





FUNGAL INFECTIONS

■ Fungal infections may be caused by :

- 1) **Dermatophytes** : causes superficial infections, and are classified into : microsporum, trichophyton & epidermophyton
- 2) **Yeasts**; e.g. malassezia fufur (causes pityriasis versicolor) & candida albicans

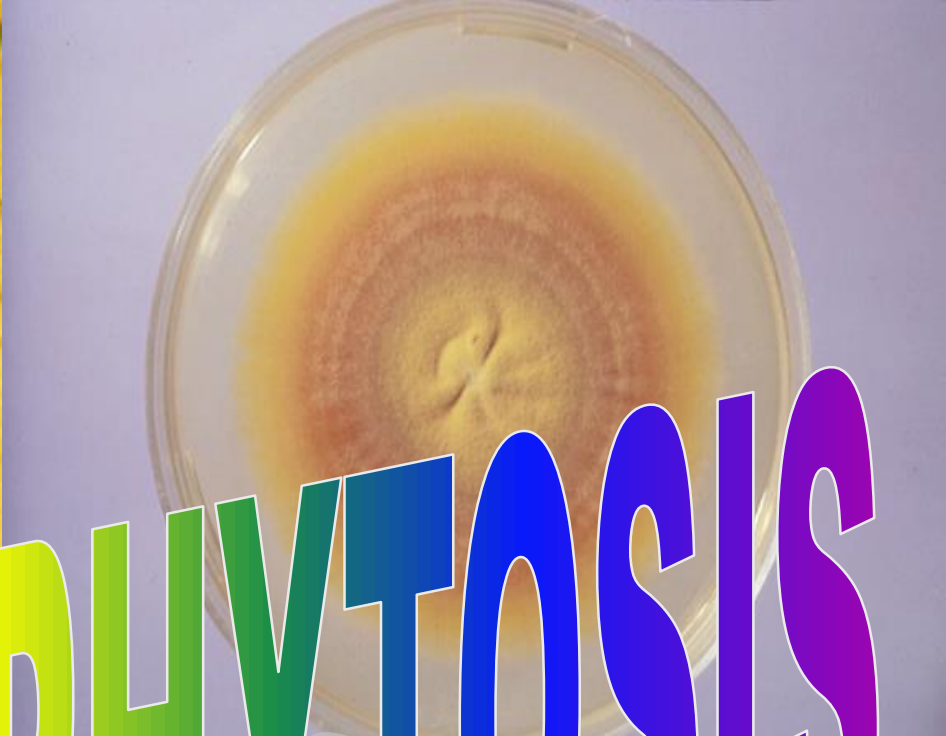
■ Source of infection :

- 1- From human (anthropophilic species)
- 2- From animals (zoophilic species)
- 3- Rarely, from soil (geophilic species)

Yeast-Mycelial (Y-M) shift

The fungus changes from budding yeast (Y) phase "commensal state" to mycelial (M) phase "pathogenic state"

DERMATOPHYTOSIS



■ Clinical types of dermatophyte infections :

according to *site* they are classified into:

- 1- Tinea capitis (Ringworm of the scalp)
- 2- Tinea corporis (Tinea circinata)
- 3- Tinea barbae (Ringworm of the beard)
- 4- Tinea cruris (Ringworm of the groin)
- 5- Tinea pedis (Ringworm of the feet)
- 6- Onychomycosis (Fungal infection of the nails)

(1) Tinea capitis (Ringworm of the scalp)

- Mainly in school children, more in boys than girls
- Main causative fungi in Egypt are *Trichophyton violaceum* and *Microsporum canis*

■ Clinical picture :

1- **Scaly type** : single or multiple scaly patches, often circular in shape, with numerous broken off (2-3 mm long) dull-grey (lusterless) hairs

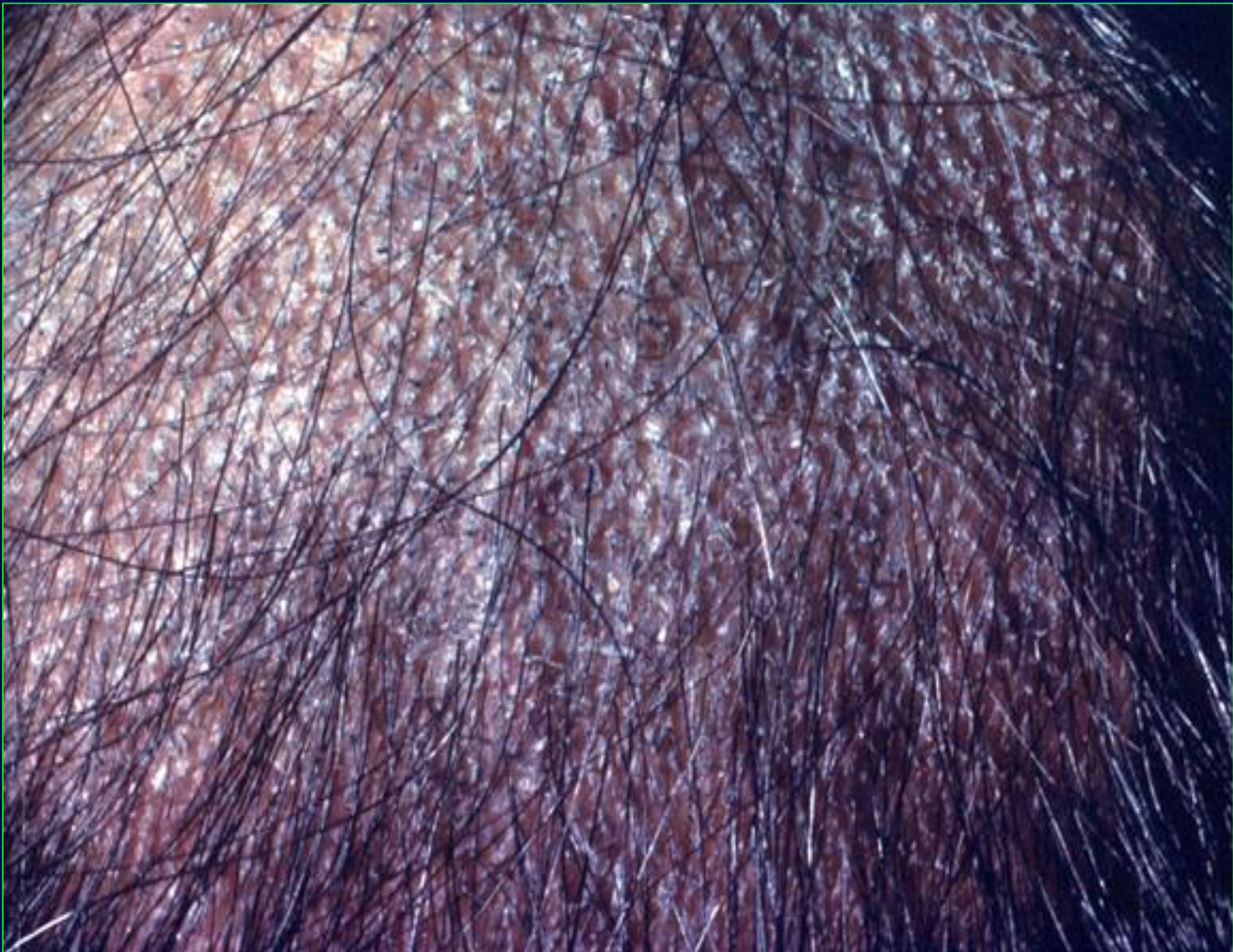
D.D. : psoriasis, seborrheic dermatitis, P.R.P













2- Kerion (inflammatory type) : caused by animal fungi, presented as boggy indurated swellings with crusting and loose hairs; follicles may discharge pus; in extensive lesions, fever, pain and regional lymphadenopathy may occur; may be followed by scarring & permanent alopecia

D.D. : pyogenic abscess, impetigo







Kerion







DOIA

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3- Black-dot type : bald patches with formation of black dots as the affected hair breaks at the surface of the scalp

D.D. : alopecia areata, seborrheic dermatitis



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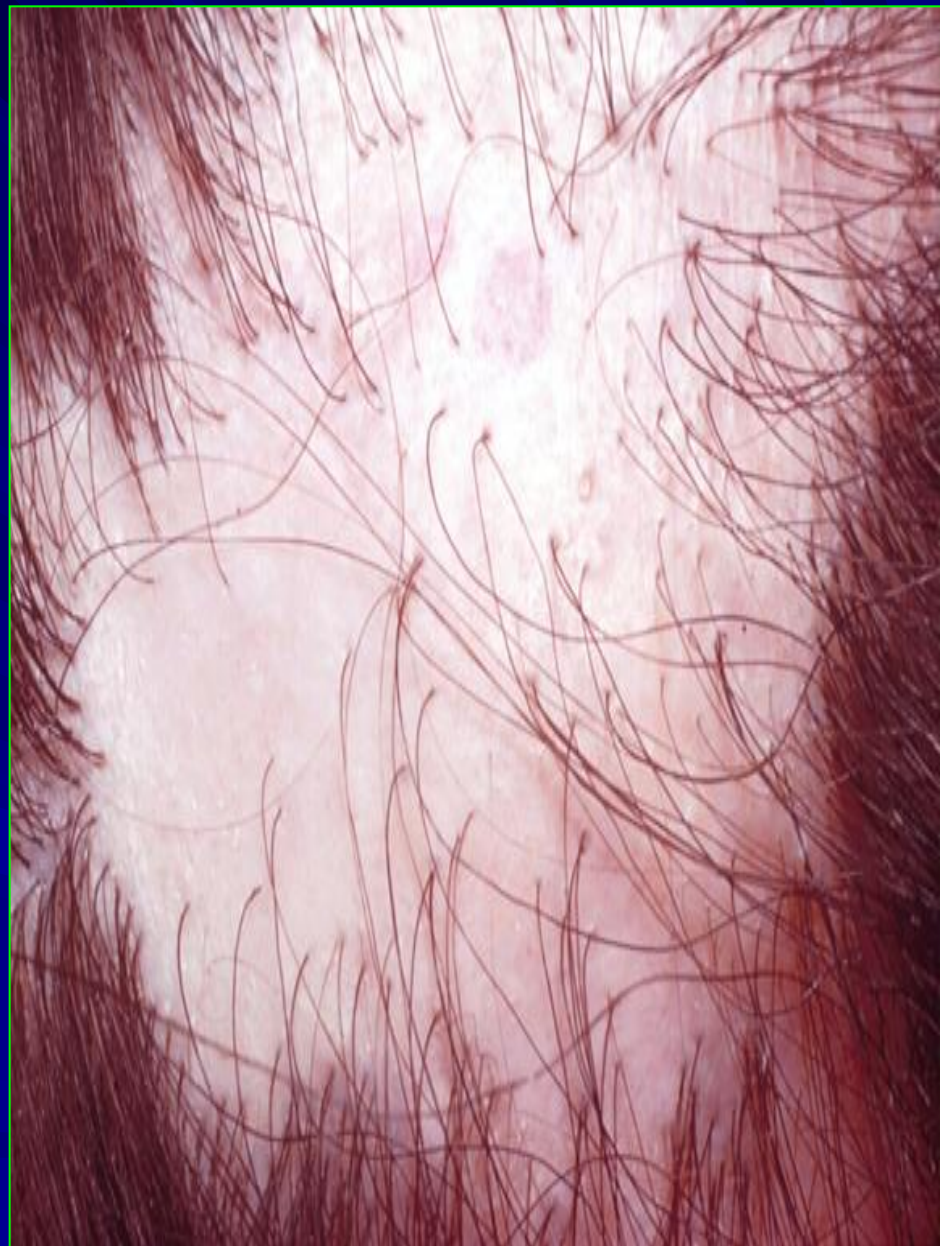


4- **Favus** : caused by *Trichophyton schoenleinii* and characterized by yellowish, cup-shaped crusts (scutula); each **scutulum** develops round a hair, which pierces it centrally; and have distinctive mousy odour; cicatricial alopecia is usually found in long-standing cases

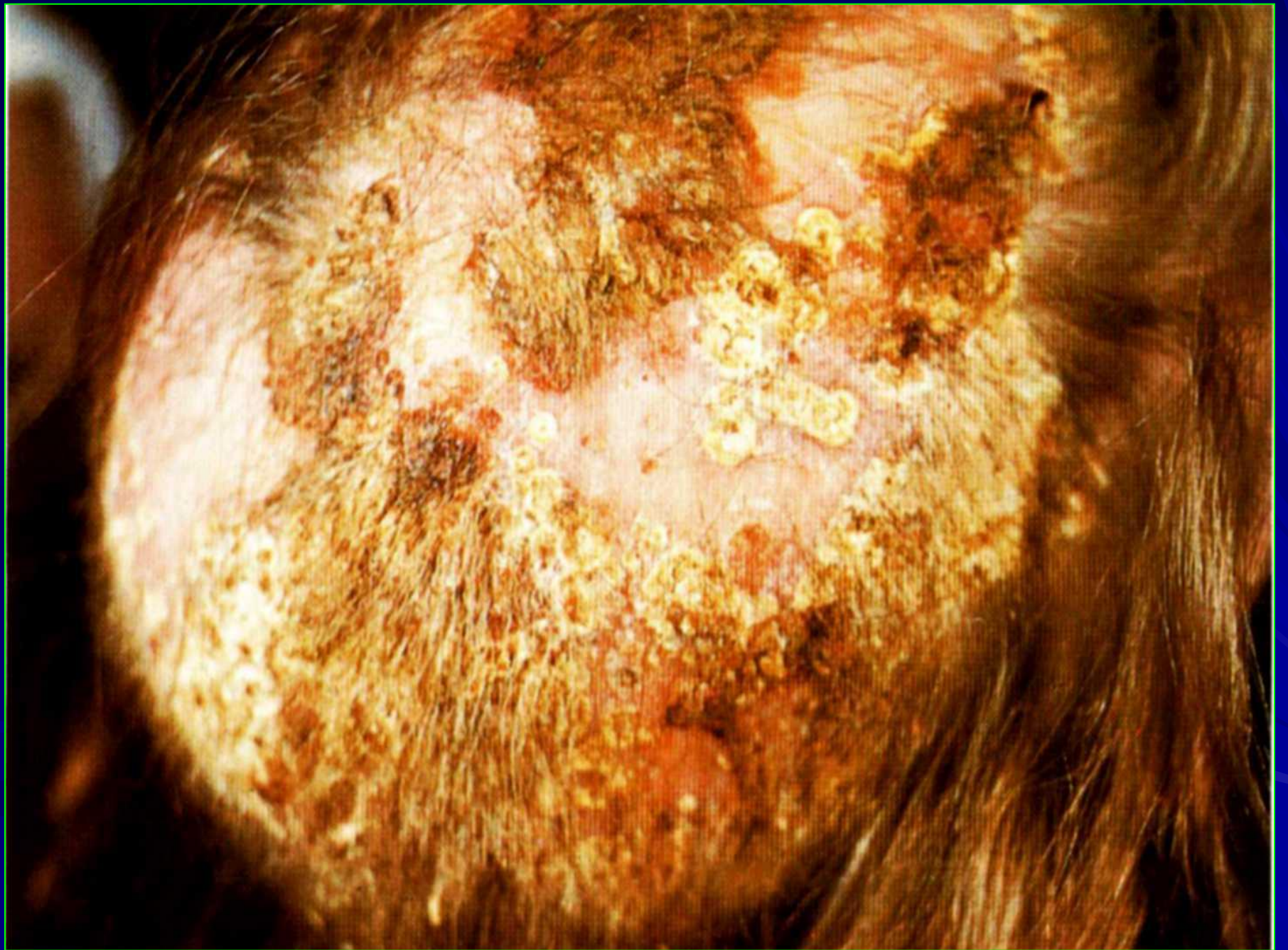
D.D. : psoriasis, seborrheic dermatitis (early stage), DLE, lichen planus (atrophic stage)



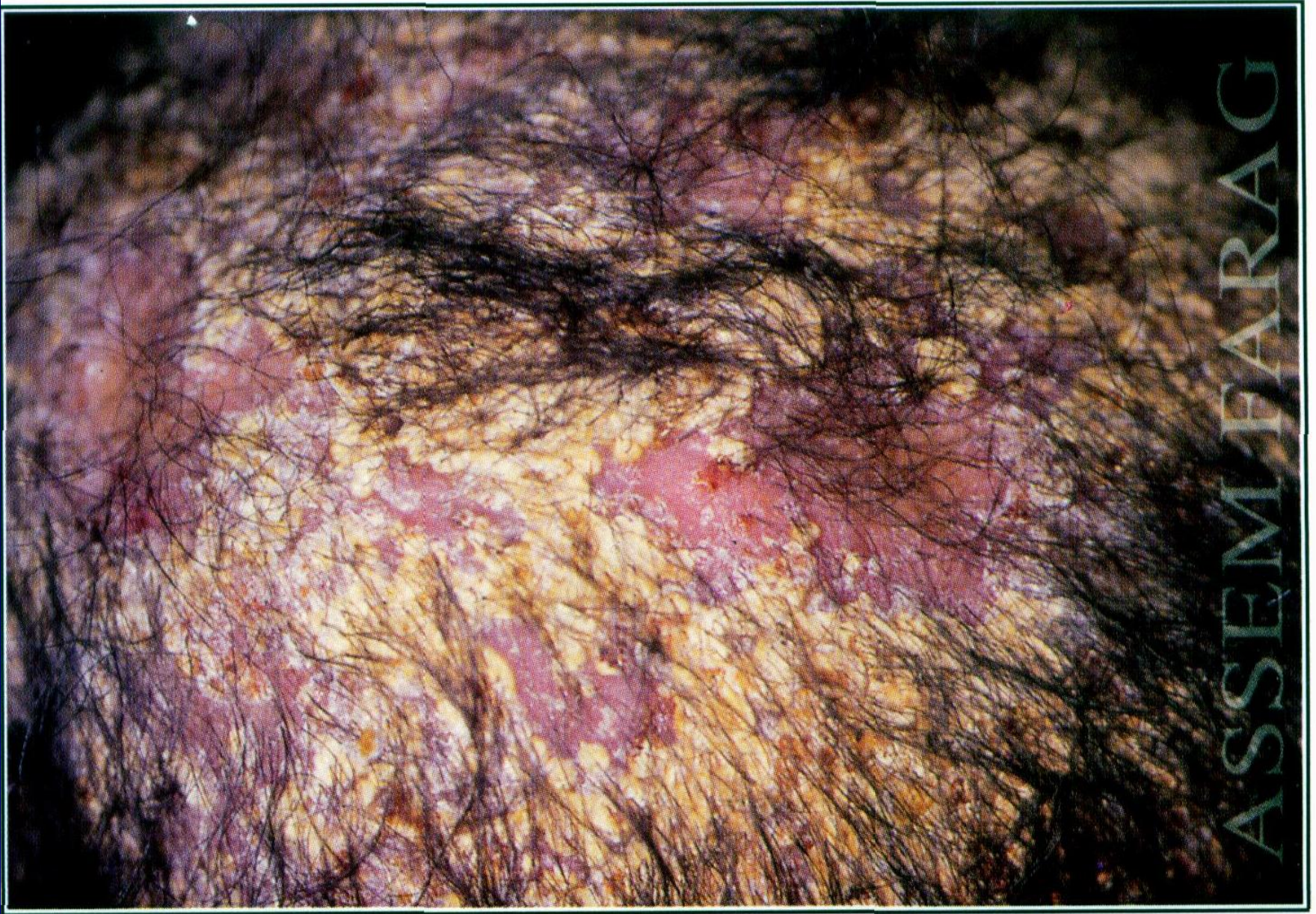
Favus



After treatment








ASSEM FARAG

■ Modes of infection :

- 1- Direct contact with infected child
- 2- Indirect : use of patient`s fomities as brushes & caps

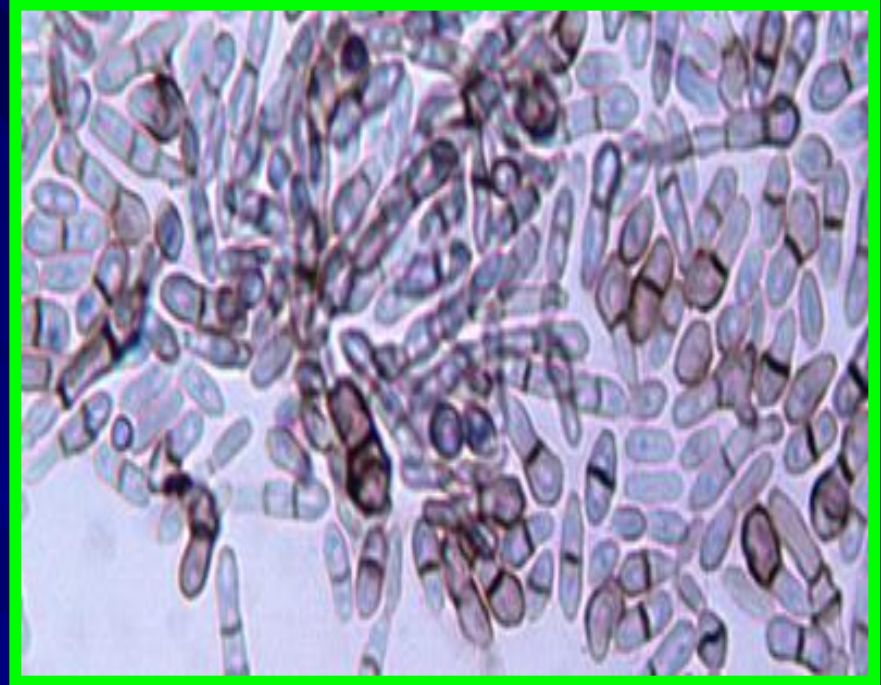
■ **Diagnosis :**

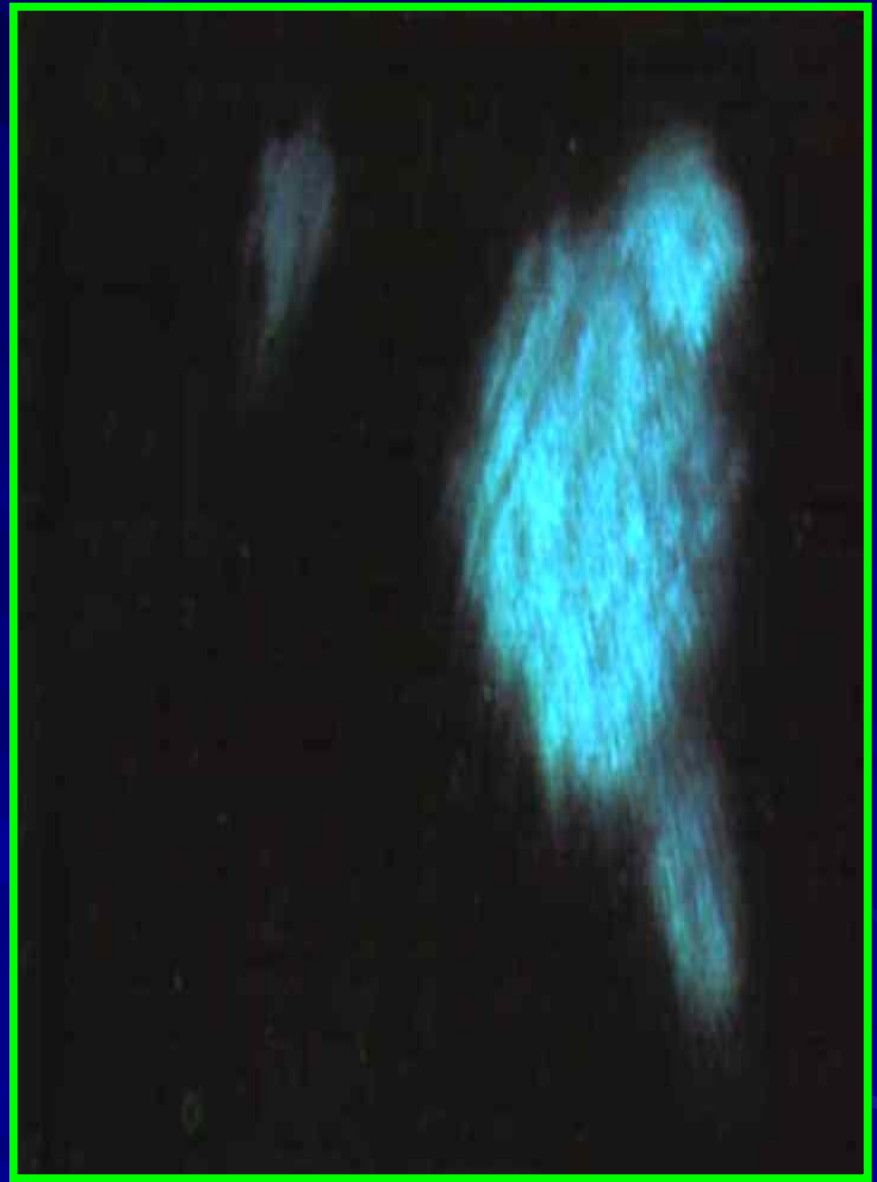
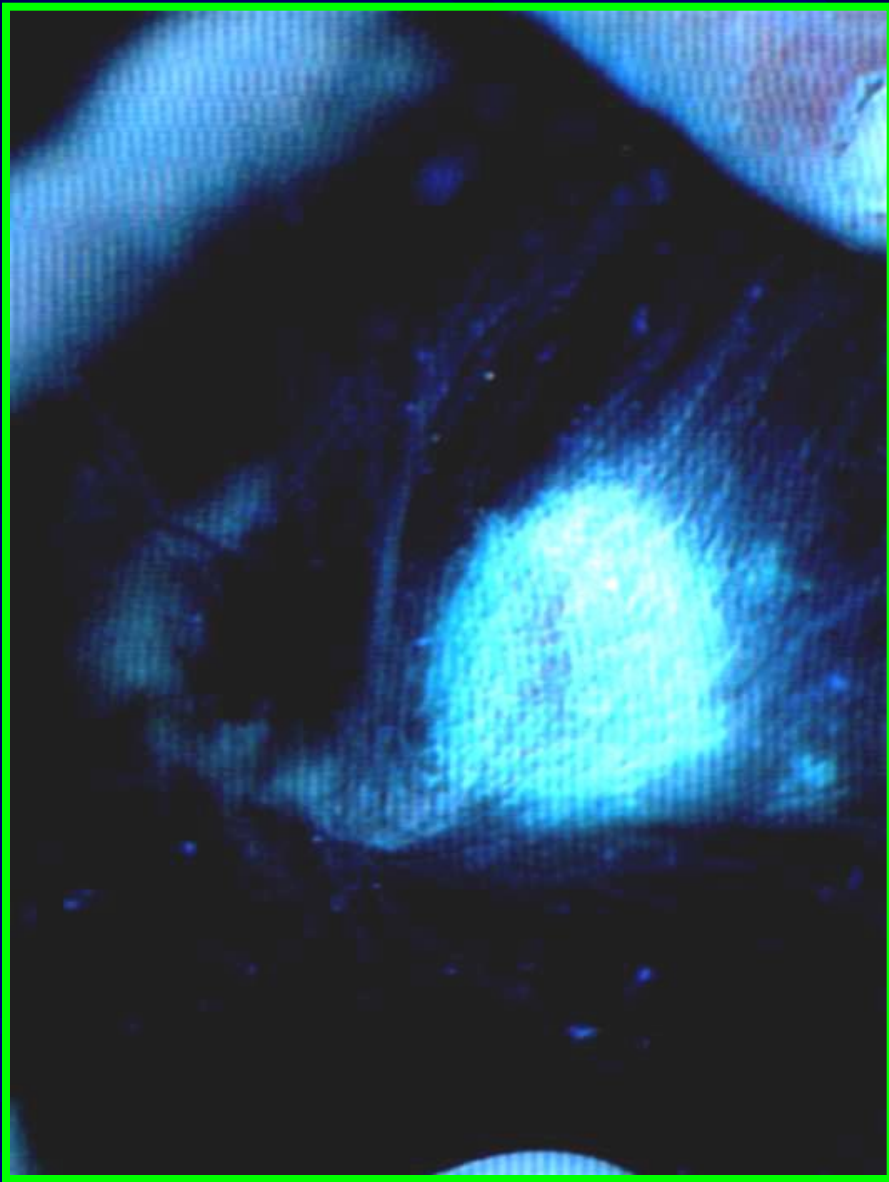
1- Clinical

2- **Wood`s light** (long-wave UVR passing through a glass containing nickel oxide) : Some fungi  green fluorescence

3- **Direct microscopic examination** : of infected hair & scales using 10-20 % KOH to demonstrate fungal spores

4- **Culture** : on Sabouraud`s medium





Wood's light examination



← *Microsporum canis*



T. schonleinii →

■ Treatment :

A) Topical treatment : (little effect)

1- Whitfield`s ointment

2- Imidazoles :e.g. clotrimazole, econazole,
ketoconazole

3- Allylamines :e.g. terbinafine

B) Systemic treatment :

1- Griseofulvin :10 mg/kg/day for at least 6 weeks and 8 weeks in favus

2- Itraconazole, fluconazole, terbinafine : only in selected cases

■ **Case scenario:**

■ **24 year old woman presents with erythematous annular lesions with active border on trunk of one week duration. She has no systemic manifestations.**

■ **a-What's your diagnosis?**

■ **b-Enumerate differential diagnosis for this case?**



THANK

YOU