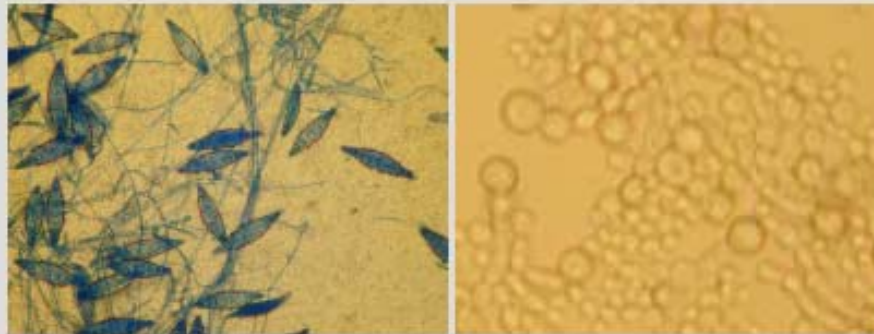


Three clinical cases
Diagnostic and treatment challenges in skin and mucosal
fungal infections

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Programme

Superficial Fungal Infections.

Case: Outbreak of tinea capitis

- During a 6 month period 5 children were referred to hospital with diagnoses
 - i) therapy resistant tinea capitis
 - ii) tinea capitis obs pro
- Only partial efficacy from terbinafine for 3 months

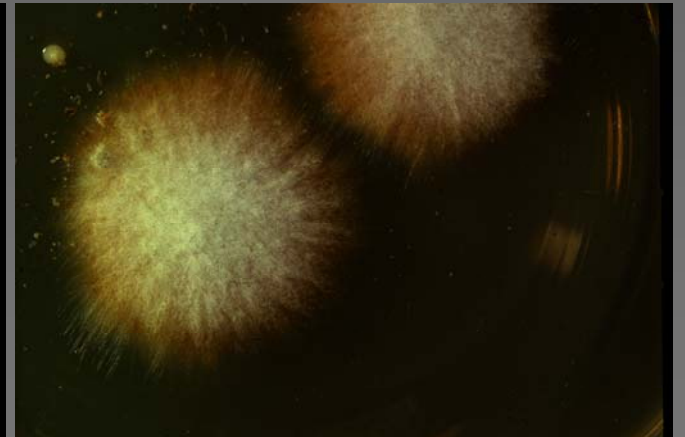


Case: Outbreak of tinea capitis

- *Previous mycology:*

Different outcomes from different laboratories

- Negative
- Positive cultures for *T. rubrum*, *M. canis*

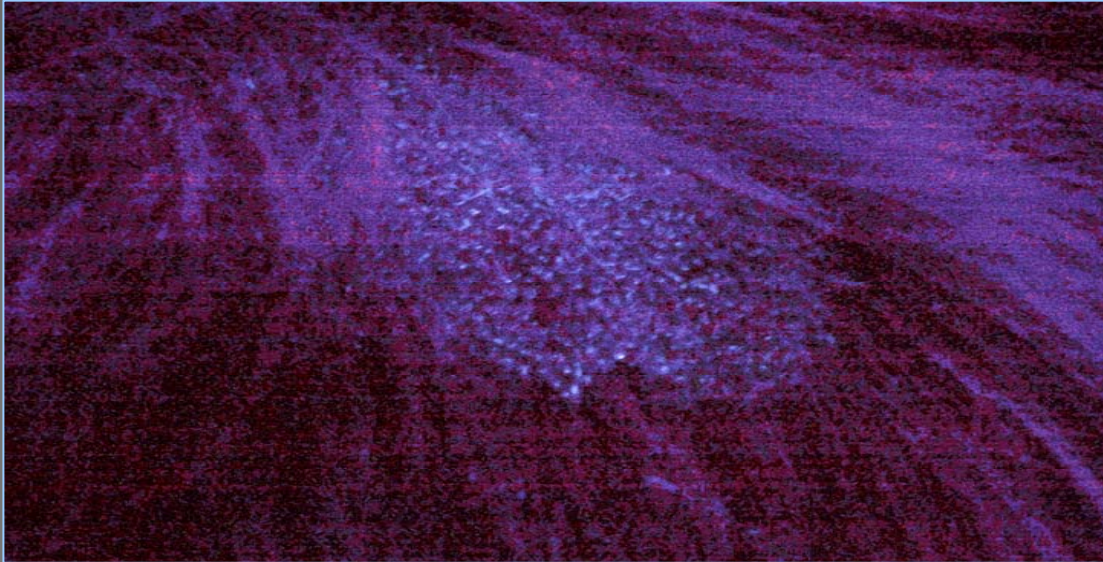


Case: Outbreak of tinea capitis

- Idea that some children belonged to the same kindergarten and that other children had scaly, itchy lesions
- Contact to health authorities to delimit the problem
- Focus 1 kindergarten
- Survey of children, family members and staff
- 98 persons examined clinically and mycologically during 1 month
- 12 patients identified:
 - 8 tinea capitis
 - 4 tinea corporis

Mycology:

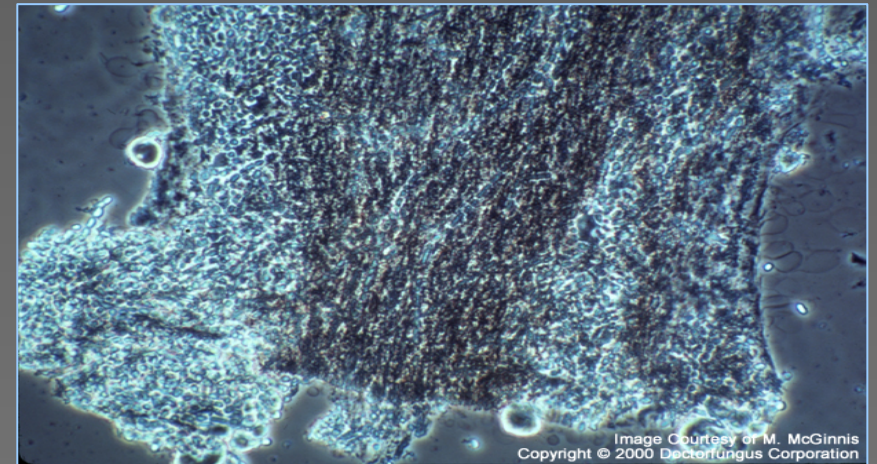
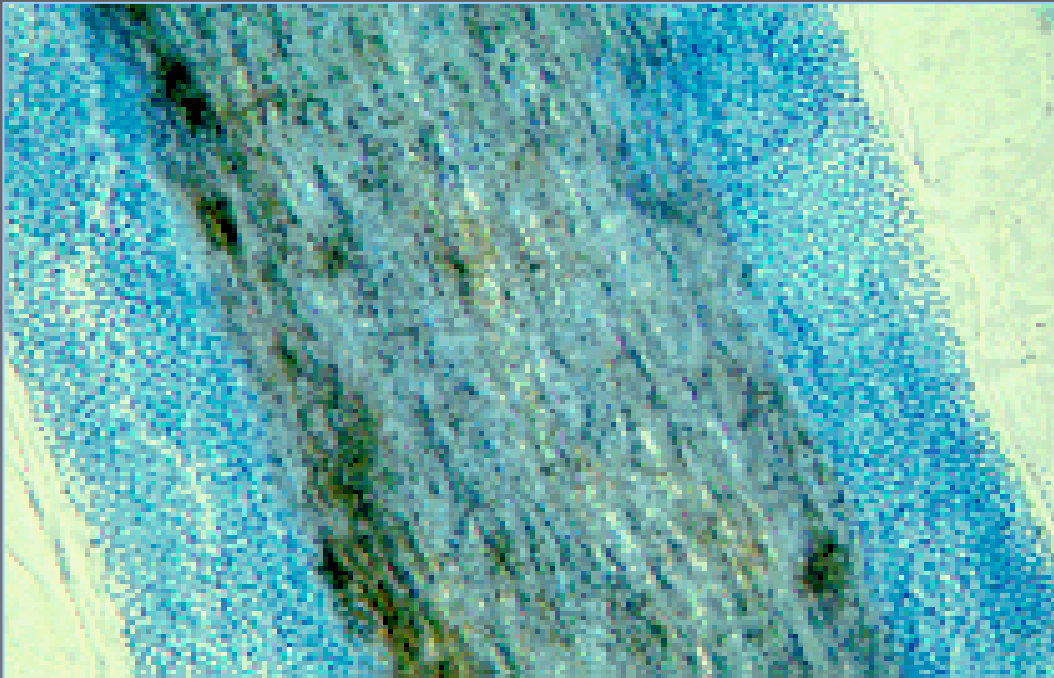
- Wood's light:
- Positive with yellow-green fluorescence



Mycology:

- Microscopy:

- Ectothrix - small spores

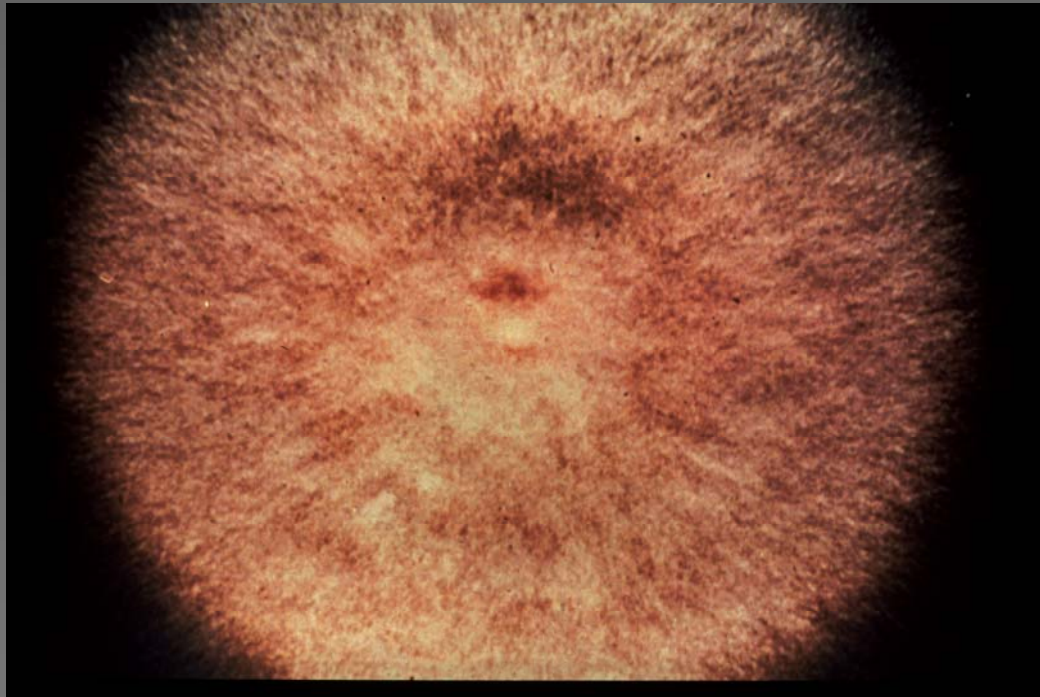


- arthroconidia mainly on the outside of the hair shaft

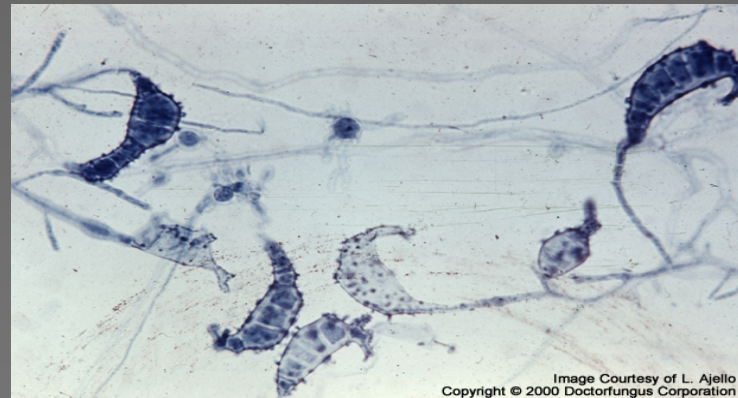
Mycology:

- Culture:

- *Microsporum audouinii*



- Flat, spreading culture
- Greyish white to light tan-white

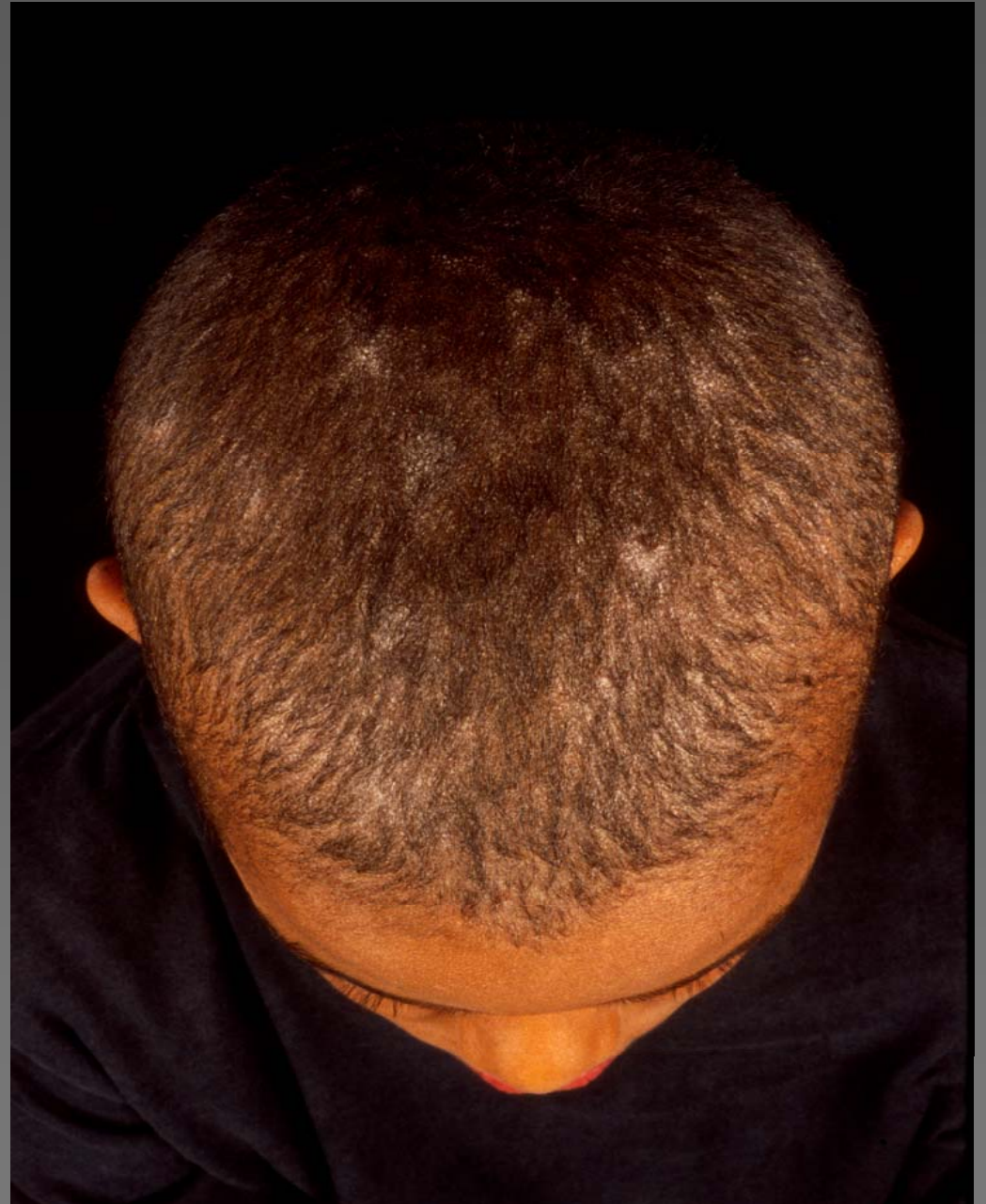


- Chlamyconidia
- Macroconidia rare, resemble *M. canis*, more irregular in shape

Diagnosis:

- *Microsporum audouinii*
- *Anthropophilic infection*
Transmitted by direct and indirect contact between humans
- *Index patients*
Siblings of Danish/African nationality

Probably infected during visit to Tanzania



Case: Outbreak of tinea capitis

Ref:

An outbreak of tinea capitis in a child care centre

Merete Hædersdal, Jørgen Stenderup, Bente Møller,
Tove Agner & Else Lyngsøe Svejgaard
Danish Medical Bulletin 2003; 50 (1): 83-4.

- 12 patients identified:
 - 8 tinea capitis
 - 4 tinea corporis
 - No healthy carriers
- Treatment experiences

Case: Outbreak of tinea capitis

Treatment experiences - M. audouinii:

Tinea capitis

Not easy.....

Terbinafine: 3 months → partial efficacy

Itraconazole: Not registered for treatment of children in Dk

Fluconazole: 8-16 mg/kg/week for 9 months → 2 patients cured

Griseofulvin: Unregistered in Dk
Permission from the Danish Medicines Agency
20 mg/kg/day for 3 months → all patients cured

Case: Outbreak of tinea capitis

Treatment experiences - M. audouinii:

Tinea capitis

Topical terbinafine and ketoconazole to prevent dissemination of disease

Children stayed at home from kindergarten for 2 weeks after diagnosis

Tinea corporis

Easy.....

Responded well to topical and systemic treatments

Tinea capitis - take home messages

- Problems with spread of anthropophilic infections
Evt. contact to the health authorities in order to coordinate the efforts to prevent fungal transmission
- Difficulties with treatment of *Microsporum* infections:
Griseofulvin - 1. choice of treatment



Skin rash from terbinafine

- 3 cases -

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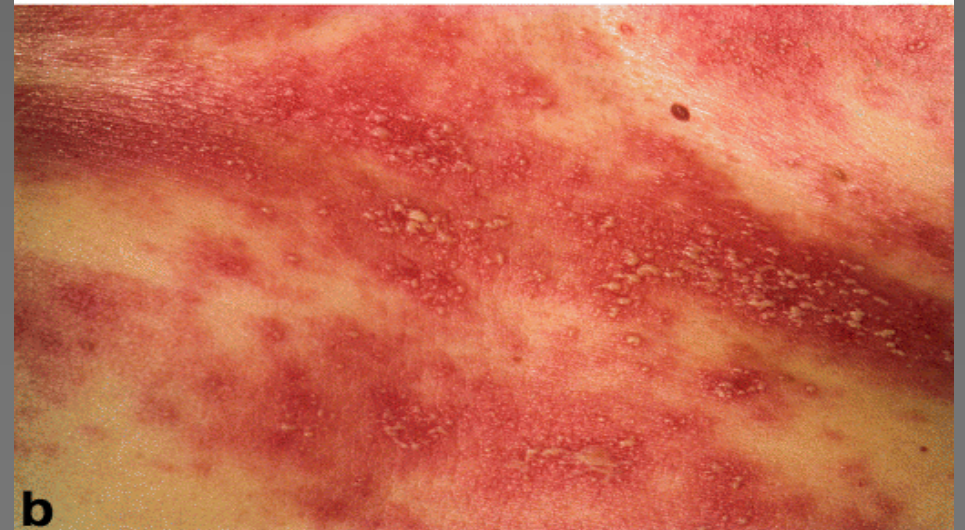
Terbinafine:

- Allylamine with fungicidal efficacy for dermatophytes
- Systemic treatment ineffective for candida infections due to high MIC-values
- Topical treatment effective for cutaneous candidosis



Terbinafine - case 1:

- 69 year-old woman with intertriginous redness in skin folds
- Systemic terbinafine given for 4 weeks due to suspected candidiasis
- After 3 weeks the patient develops generalised exanthema with intensive redness and pustules



Terbinafine - case 2:

- 44 year-old man with with abnormal nails suspected for fungal infection
- Mycology not performed
- Terbinafine given for 3 months
- The patient develops a truncal rash with erythema, scaling and annular elements
- Clinically and histologically consistent with subacute cutaneous lupus erythematosus



Terbinafine - case 3:

- 56 year-old man with psoriasis and abnormal nails suspected for fungal infection
- Mycology not performed
- Terbinafine given for 4 months



Terbinafine - case 3:

- After 4 months the patient develops itch and rash on truncus and extremities with intense erythema and papulo-pustulous elements



Terbinafine - take home messages.....

All 3 patients treated without mycological diagnosis !

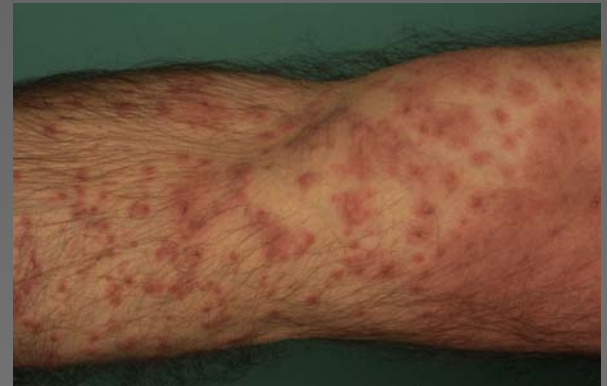
Case 1



Case 2



Case 3:



Always mycologic examination and diagnosis before systemic antifungal therapy !

Terbinafine - take home messages.....

Case 1



Candidiasis:

Systemic terbinafin is not efficient for candidiasis !

Terbinafine - take home messages.....

Case 2



Onychomycosis obs:

Terbinafine may provoke subacute cutaneous lupus erythematosus !

Terbinafine - take home messages.....

Case 3:



Psoriasis:

*Psoriasis nails may be misdiagnosed
as onychomycosis !*

Adverse effects to antimycotic drugs

Fluconazole	Gastrointestinale reactions 10% Skin rash 1 - 10% , headache, increased liver-enzymes
Griseofulvin	Gastrointestinale reactions Skin rash , headache, dizziness, depression
Itraconazole	Gastrointestinale reactions 10% Increased liver-enzymes - 4% Skin rash 1 - 10% , headache, dizziness
Ketoconazole	Toxic hepatitis <1%
Terbinafine	Gastrointestinale reactions 5% Skin rash > 10% including LE cutaneous, urticaria Reversible taste-disturbance <1% Pain from joints and muscles Liver- and bonemarrow influence



Thank you!