

بِسْمِ اللّٰهِ الرَّحْمٰنِ الرَّحِيْمِ
الْحٰمِدُ لِلّٰهِ رَبِّ الْعٰالَمِينَ
كَفَرَ بِاللّٰهِ مَنْ لَمْ يَعْلَمْ
وَمَنْ لَمْ يَعْلَمْ فَأَنَّهُ لَا يَعْلَمْ



Scalp Fungus



Nail Fungus



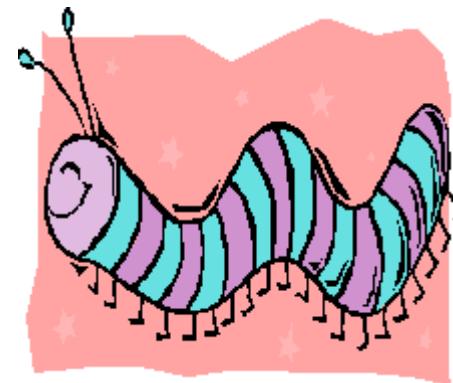
Ringworm



Athletes Foot

Dermatophytosis

Tinea (_{L,clothes moth}), Ringworm (_{G,L})



Dermatophytosis
Dermatomycosis
Scytonidium infections

➤ Neoscytalidium dimidiatum

➤ Neoscytalidium hyalinum

- *Nattrassia mangiferae*

Tinea pellionella

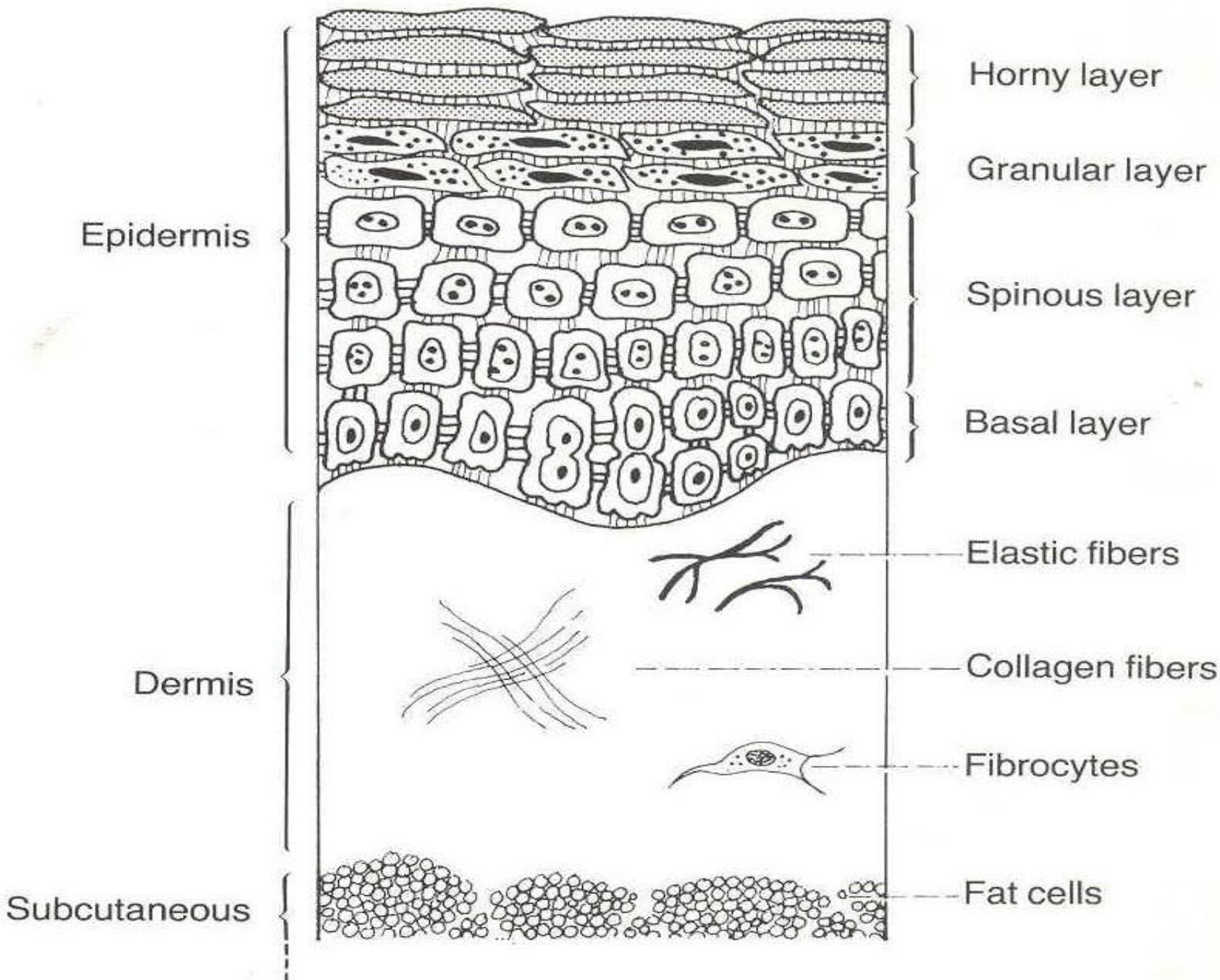


Tinea corporis



Agents:

Dermatophytes



- Microsporum (M)
- Trichophyton (T)
- Epidermophyton (E)

- Arthroderma
- M.canis (Arthroderma otae)

- *M.canis* Ö
- *M.gypseum* Ö
- *M.ferruginum*
- *M.audouinii*
- *M.distortum*
- *T.verrucosum*
- *T.tonsurans*
- *T.rubrum*
- *T.soudanense*

- *T.mentagrophytes*
- *T.violaceum* Ö
- *T.schoenleinii* Ö
- *E.floccosum*

Trichophyton mentagrophytes

- Variety **interdigitale**
- Variety **mentagrophytes**
- Variety **erinacei**
- Variety **quinkeanum**

These organisms are part of the “*mentagrophytes*” complex

- *Trichophyton interdigitale*
- *Trichophyton mentagrophytes*
- *Trichophyton erinacei*
- *Trichophyton quinkeanum*





M. canis

Microsporum gypseum

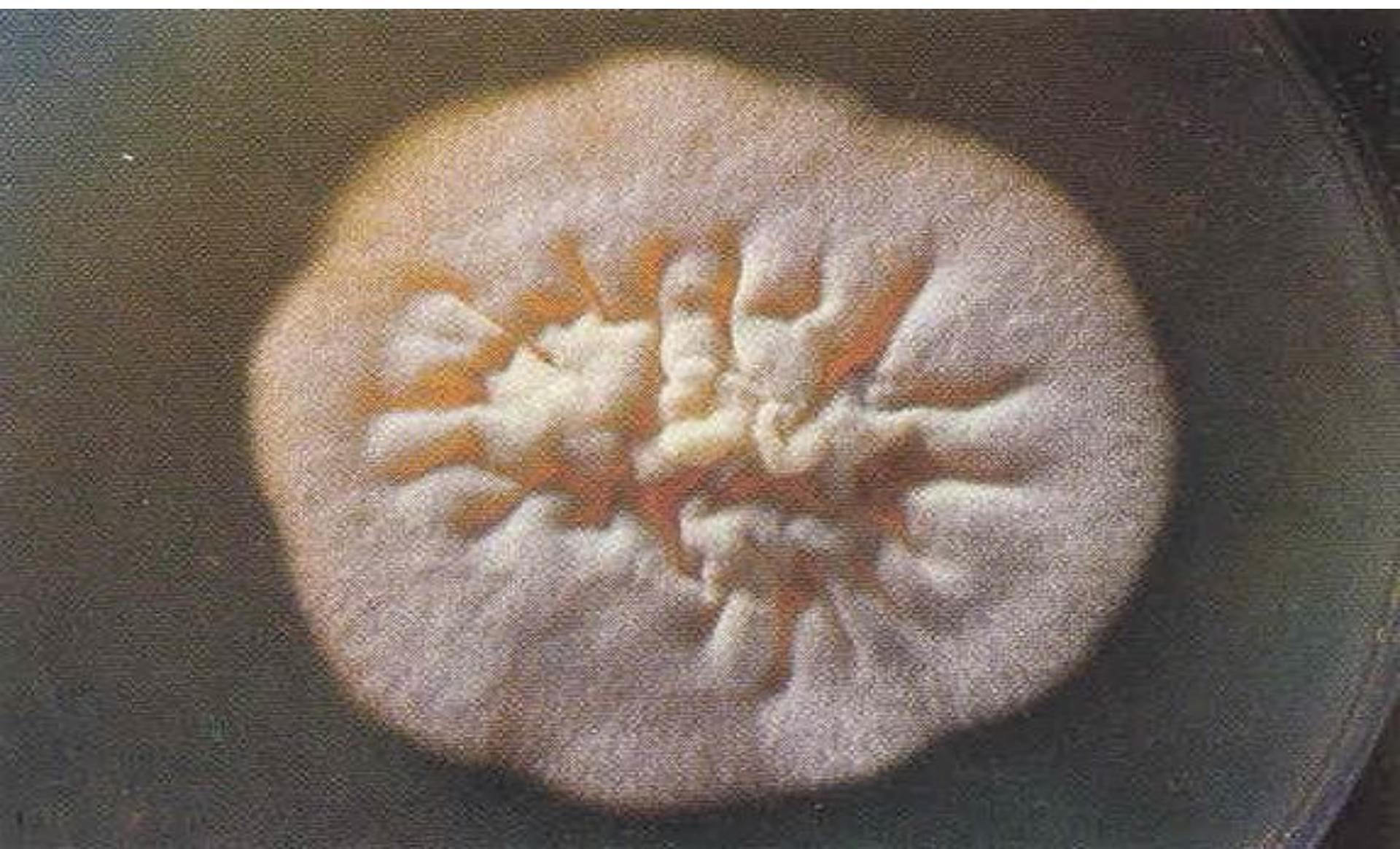


M. gypseum



Tr. violaceum

T.schoenleinii



Sources:

❖ -Zoophilic:

➤ *M.canis*

2-Geophilic:

➤ *M.gypseum*

❖ 3-Anthropophilic:

➤ *T.violaceum*

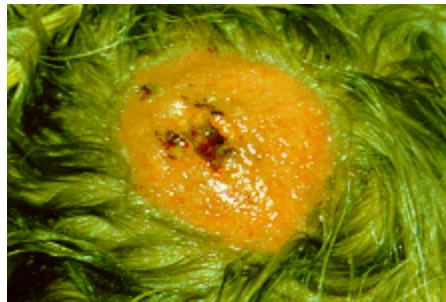




"Kerion" lesion caused by *M. canis*.



"Kerion" lesion caused by *T. verrucosum* following contact with cattle.



Dermatophytosis



Feline Dermatophytosis



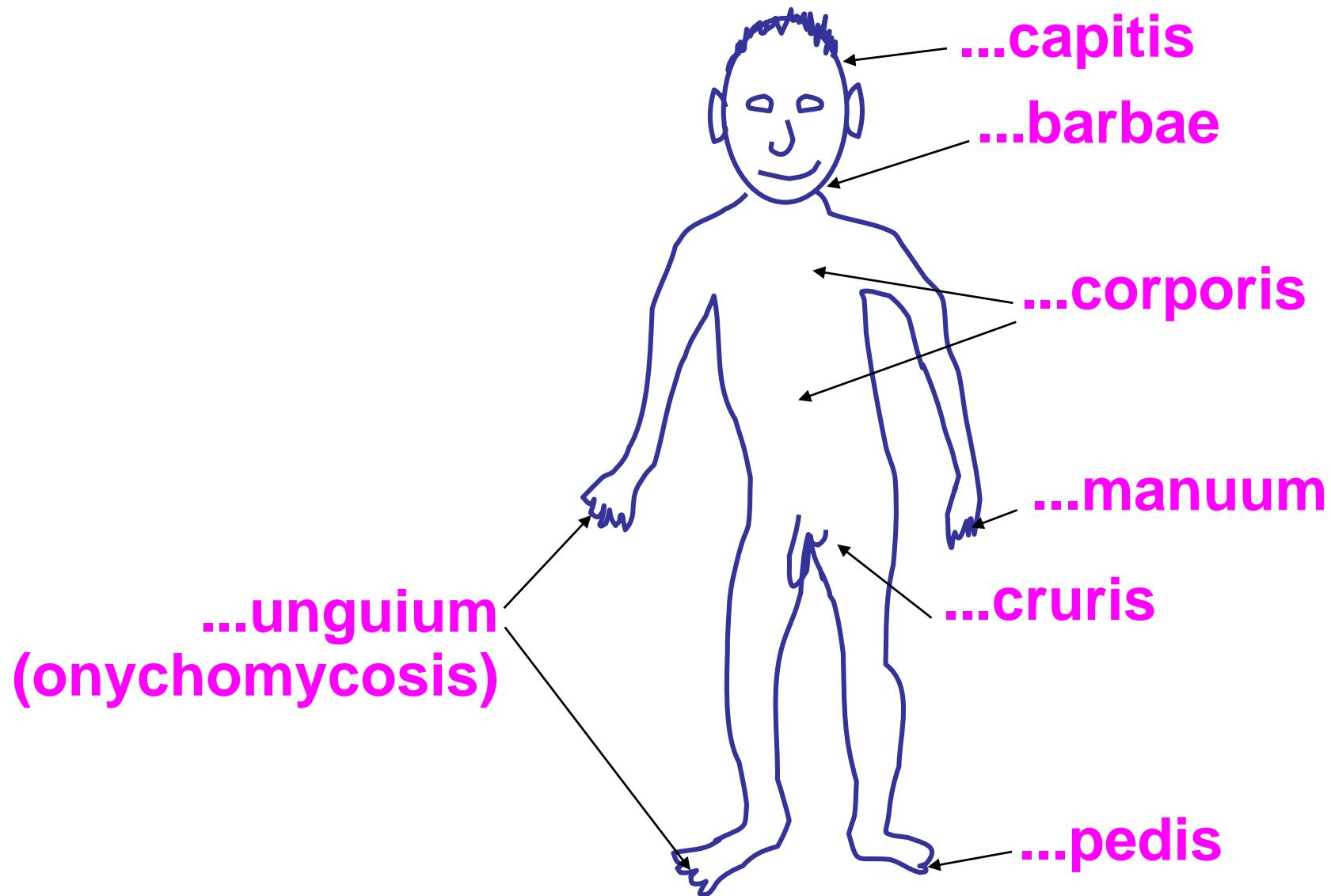
Ringworm



Dermatophytosis



Tinea...



- **Tinea capitis**
- **Tinea favusa (favus)**
- **Tinea pedis**
- **Tinea cruris**
- **Tinea unguium**
- **Tinea barbae**
- **Tinea corporis**
- **Tinea imbricata**

➤ **Tinea capitis**

➤ **Tinea favusa (favus)**



Agents:

- ***Microporum* spp.**
- ***Trichophyton* spp.**

Tinea capitis caused by *M. canis*
following contact with infectious
kittens .



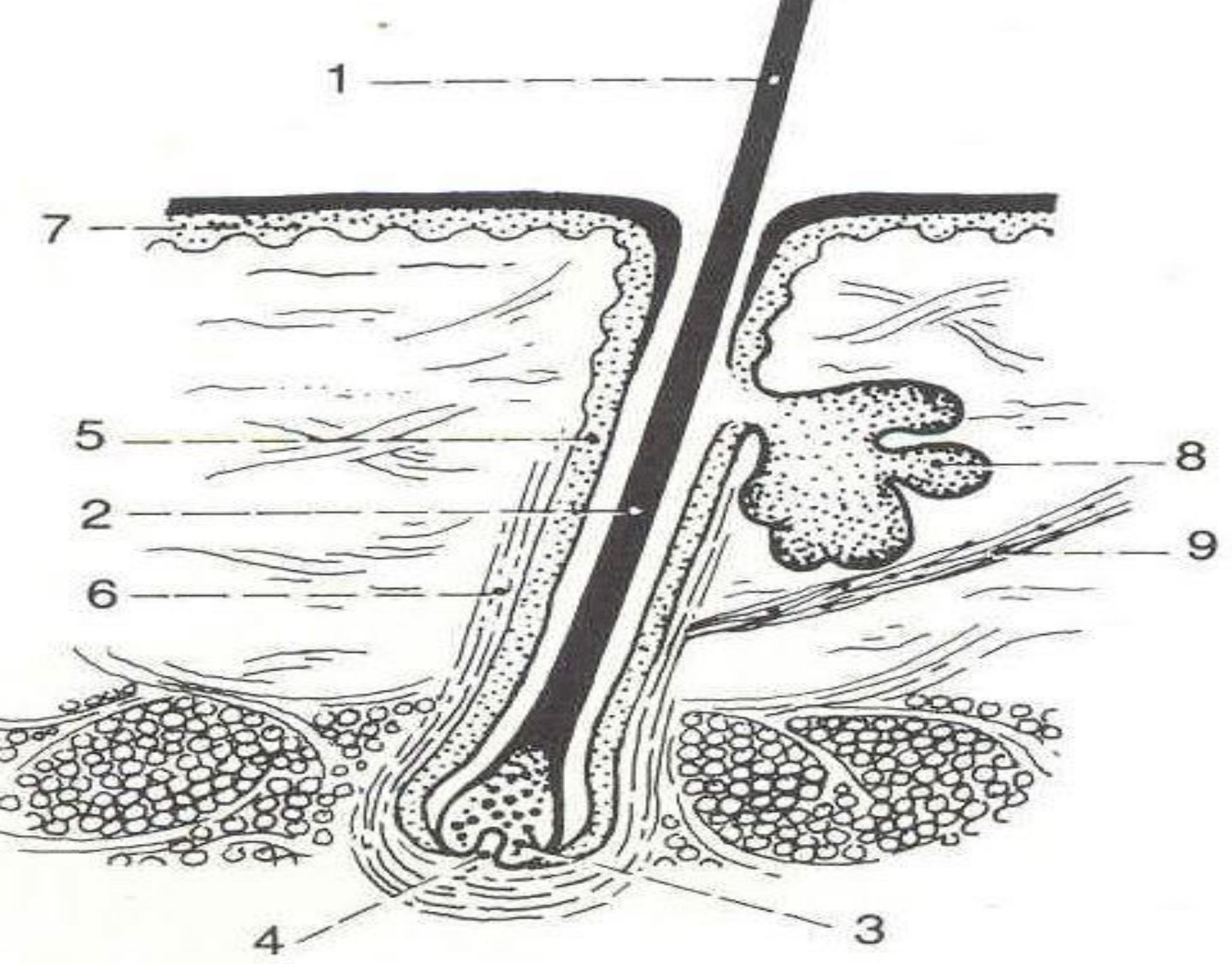
Predisposing factors:

➤ 1-Ectothrix (Gray patch ringworm)

➤ 2-Endothrix

➤ 3-Favus (Favic hair invasion)

➤ Id reaction (secondary rashes: small follicular papules)



- *Microsporum canis*
- *Trichophyton violaceum*
- *Trichophyton schoenleinii*







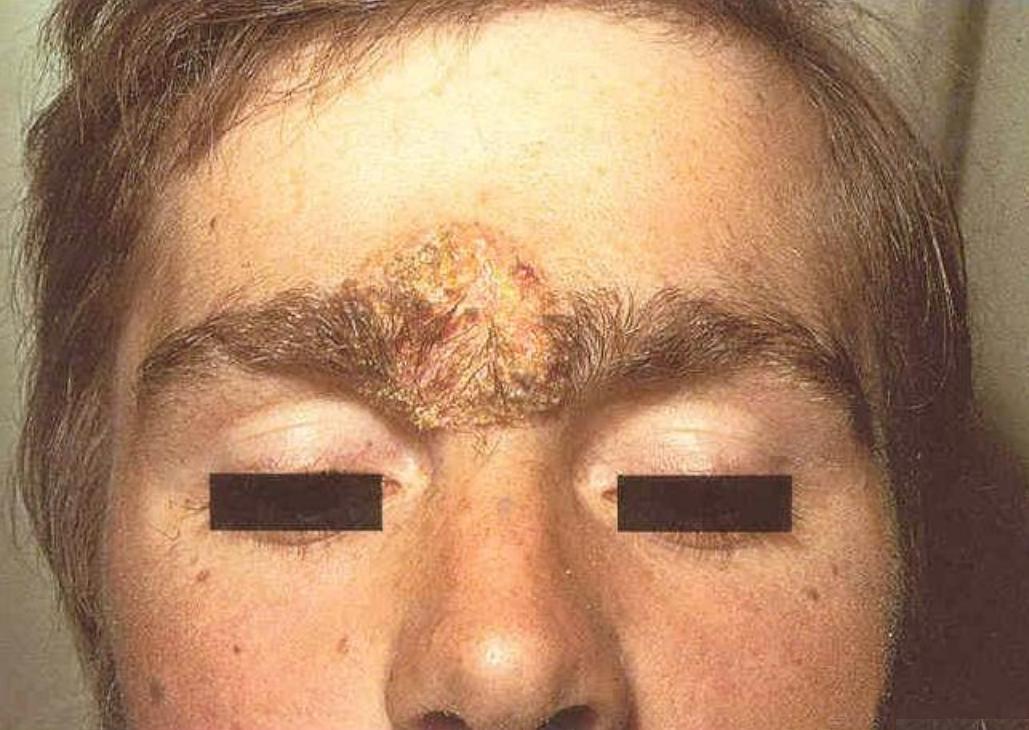
Hair loss in a well-delineated patch with scaling or small "black dots" is indicative of tinea capitis.













Aalopecia areata



Pyoderma



Trichotillomania



Trichotillomania



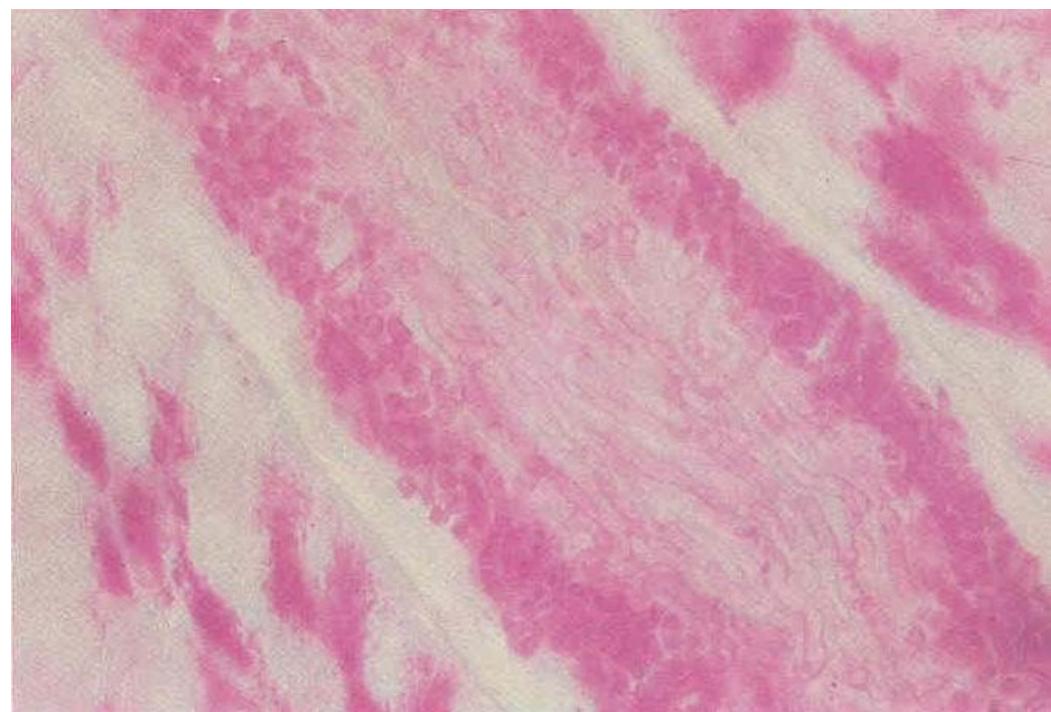
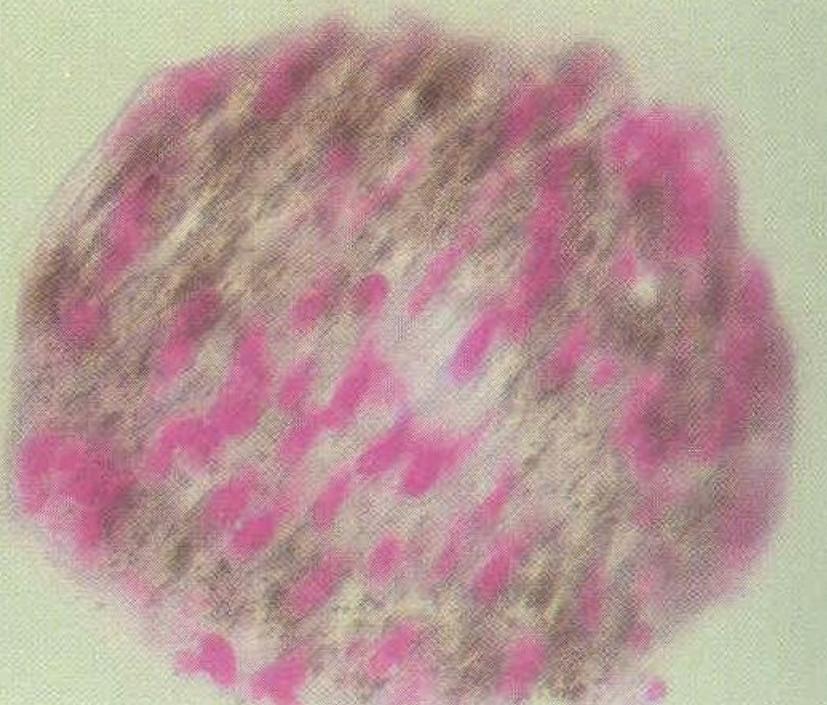
➤ 1-Collection of samples

➤ 2-Direct examination

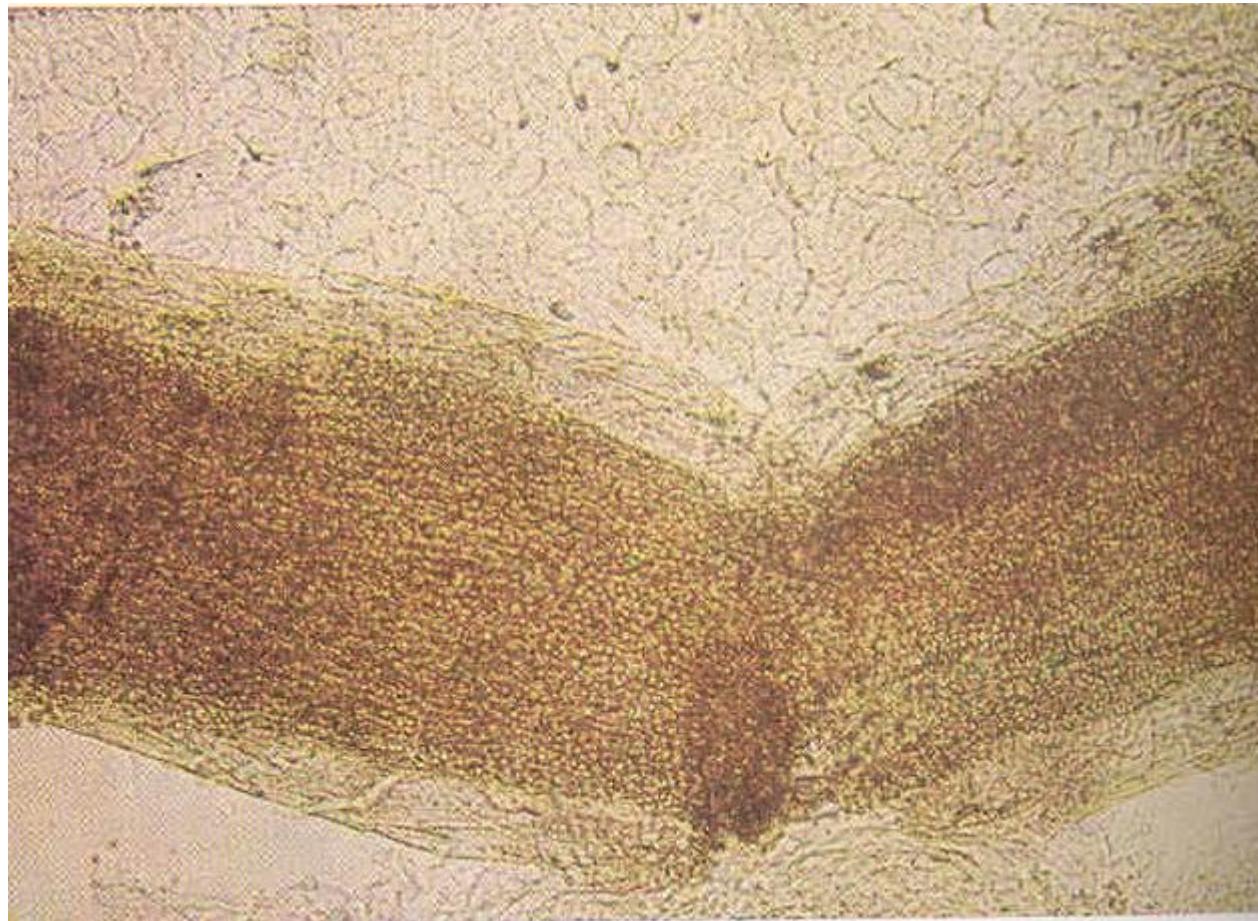
➤ 3-Culture: SCC

➤ 4-Wood's lamp

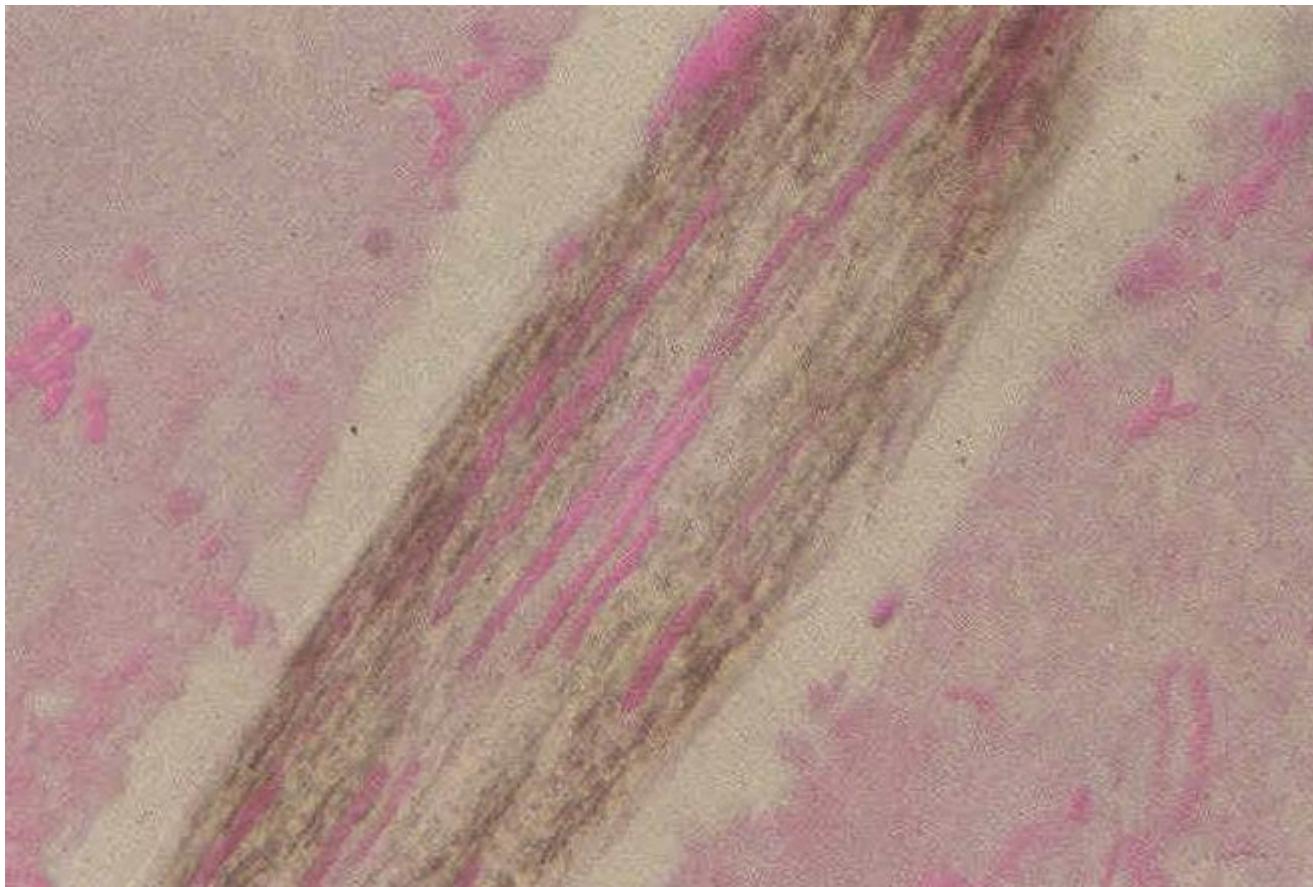
Endothrix



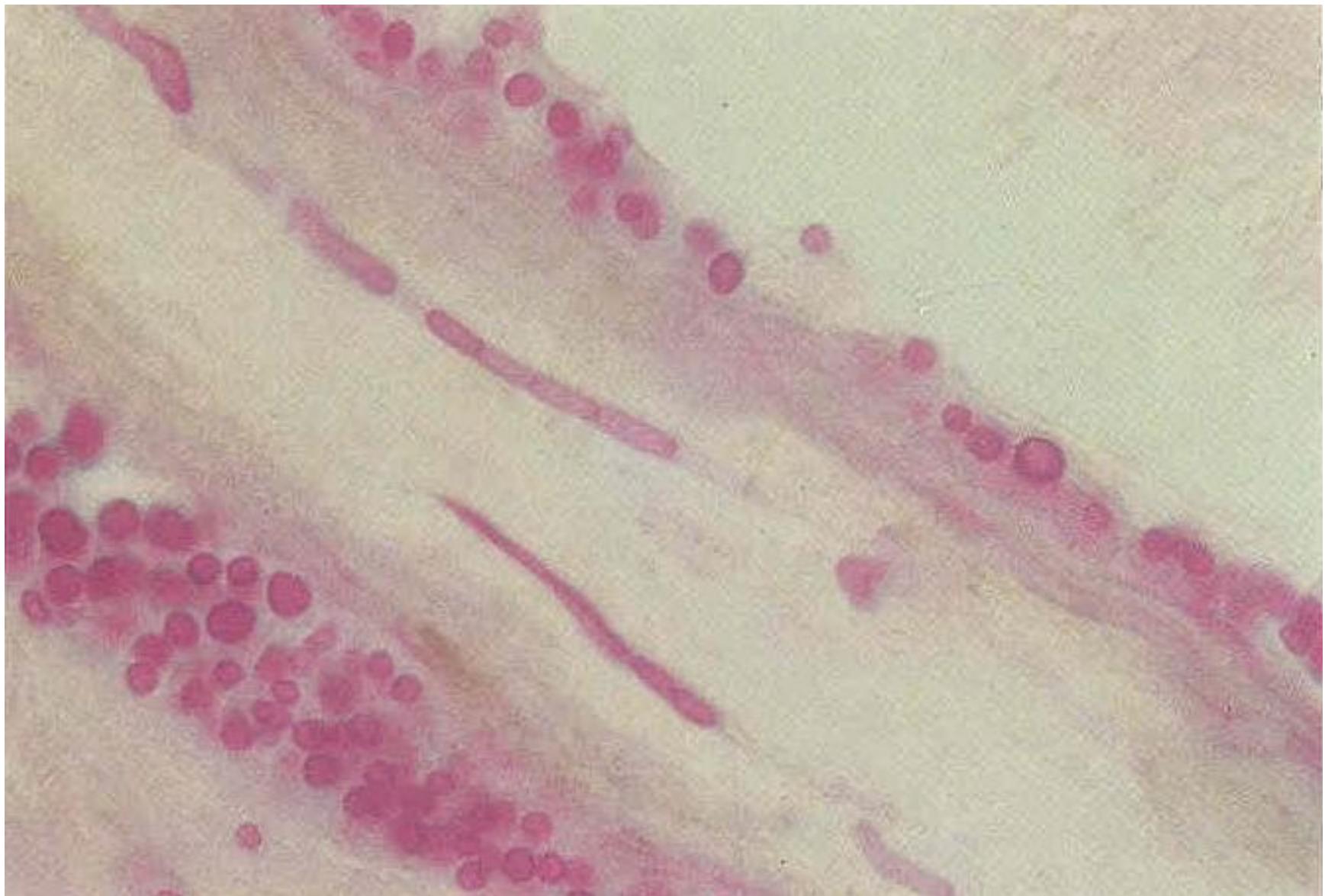
Endothrix

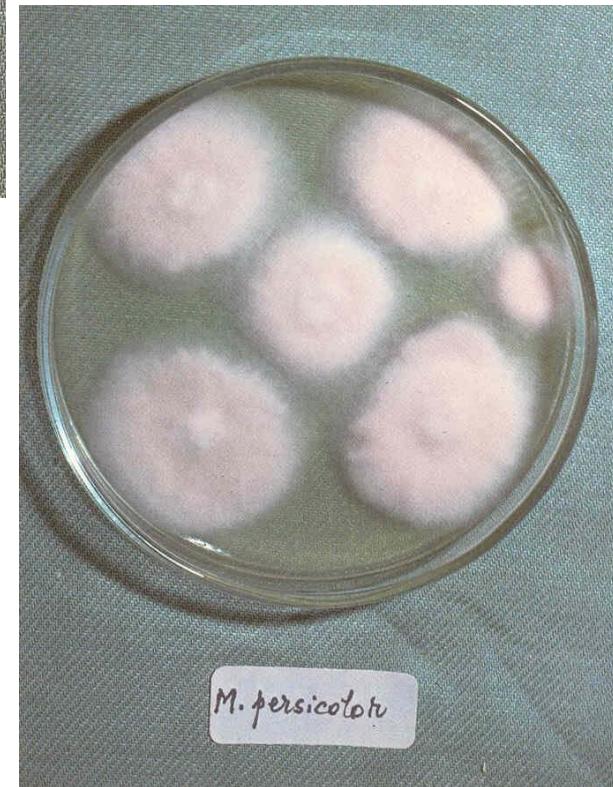
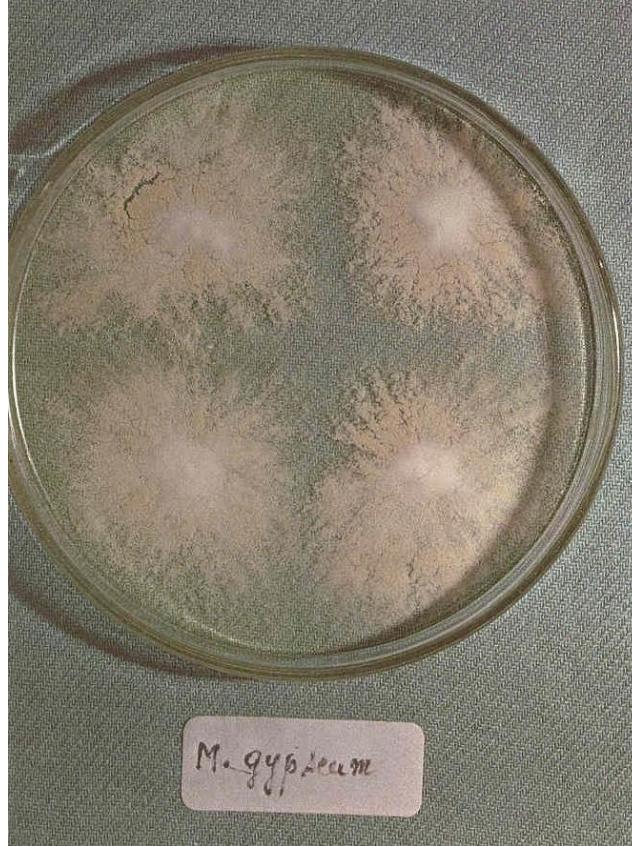


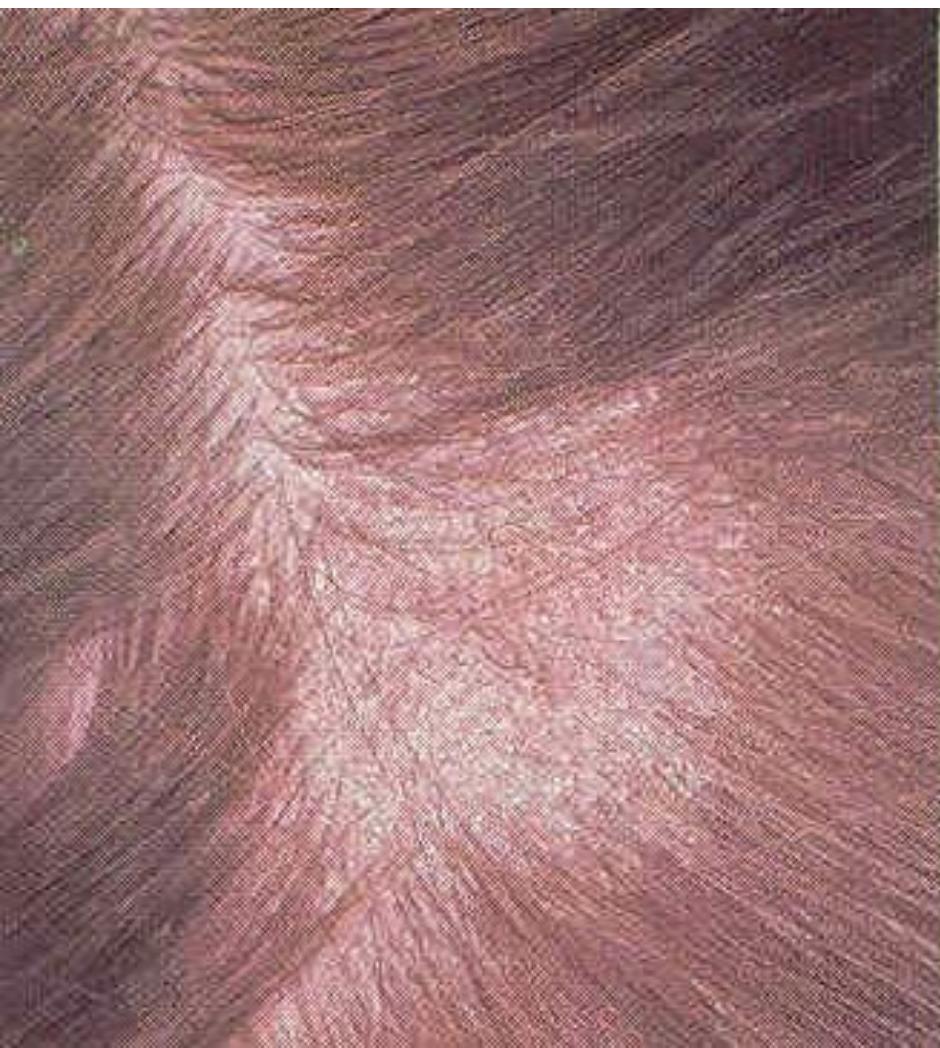
Favus



Ectothrix







➤ Griseofulvin

➤ Fluconazole



Itraconazole



Terbinafine

- Selenium sulphide shampoo
- Ketoconazole shampoo
- Prednisone for severe kerion
- General sanitation measures

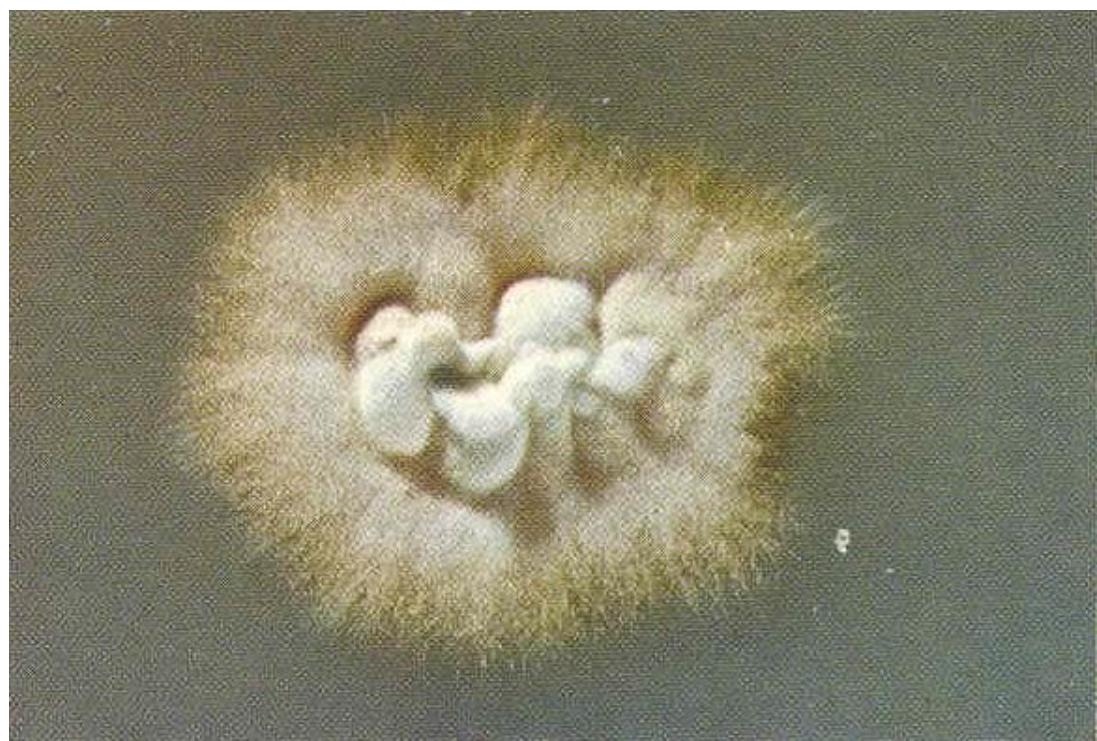
Tinea pedis

Or

Athlete's foot

Agents:

- T.rubrum
- T.mentagrophytes: (اسم فعلی *T. interdigitale*) Ö
- E.floccosum Ö
- ❖ Scytalidium spp.



Predisposing factors:



1-Chronic intertriginous

Tinea pedis







2-Papulosquamous hyperkeratotic











"Moccasin-type" tinea pedis caused
by *E. floccosum*





3-Subacute or vesicular



- *T.mentagrophytes*

4-Acute ulcerative vesiculopustular

5-Id reactions (secondary rashes):



➤ Showers

➤ Hotels

➤ Locker rooms

➤ Diving board

➤ Pools

➤ Floor mats

➤ Carpet

Epidemiology:

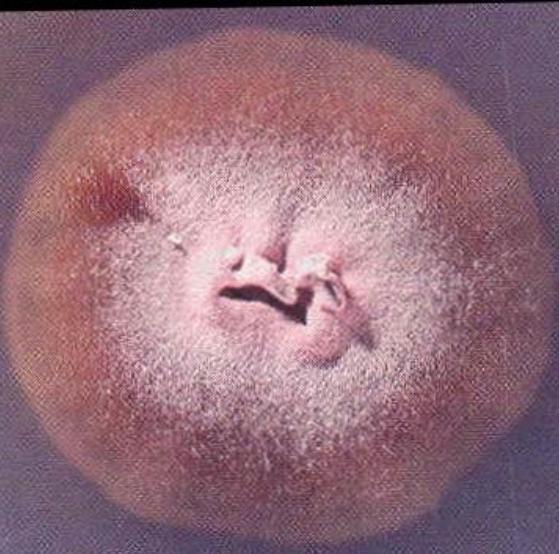
Tinea cruris:



Jock itch

Agents:

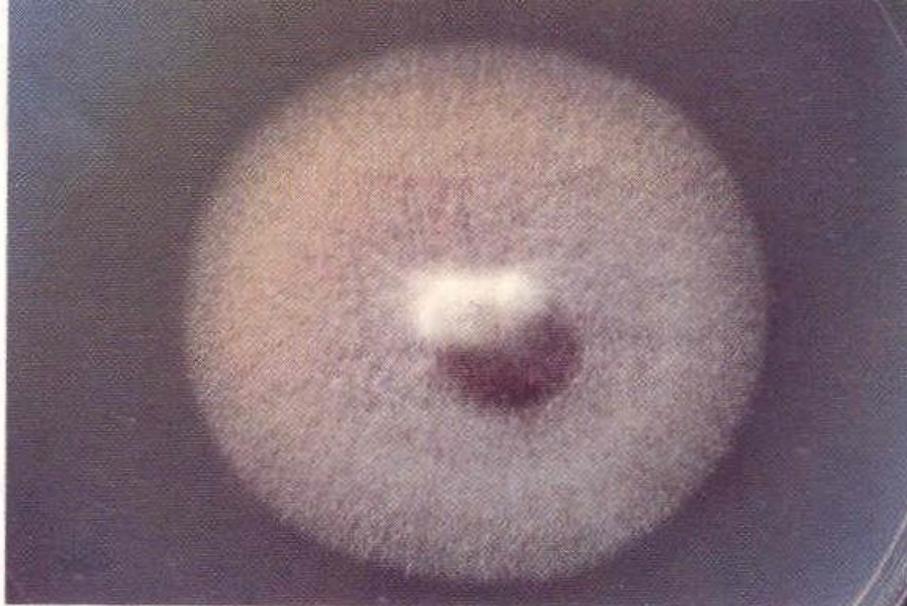
- *E.floccosum* (Europe)
- *T.rubrum* Ö (USA)
- *T.mentagrophytes*: (اسم فعلی) *T.interdigitale*) Ö



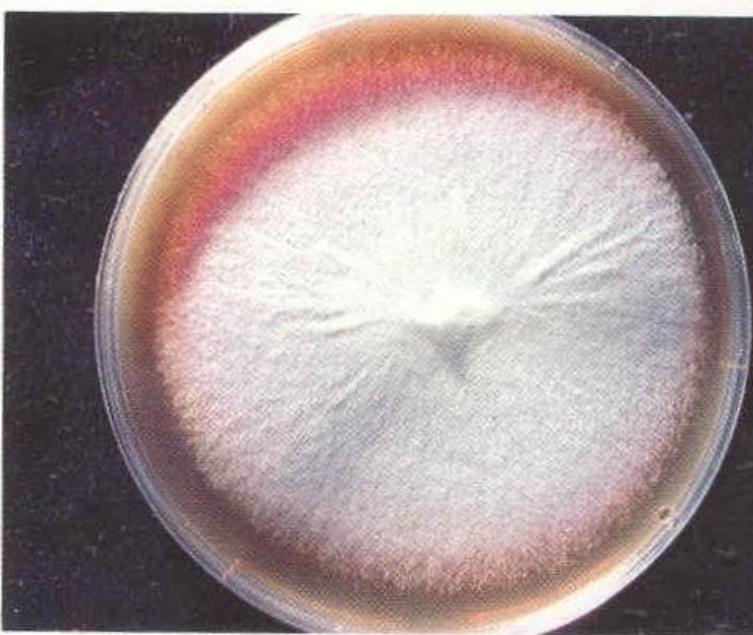
34.3 Granular. Potato dex. agar, 26 days



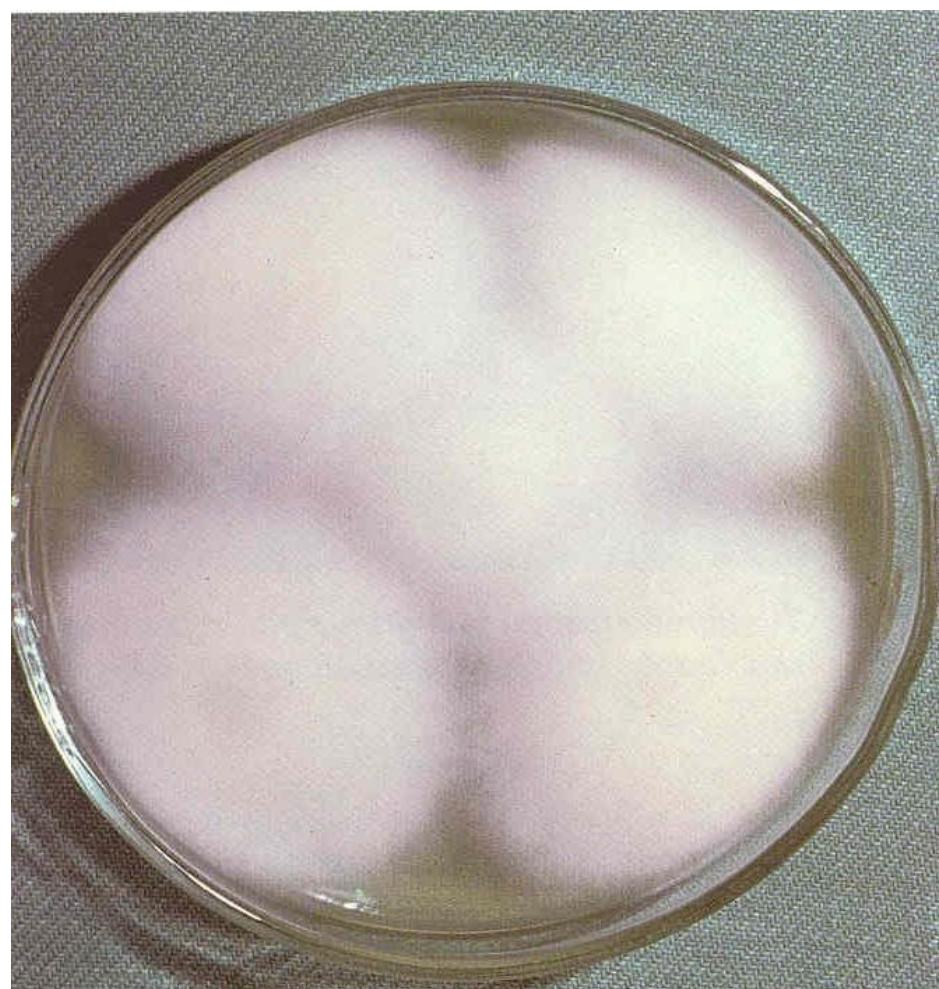
34.4 Granular. Mycobiotic agar, 26 days



34.6 Melanoid. Potato dex. agar, 13 days



34.7 Melanoid. Mycobiotic agar, 32 days



Tn. interdigitate

Predisposing factors:



Tinea of the groin showing typical erythematous lesions on the inner thighs



Tinea cruris



Tinea unguium: OR



Dermatophytic Onychomycosis

Onychomycosis:

- *Scopulariopsis brevicaulis*
- *C.albicans*
- *C.parapsilosis*
- *C.guilliermondi*
- *Geotrichum candidum*
- *Trichosporon cutaneum*
- *Scytalidium dimidiatum* (*Hendersonula toruloidea*)

- *Scytalidium hyalinum*
- *Asp.treus*
- *Asp.candidus*
- *Asp.ustus*
- *Asp.flavus*
- *Asp.versicolor*
- *Asp.fumigatus*
- *Fusarium oxysporum*
- *Asp.glaucus*
- *Acremonium spp.*
- *Asp.sydowi*

Scopulariopsis brevicaulis



Scopulariopsis brevicaulis



DLSO due to *Scytalidium dimidiatum*
with associated paronychia



Asp.niger



Alternaria tenuis



Proximal subungual onychomycosis due to *Fusarium*



Treatment of onychomycosis:

- Seldom effective oral therapy
- Nail removal with 40 percent urea
is best alternative treatment

Agents of tinea unguium:

- **T.rubrum**
- **T.mentagrophytes**
اسم فعلی: (*T. interdigitale*)
- **T.schenleinii**
- **T.violaceum**
- **T.verrucosum**
- **T.tonsurans** Ö
- **E.floccosum** Ö
- **T.concentricum**



Predisposing factors:

➤ 1-Contact:

Tinea manuum

➤ 2-Indirect:

Tinea corporis

Tinea capitis

➤ 3-Scissors,...

1-Leukonychia mycotica or Superficial white onychomycosis

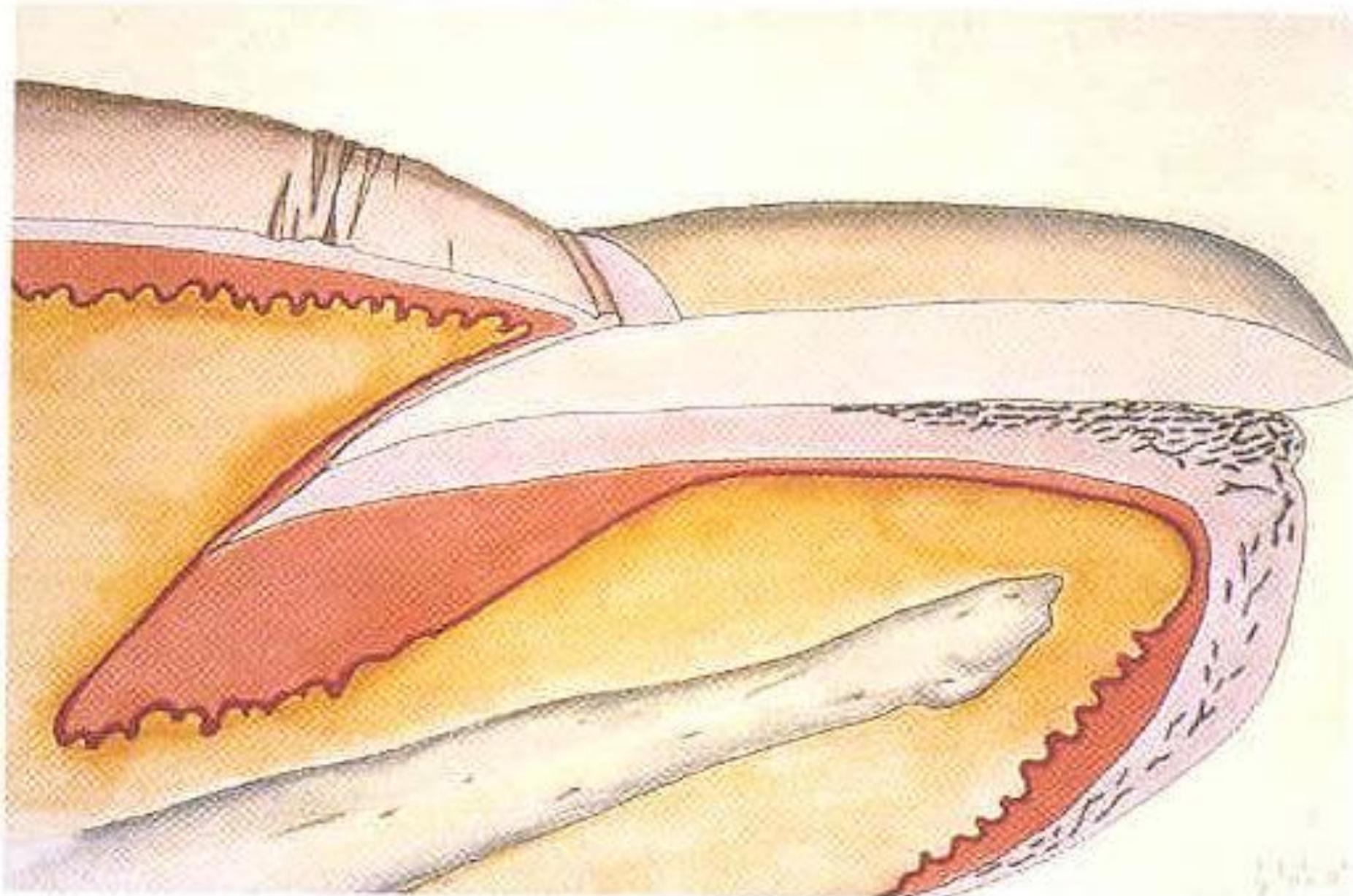
2-Invasive or distal and subungual onychomycosis

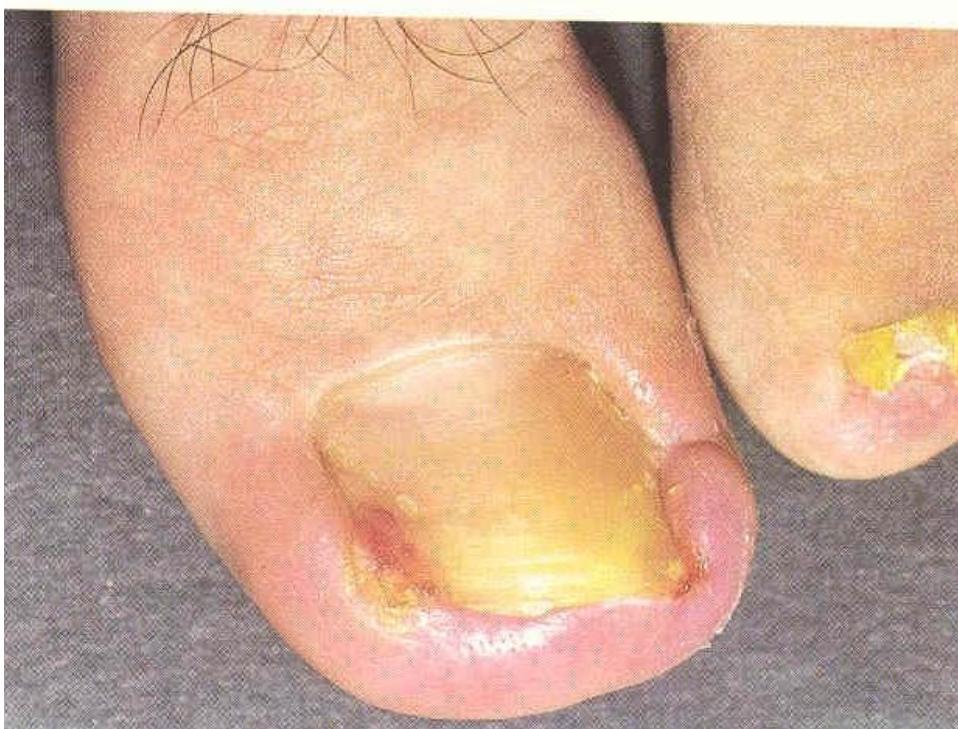
- Proximal subungual onychomycosis

Superficial white onychomycosis



Distal lateral subungual onychomycosis





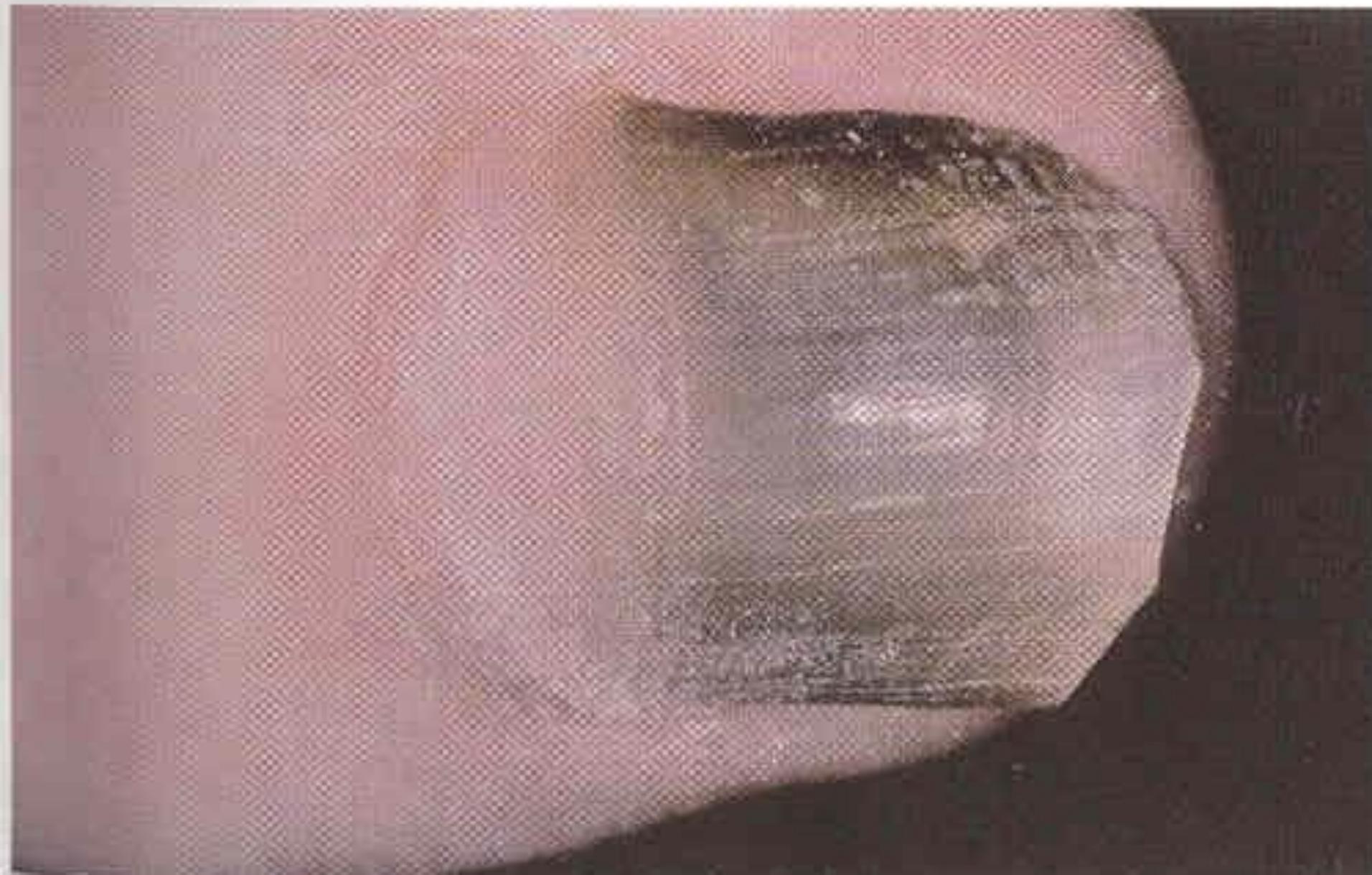
DLSO with onycholysis due to *T. rubrum*



DLSO due to *T. rubrum*



Mixed infection due to *T. rubrum*
and *Pseudomonas*



Psoriasis



Psoriasis



Norwegian scabies



Epidemiology:



Collection of specimens from a nail affected by distal subungual onychomycosis.

Subungual scales are obtained with a curette after removal of the onycholytic nail plate



Dermatophyte mycelia



Dermatophyte mycelia





Treatment:

- 28% Tioconazole solution
- A combination of 40% Urea and 1% Bifonazole

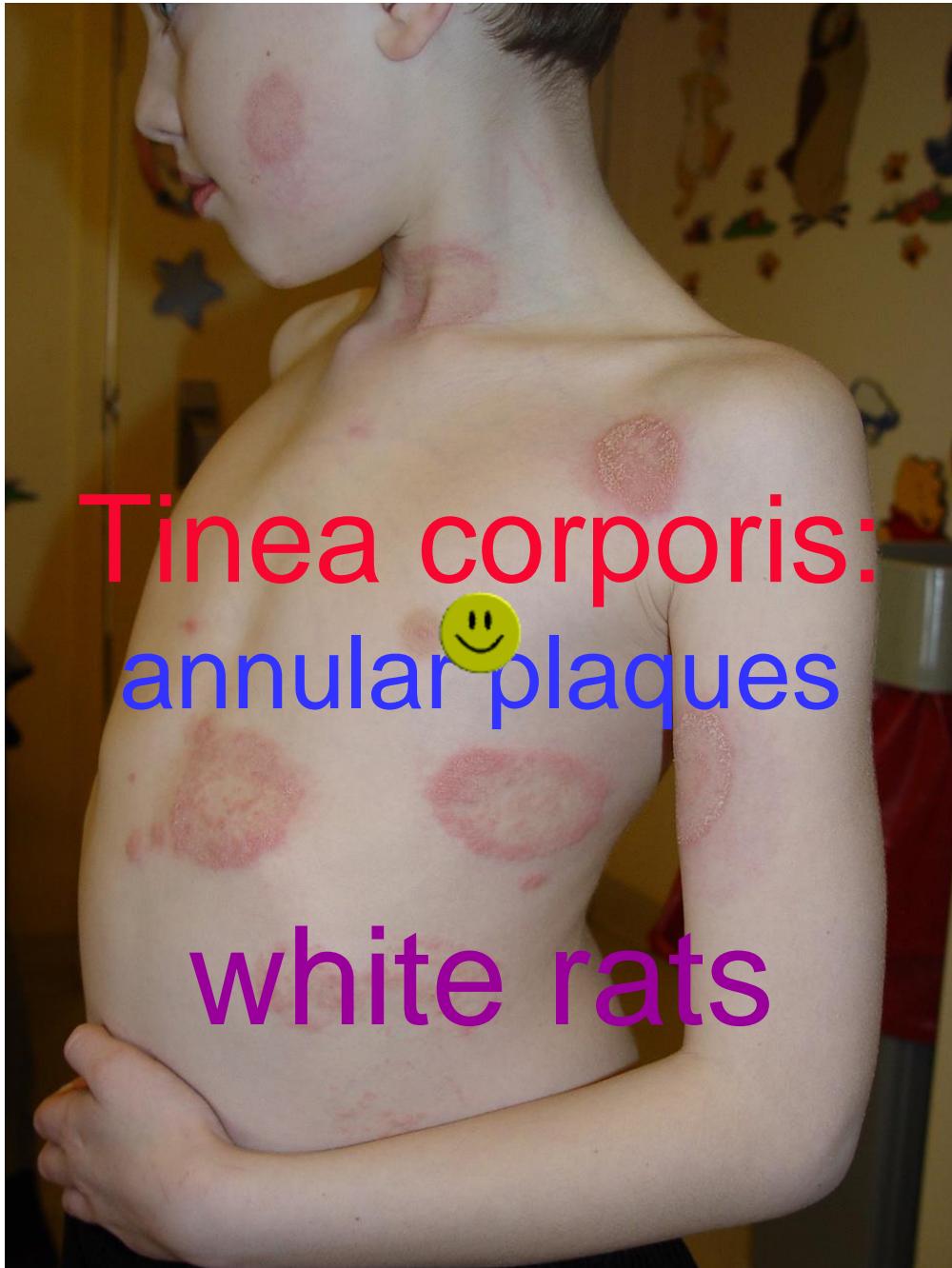
- 5% Amorolfine used as a nail lacquer
- 8% Cyclopirox olamine

Systemic:

- Fluconazole: 3 months, 6 months
- Itraconazole: 6 weeks, 12 weeks
- Terbinafine: 6 weeks, 12 weeks

Chemical avulsion with urea/bifonazole





Tinea corporis:
annular plaques

white rats

Agents:

Most of dermatophytes

Predisposing factors:

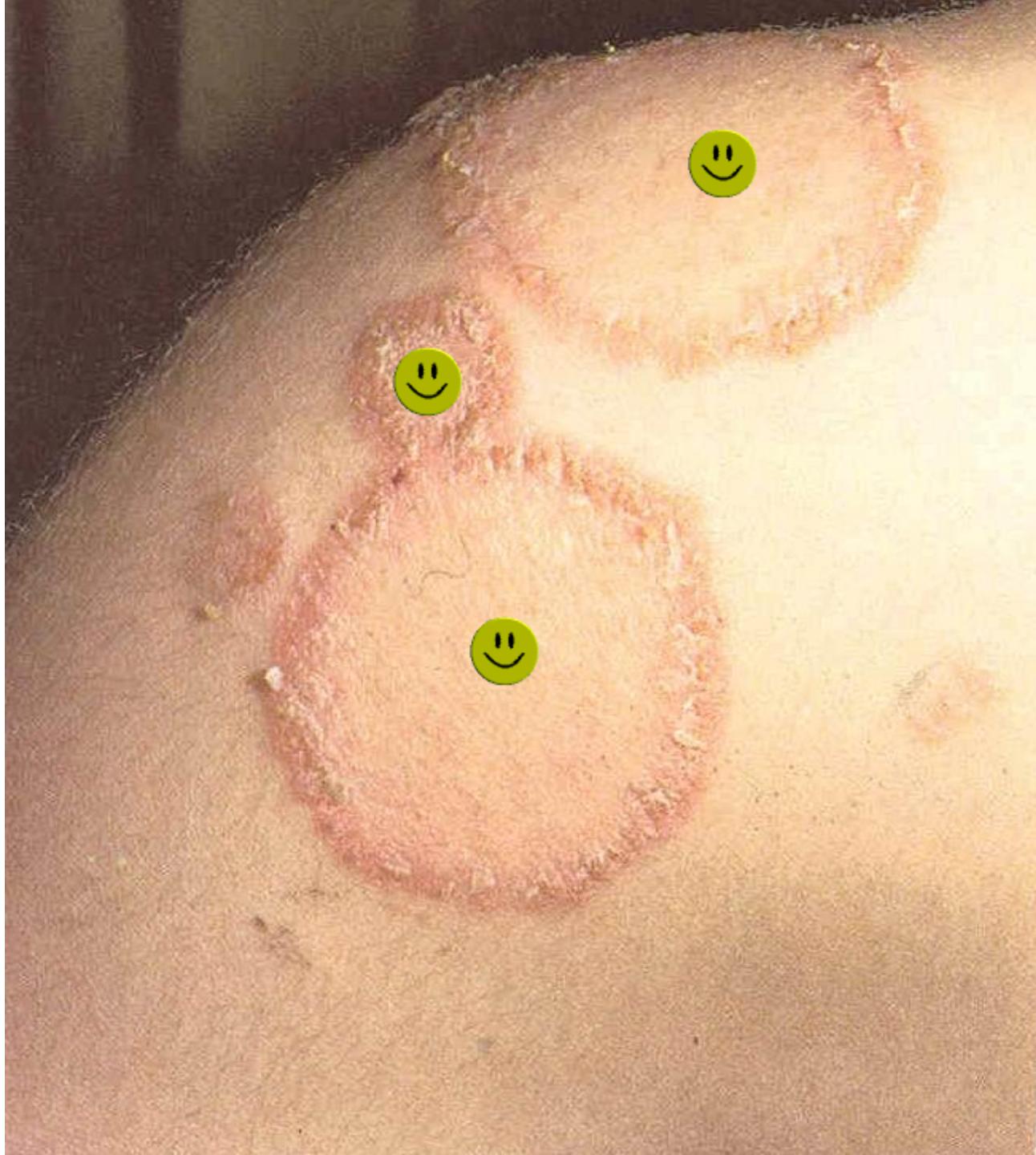
Tinea corporis caused by *M. canis*
following contact with infectious
kittens .



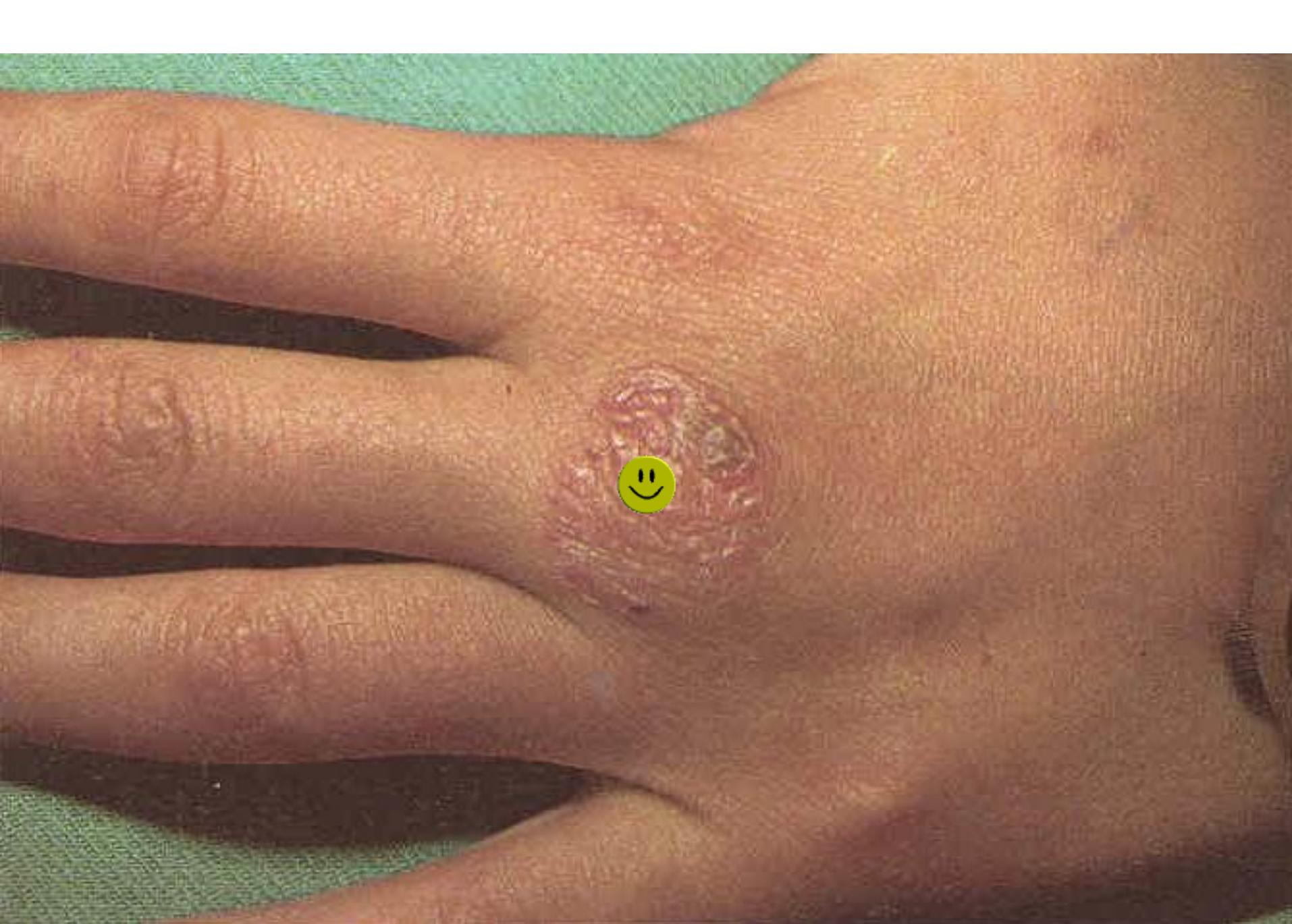
- 1-Annular or circinate (*tinea circinata*) patches
- 2-Exzematic form
- 3-Herpetic form







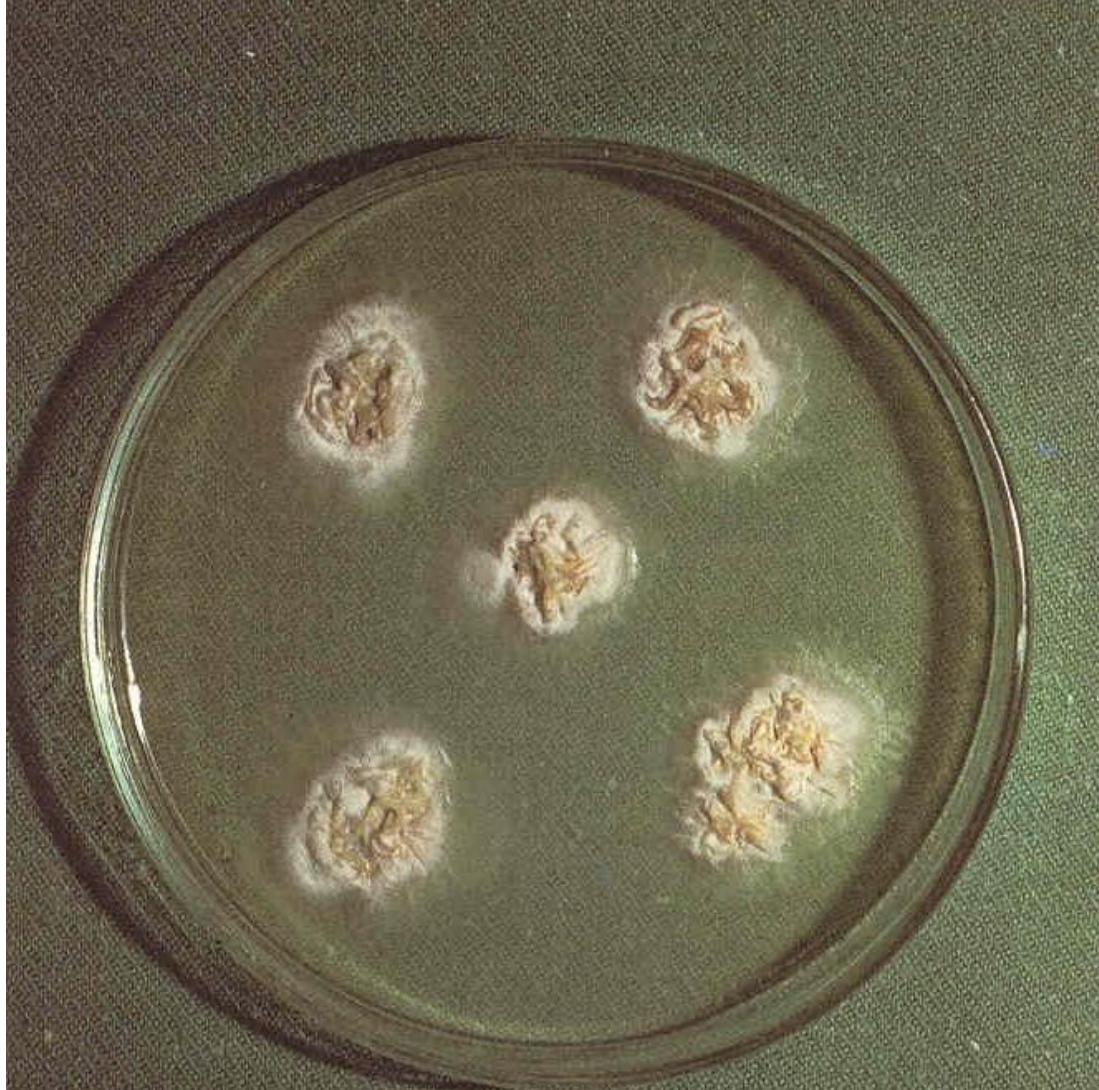




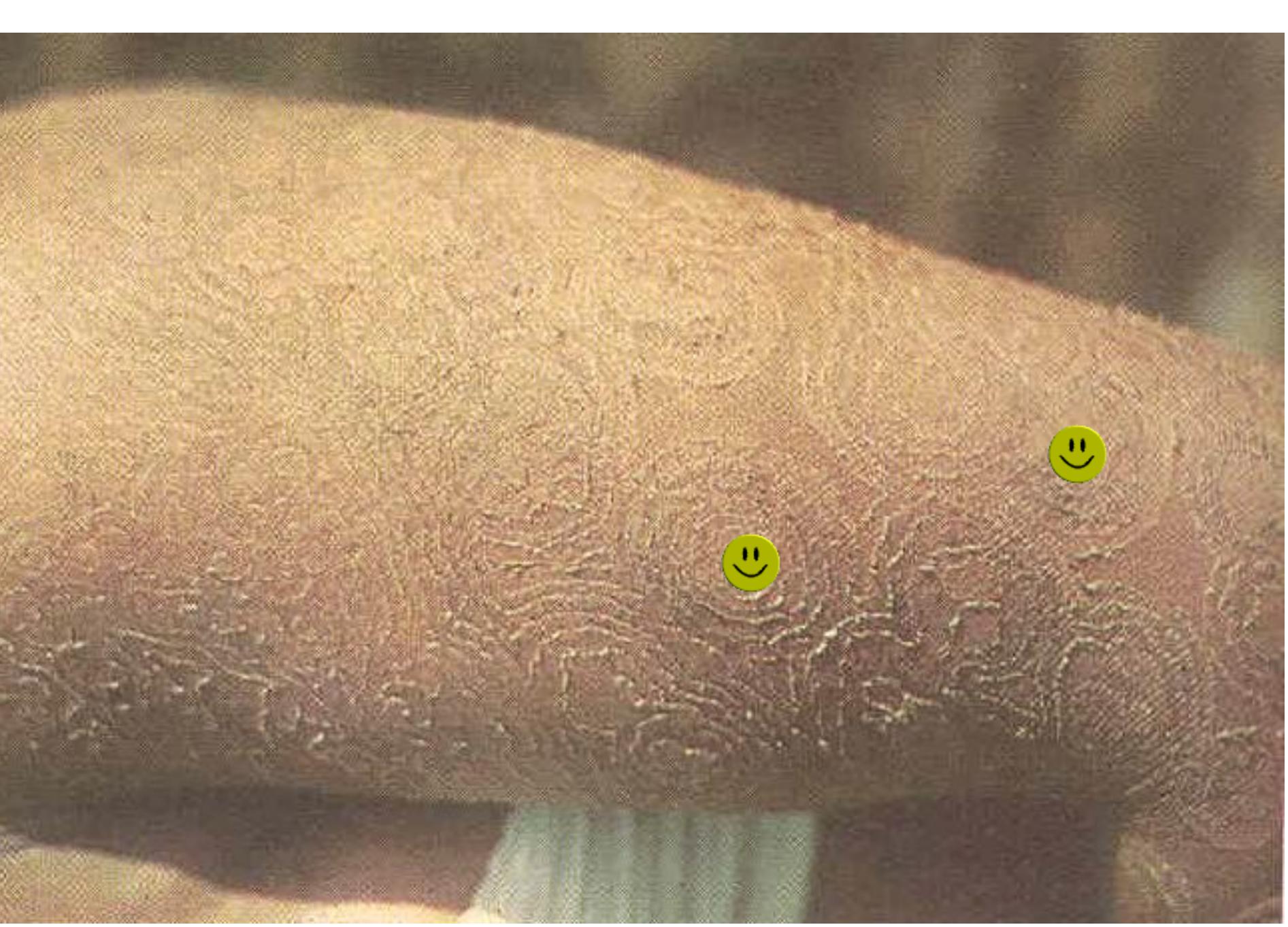
Impetiginized tinea corporis



➤ 4-Tinea imbricata (Tokelau disease)



Tr. concentricum







Epidemiology:



Tinea manuum:

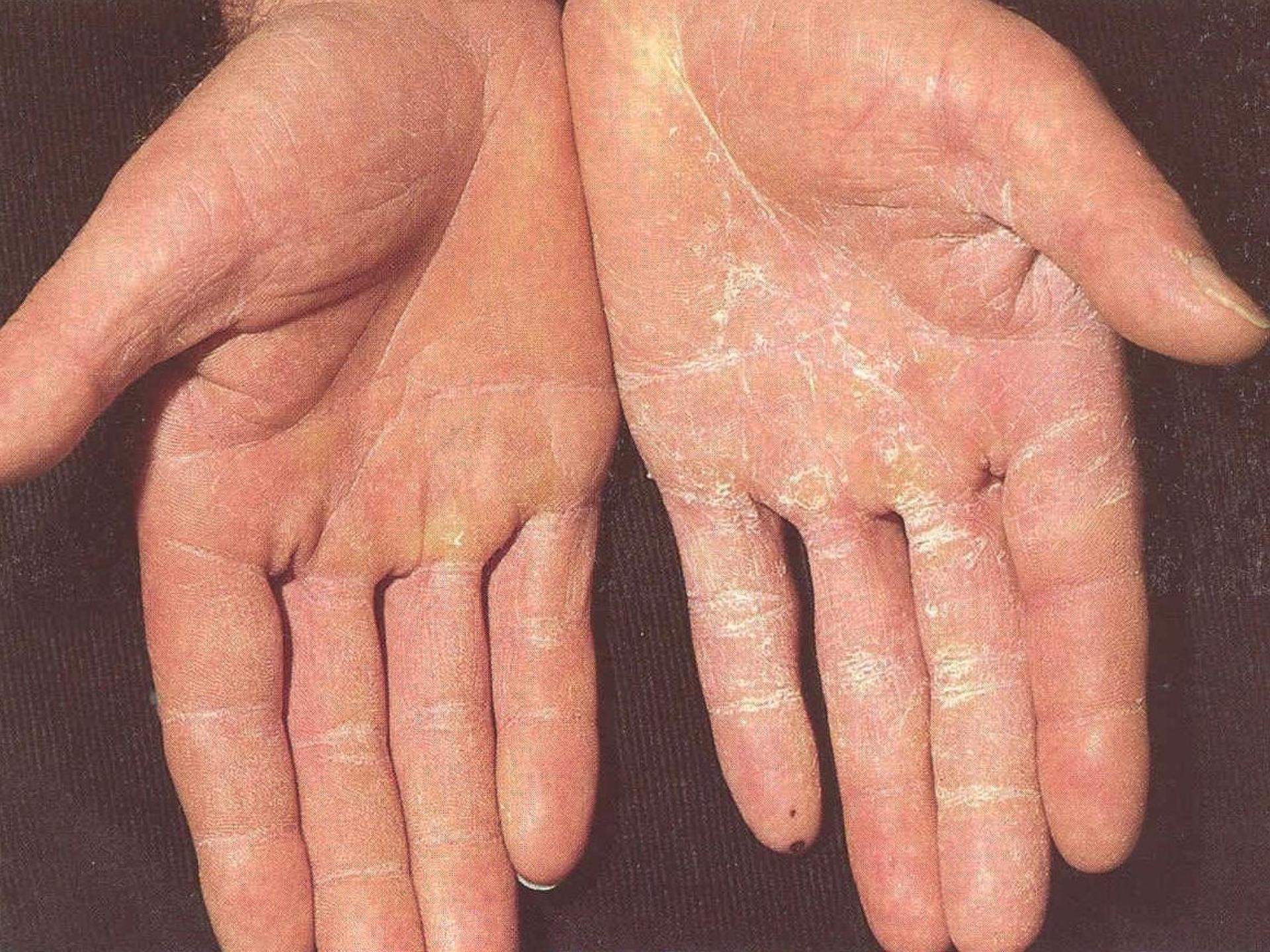
Agents:

- T.rubrum
- T.mentagrophytes: (اسم فعلی *T. interdigitale*)
- E.floccosum

➤ Diffuse hyperkeratotic

➤ Vesicular

➤ Papulovesicular



Tinea manus





Tinea barbae:

Agents:

- *T.mentagrophytes*
- *T.verrucosum*

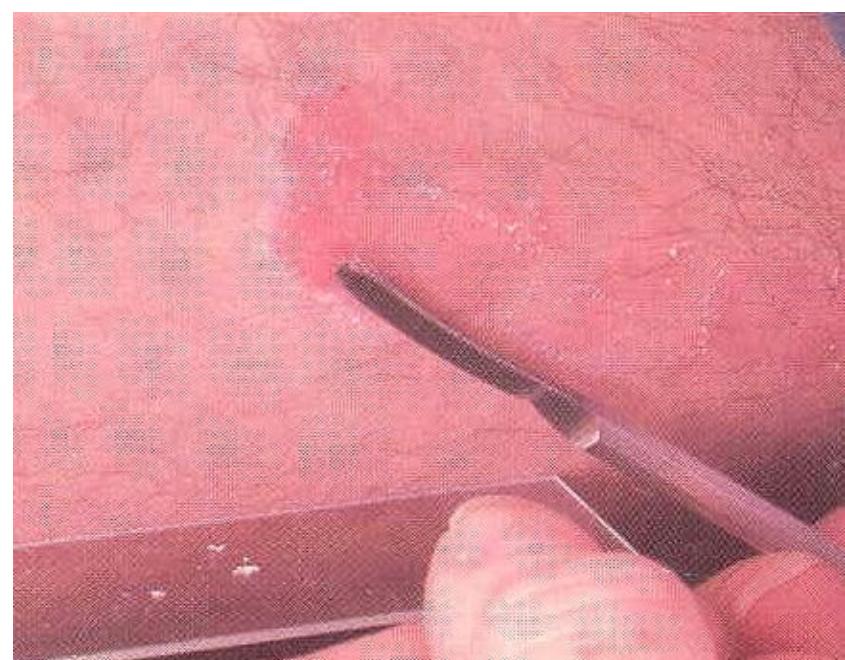
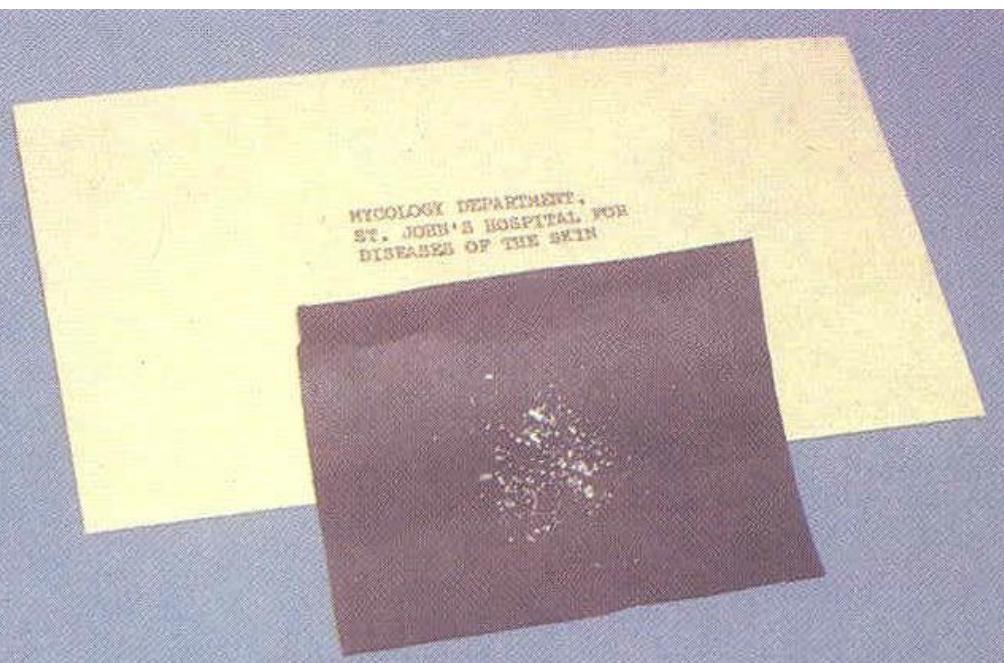
1-Superficial (*T. rubrum*-rarely)

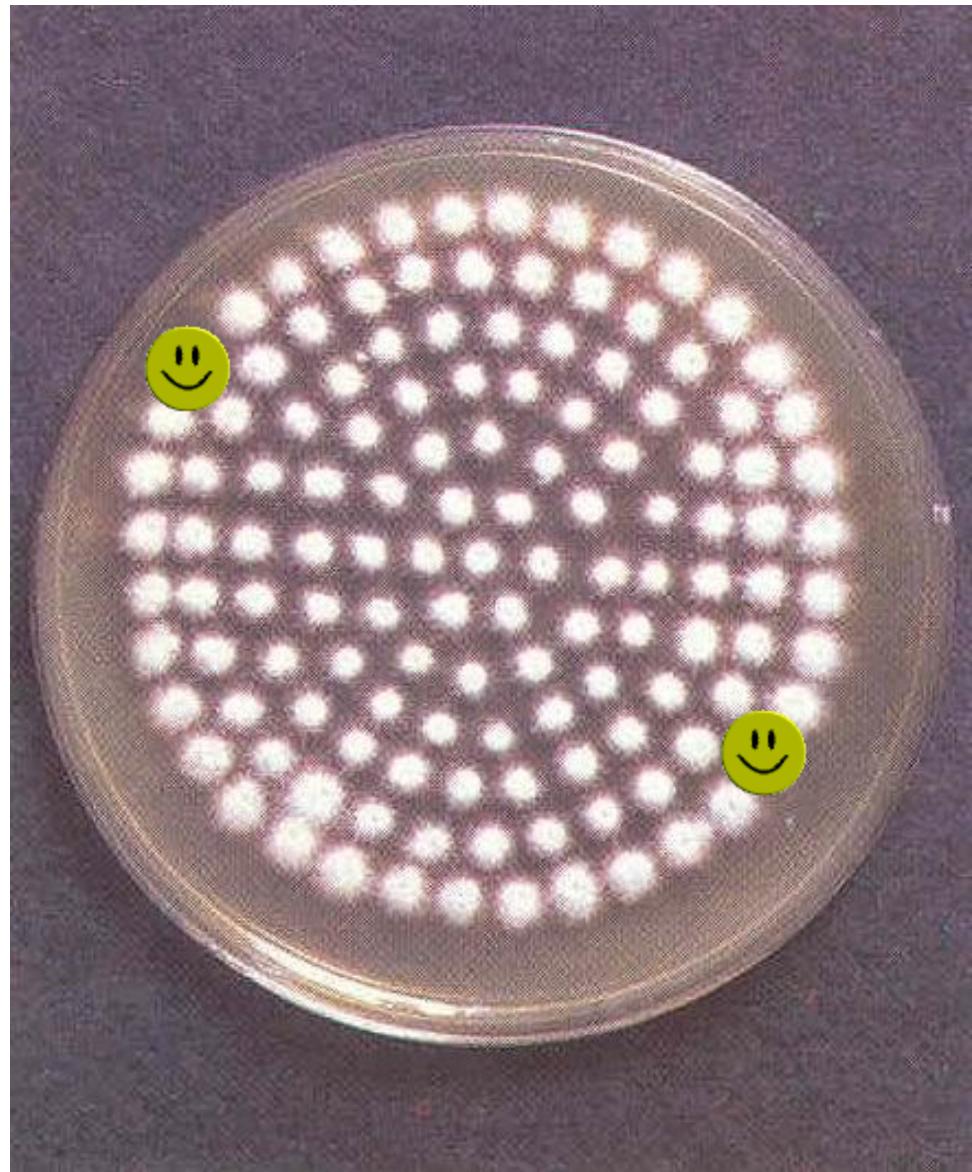
2-Pustular, and deep

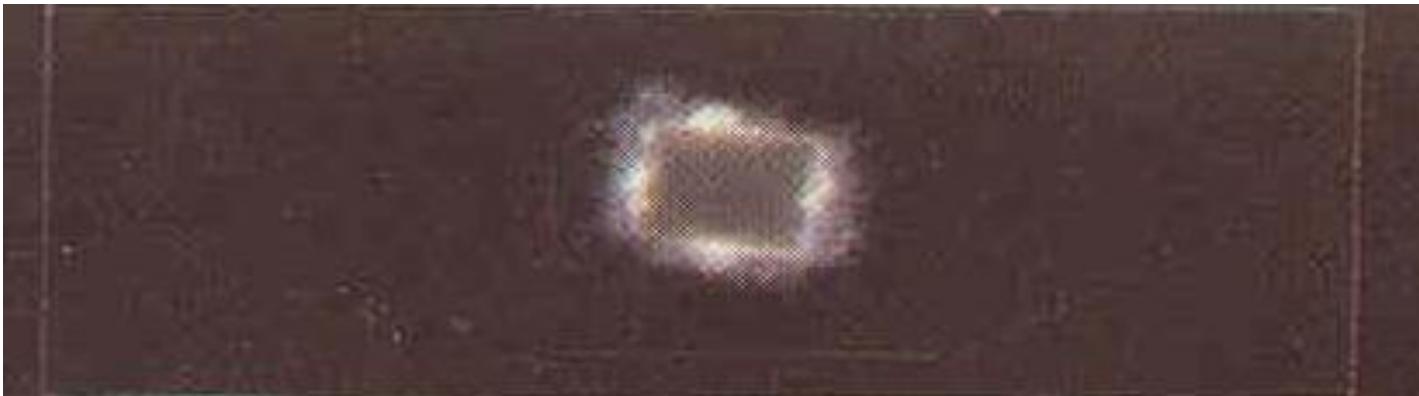


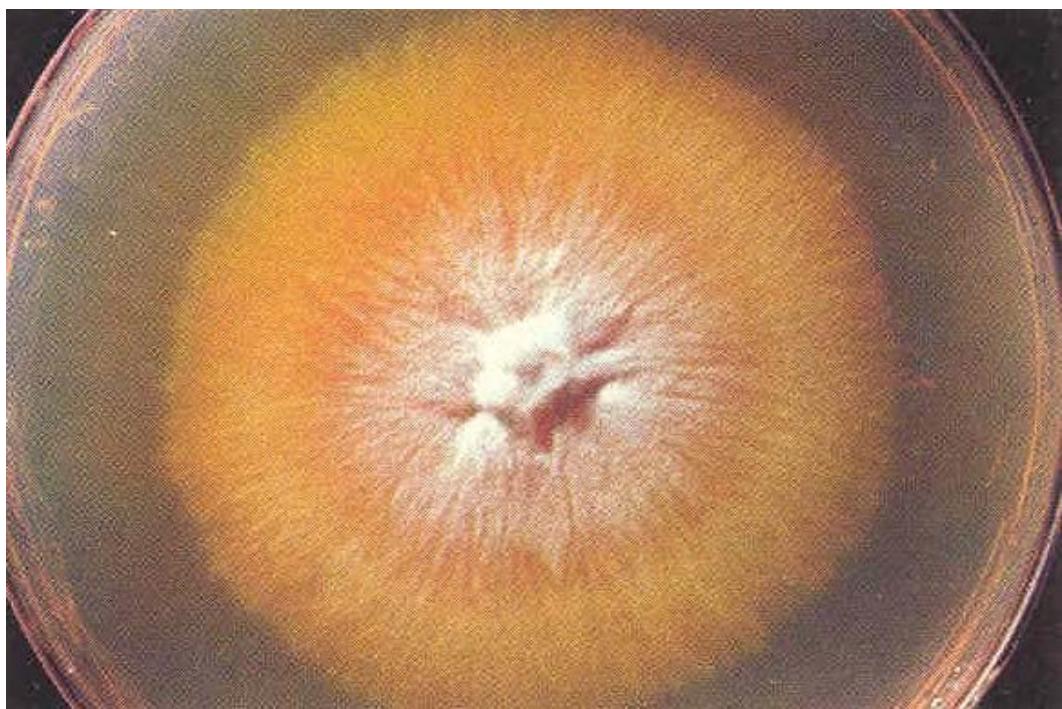


Laboratory diagnosis:

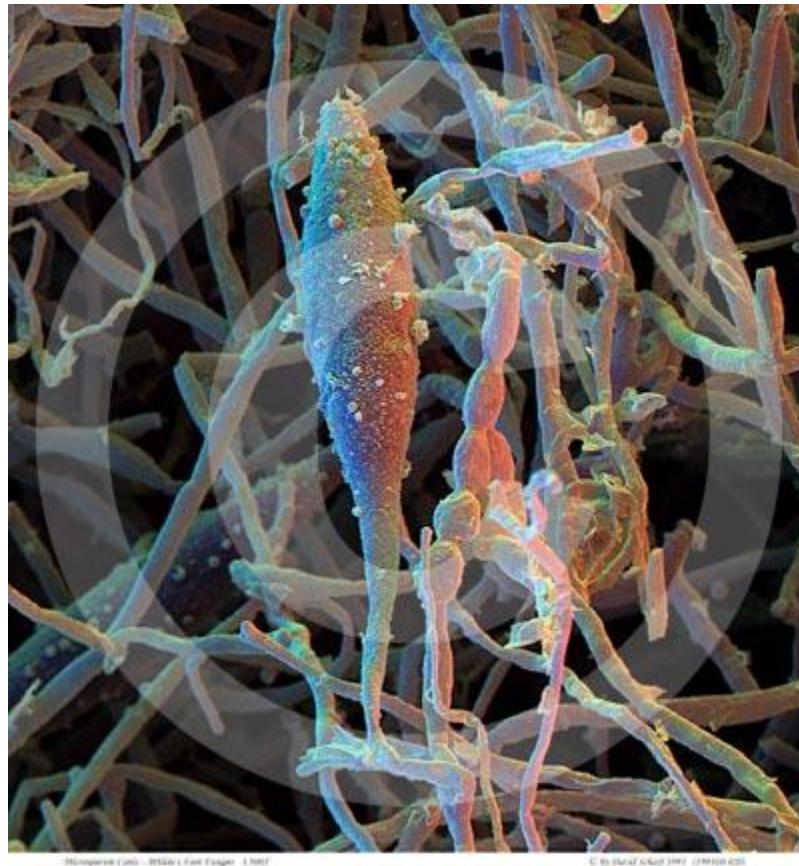






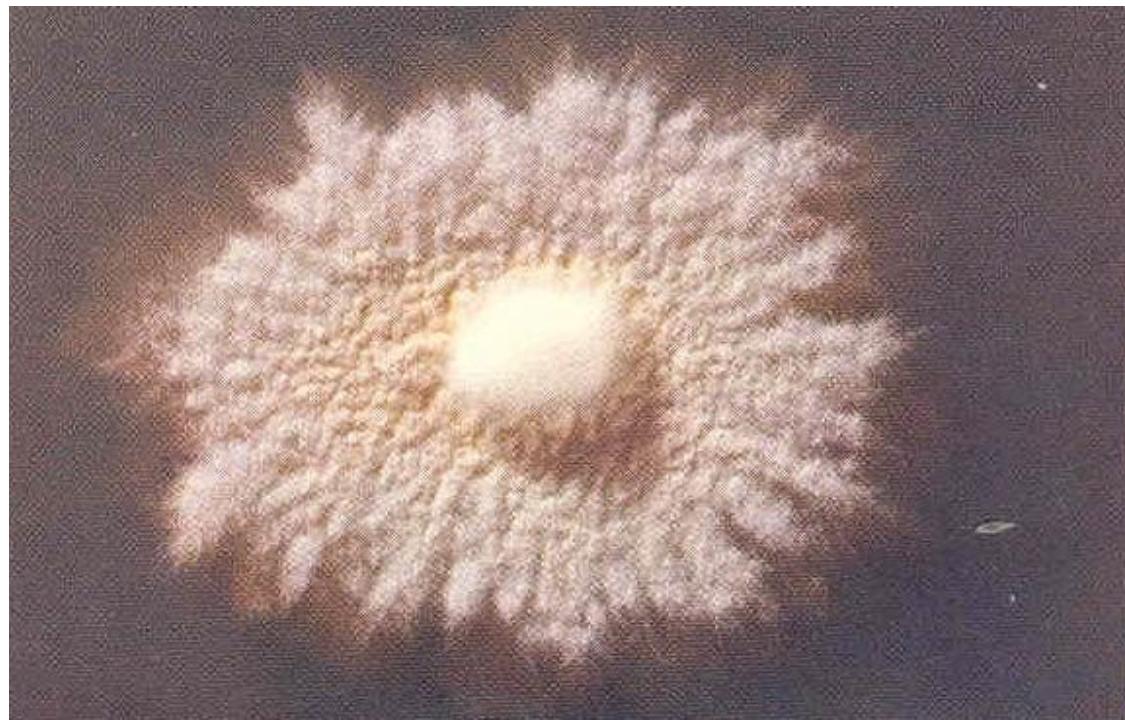
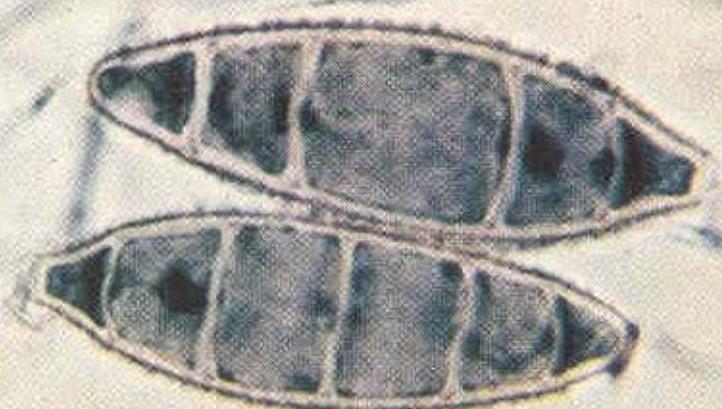


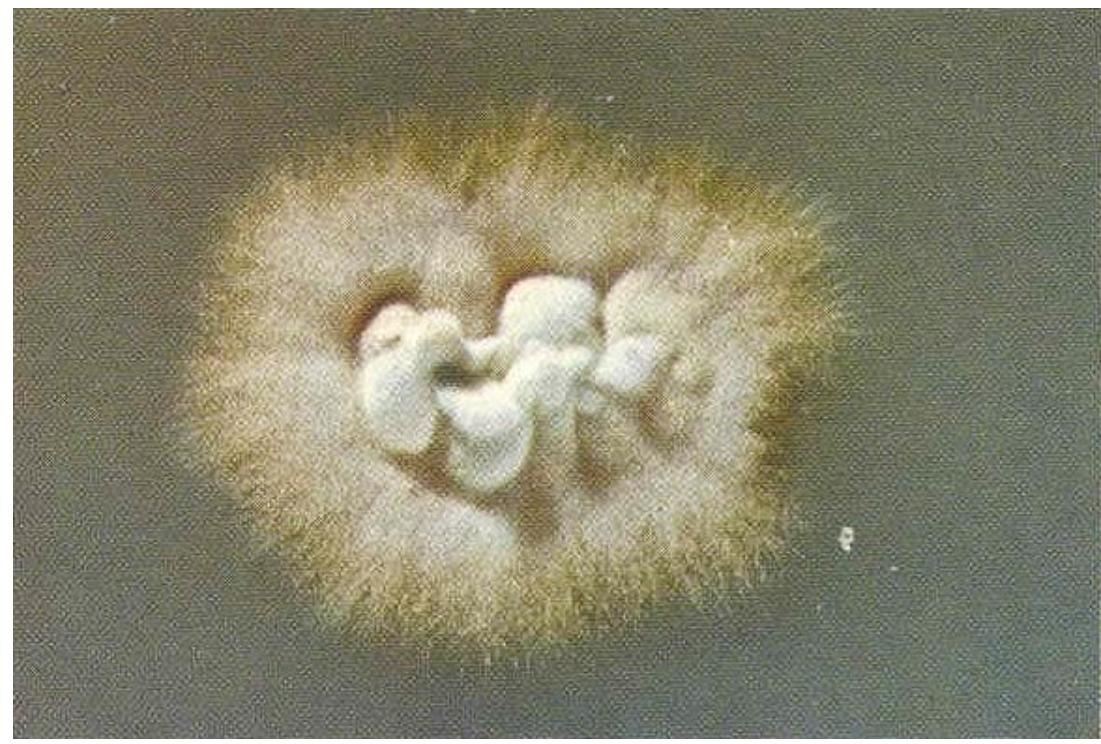
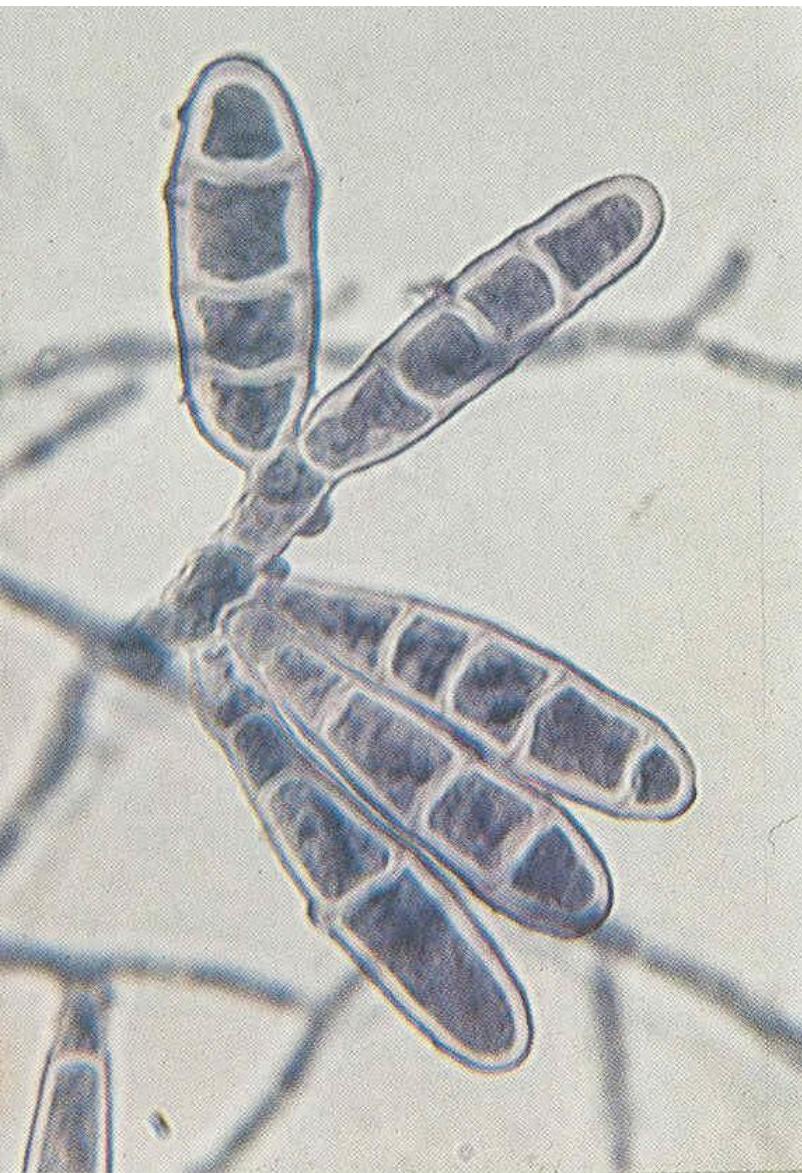
M. canis



Microsporidium canis - SEM of Egg Tissue - L. Schaff

© by David Schaff 1991 (299100420)



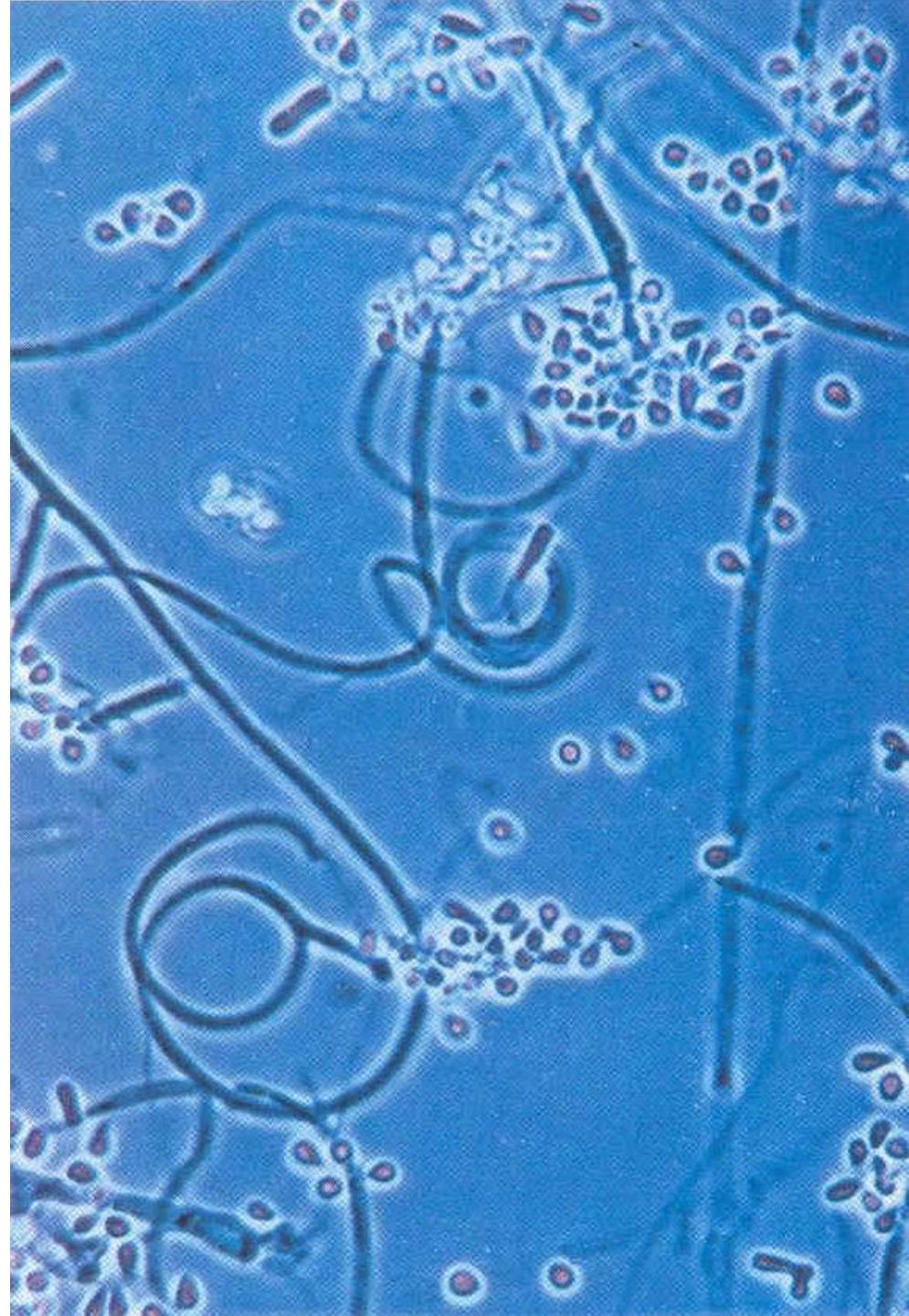


E.floccosum



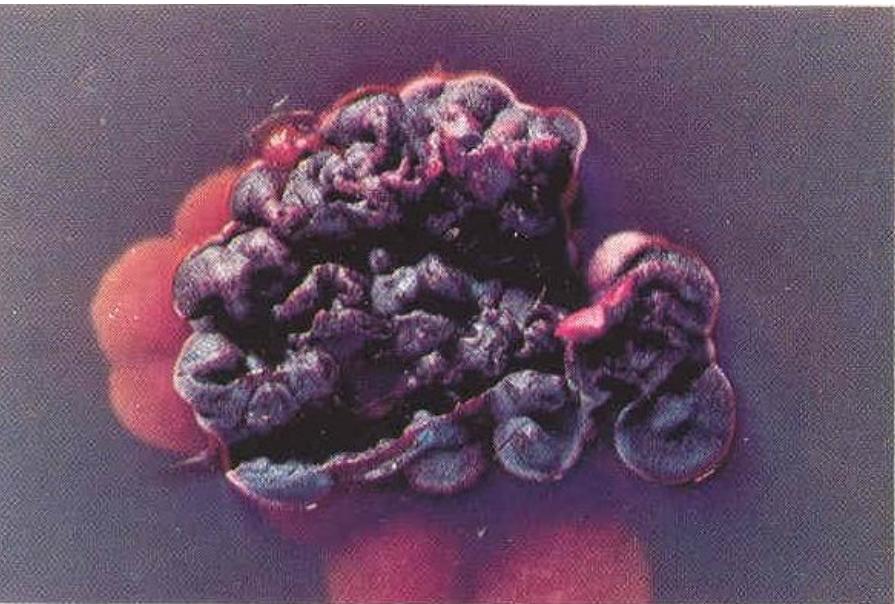
Scanning electron micrograph of *Epichloe floccosum* (strain 96-180)

© by David Schloss 1998 (29915245)





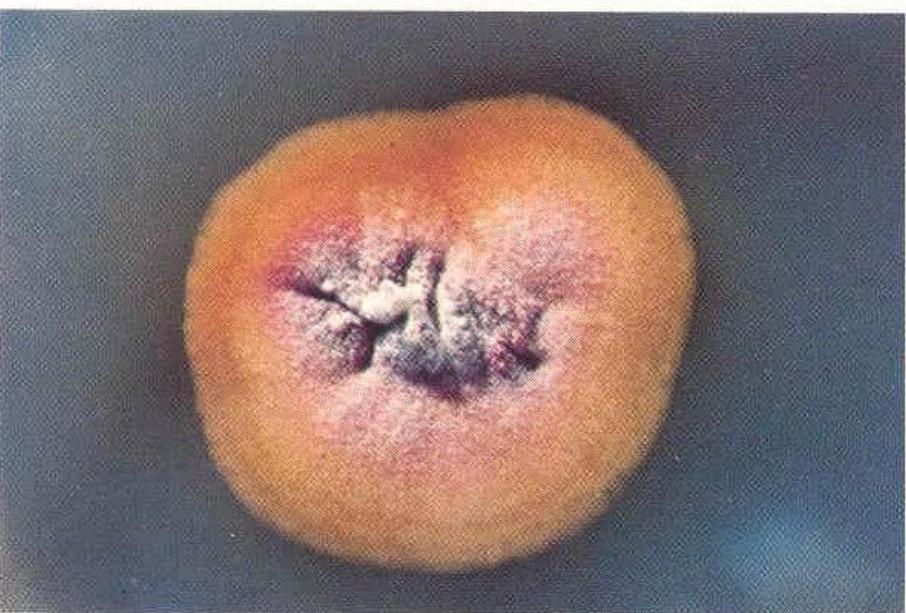
ripe berries



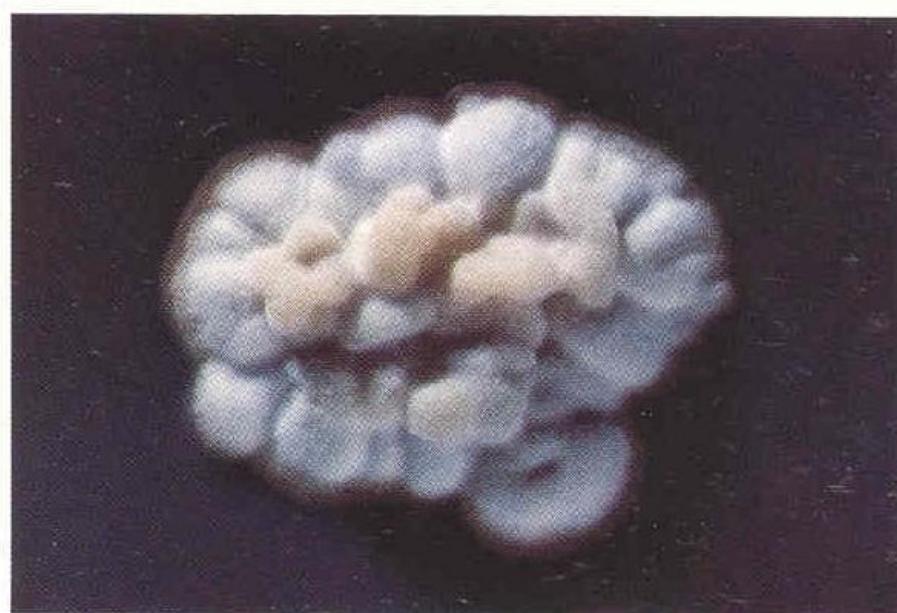
42.1 Mycobiotic agar, 20 days



42.2 Mycobiotic agar, 20 days



42.3 Mycobiotic agar, 20 days



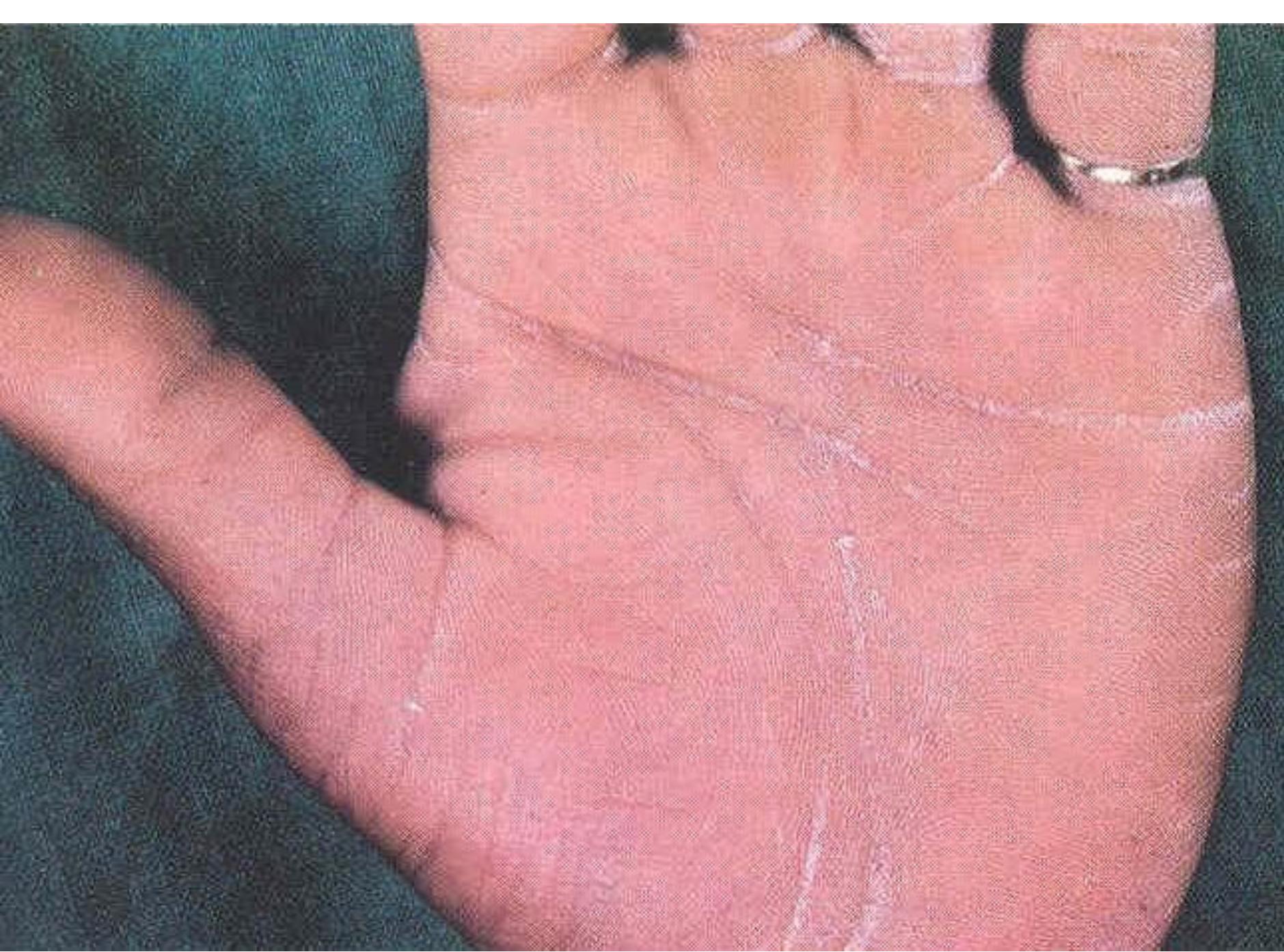
42.4 Sabouraud's dex. agar, 20 days

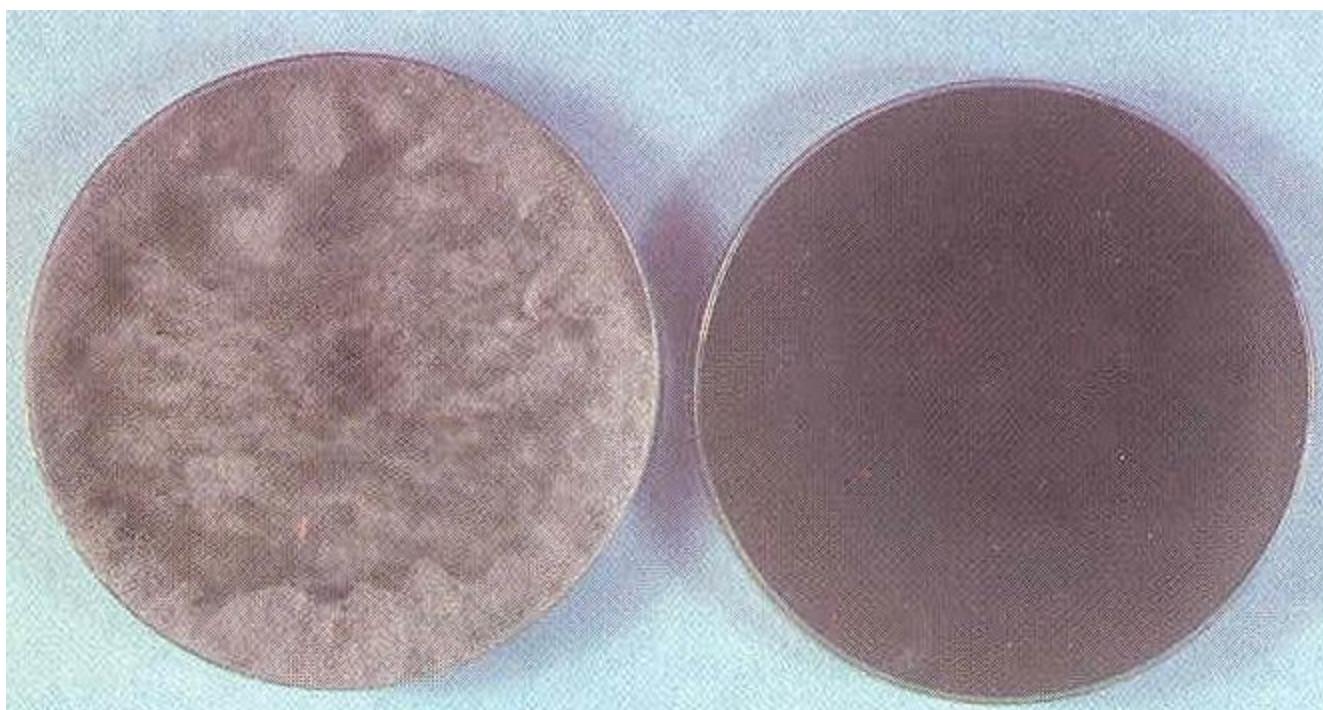
Scytidium infections:

1-Neoscytalidium dimidiatum

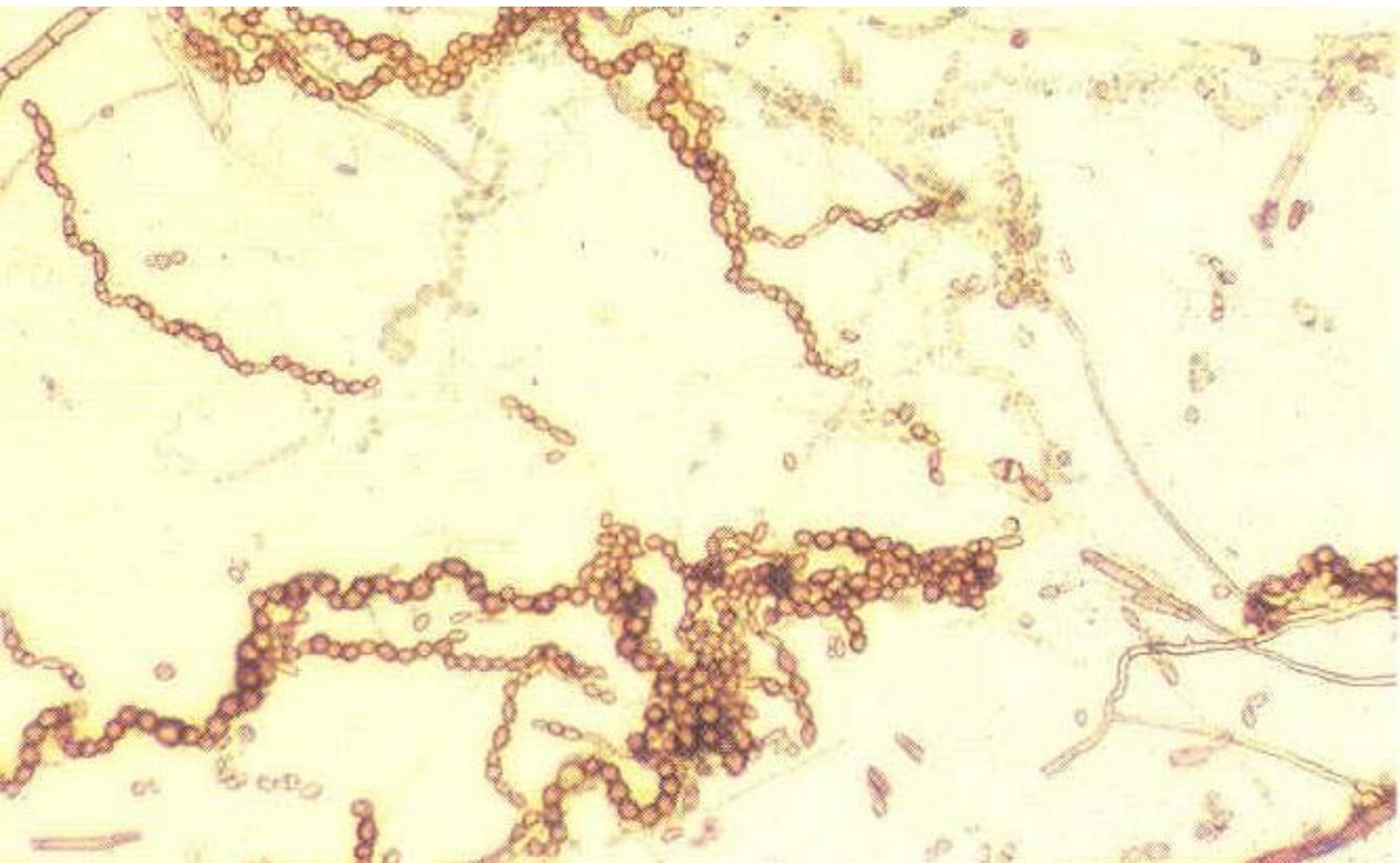
2-Neoscytalidium hyalinum

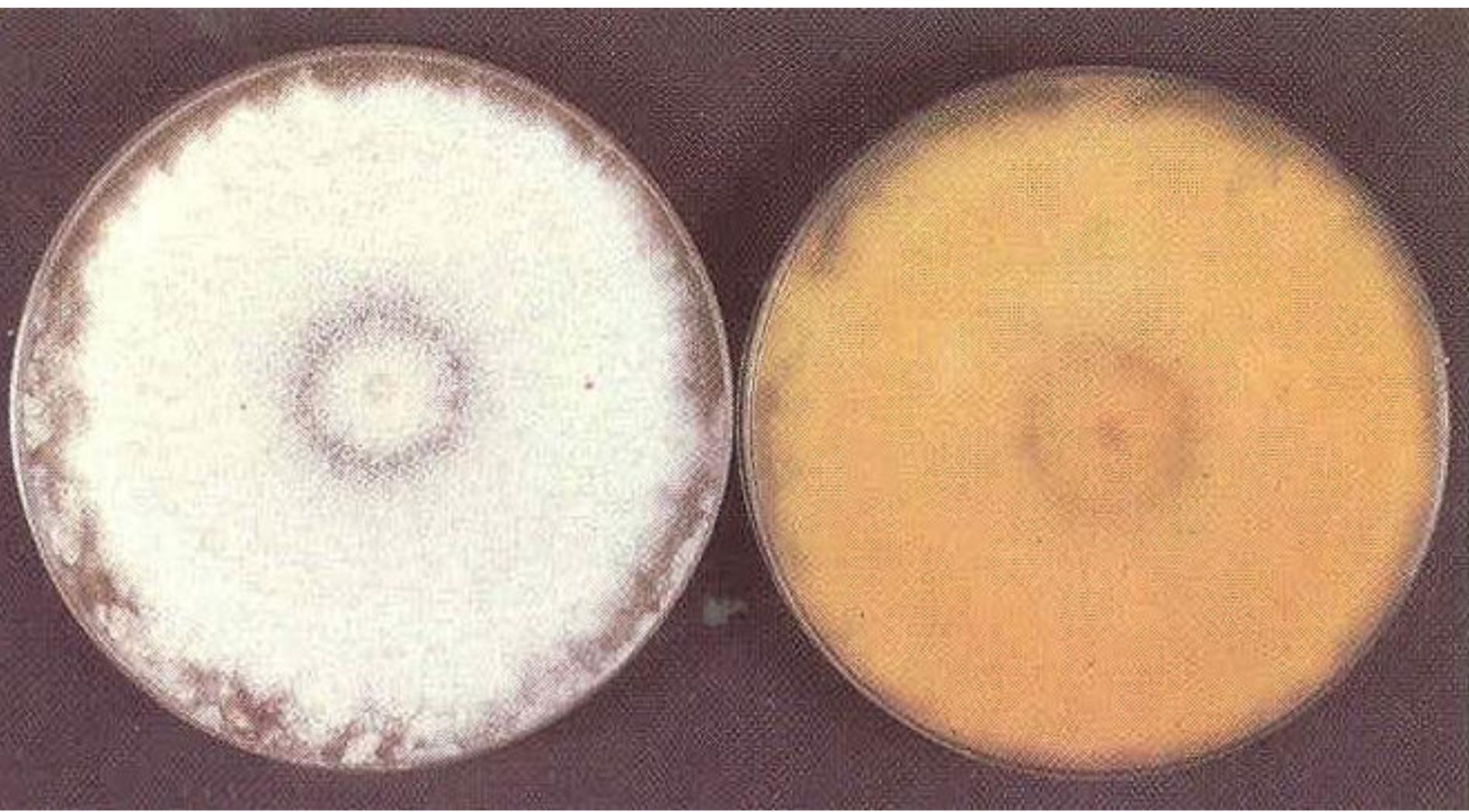












Treatment:

➤ No satisfactory therapy

➤ Whitfield's ointment for sole
and palm

- Ketoconazole cream
- Itraconazole
- Whitfield's ointment



Sit down and relax

