candida* spp.) infection of skin, mucous membrane and nails. Also others species of genus *Debaryomyces*, *Kluyveromyces*, *Meyerozyma*, *Pichia*, etc.
- **Dermatomycosis:** Infection due to non-dermatophyte moulds. *Neoscytalidium*, *Scopulariopsis*, *Hendersonula*.

Dermatophytosis:

- Dermatophytes - "skin plants" are etiological agents. Three important anamorphic genera, (i.e., *Microsporum*, *Trichophyton*, and *Epidermophyton*), are involved in ringworm.
- Also called keratinophilic fungi - "Loves keratin". One of the major protein found in nails, hair, skins and horns.
- Ringworm - disease called 'herpes' by the Greeks, and by the Romans 'tinea' (which means small insect larvae).

Causes of ringworm

- Ringworm can be caused by three different types of fungi: *Trichophyton*, *Microsporum*, and *Epidermophyton*.
- The infection may also spread through contact with infected humans or animals.
- The infection is commonly spread among children and by sharing items harboring the fungus.

Infections

Sites of infection	Name of infection
Ringworm of the scalp	<i>Tinea capitis</i>
Ringworm of body	<i>Tinea corporis</i>
Jock itch	<i>Tinea cruris</i>
Athlete's foot	<i>Tinea pedis</i>
Ringworm of nails	<i>Tinea unguium</i>
Ringworm of hand	<i>Tinea manuum</i>

Athlete's foot

- Also known as Tinea Pedis, Tinea Pedum, Moccasin Foot and Ringworm of the foot.
- Its contagious fungal infection that affects the skin on the feet.
- Sites: toenails and hands.
- Athlete's foot.



Etiology and sources of Athlete's Foot infection

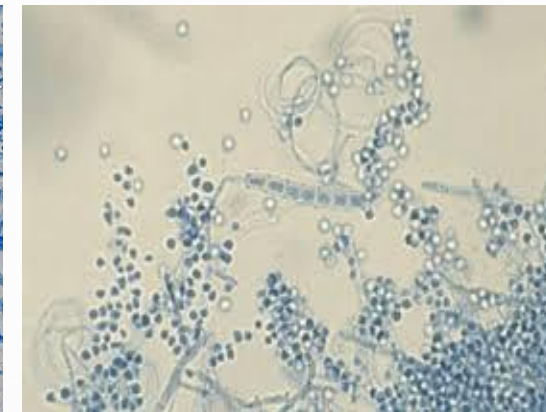
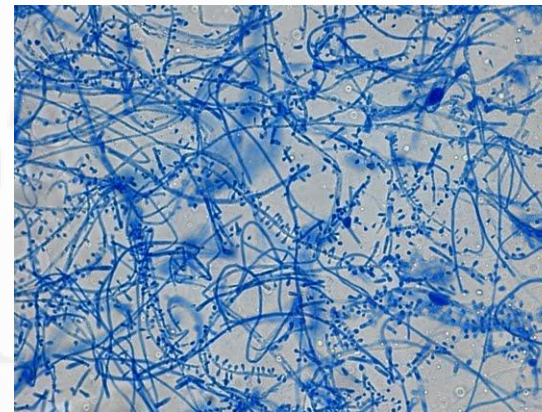
- Causative agents: *Trichophyton* spp.
- *Trichophyton rubrum* or *T. mentagrophytes*
- Yeast
- Occurs when:
 - ❖ Contact with infected person
 - ❖ Surface contaminated with fungus
 - ❖ Damp areas
 - ❖ Swimming pools



Trichophyton rubrum



Trichophyton mentagrophytes



Epidemiology

- The disease is probably the most common among dermatophyte infections.
- About 70% of the World population with dermatophyte infection had this infection.
- Athlete's foot is most common among adolescents and in individuals who wear occlusive shoes.
- The rate of infection in Men are 2–4 times more often than women.
- The risk of getting athlete's foot increases with age.
- Most cases occur after puberty. Infection is most common between the ages of 20 and 50 years.
- It is more common in the summer months.

Symptoms

- Itching
- Blisters
- Cracking and peeling of skins
- Dry skin
- Raw skin
- Discolored



Types:

Athlete's Foot

Toe Web Infection

Occur between toes, skin that is scaly, pealed and cracked



Moccasin Type Infection

Bottom skin of the heel becomes thick and cracks



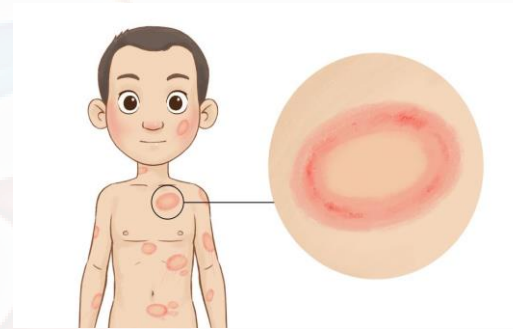
Vesicular Type Infection

Fluid filled blister under the skin (bottom of foot)



Diagnosis

➤ Visual inspection of skin



➤ Microscopy (10% KOH method)



➤ Isolation of the fungus from infected tissue



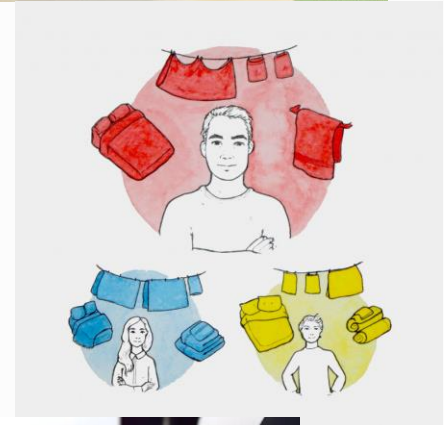
Treatment

- **Tropical Antifungal Medications:** Miconazole, Terbinafine, Clotrimazole,
- **Oral Antifungal Medications:** Itraconazole (Sporanox), fluconazole (Diflucan)
- **Home care:** Soak feet in salt water
- **Alternative therapy:** Tea tree oil



Prevention & Control

- Wash your feet
- Wash towel and sock
- Use antifungal powder
- Don't share towels, shoes, etc.
- Wear sandals or shoes in wet areas.
- Wear shoes that have air circulation.



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