



Microsporum Canis infection: A case series

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ABSTRACT

Microsporum canis is a zoophilic dermatophyte commonly transmitted from cats to humans and presents with localized dermatophytosis. We report a case series of four patients with *M. canis* infection presenting as small, coin-shaped annular plaques with characteristic collarette of scales. All patients had a history of close contact with pet cats showing alopecic patches. Dermoscopy consistently revealed superficial scales, collarette of scales, scaling along creases, and diffuse erythema. Diagnosis was confirmed by KOH examination and fungal culture. All cases responded completely to topical and systemic azole therapy. This series highlights the role of dermoscopy and animal contact history in early diagnosis of *M. canis* infection.

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Keywords: *Microsporum Canis, dermatophytosis, dermoscopy.*

INTRODUCTION

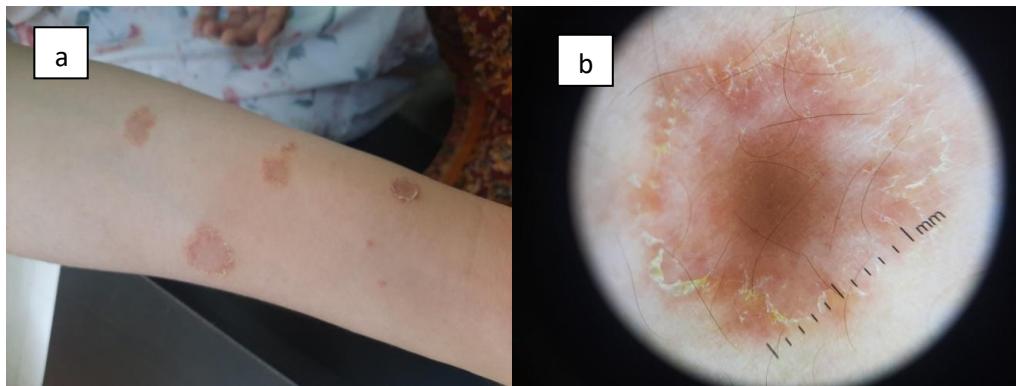
Microsporum Canis(*M. Canis*) is a worldwide diffused zoophilic dermatophyte and its infection has been associated with multifocal alopecia, scaling, and circular lesions in animals and with localised forms in humans, such as tinea capitis, tinea corporis, tinea pedis, and onychomycosis(1).This zoophilic fungus can be found in asymptomatic cats, which are its main reservoir, together with some other mammal species.(2) Due to reasons unexplored, the prevalence of dermatophytosis due to *M. Canis* is less prevalent in India (0.76–4.5%)(3).We report a series of 4 cases due to Microsporum Canis.

Case:

A 23 year old female presented with multiple small annular lesions on her both upper limbs, breast and groin of 1 month duration. Dermatological examination revealed multiple small annular plaques of about 2cm diameter with collarette of scales predominantly on forearms, breast and groin. Dermoscopy showed superficial scales, collarette of scales, scaling along creases and diffuse erythema. (fig1)

Fig 1a- Multiple small annular plaques with collarette of scales

1b-Dermoscopy showing superficial scales, collarette of scales, scaling along creases and diffuse erythema



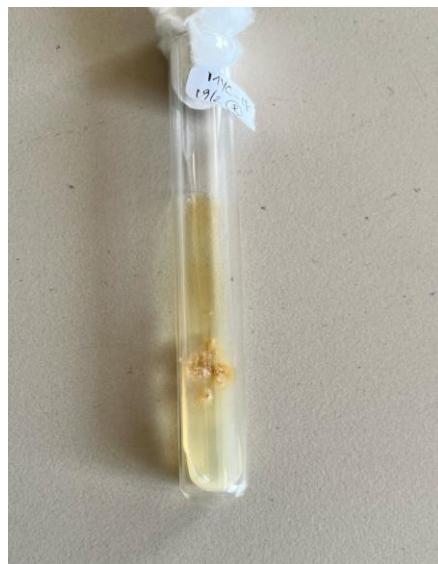
She had consulted a dermatologist and was being treated with moisturizers and topical steroids with a differential diagnosis of pityriasis rosea and guttate psoriasis. On probing further she gave a history of pet cat at home with circular patches of hair loss and she used to cuddle and sleep with the cat. (fig 2).

Fig 2- Pet cat with patches of hair loss behind ear



KOH from the lesion showed fungal hyphae and fungal culture showed whitish coarse fluffy or fur like colony with yellow at the periphery characteristic of *Microsporum Canis*. (4) (fig 3)

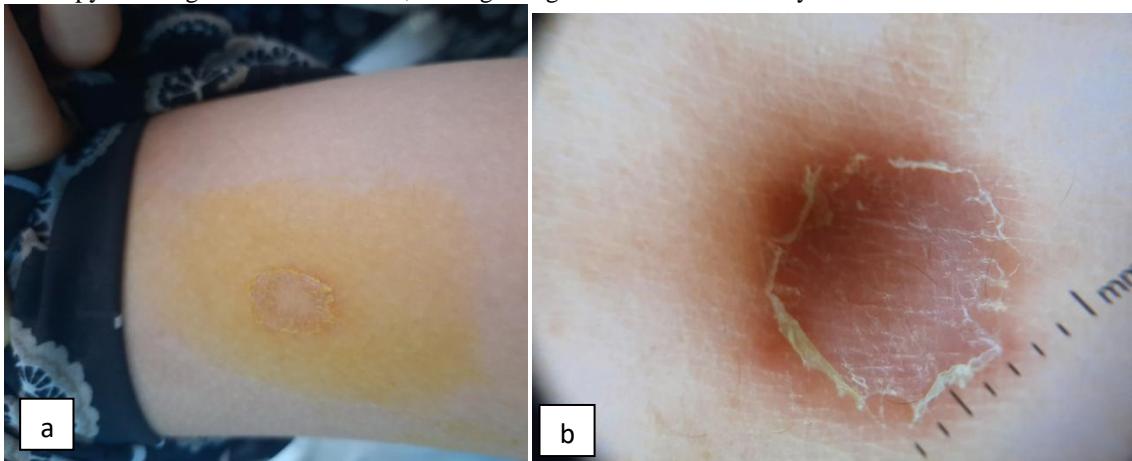
Fig 3- Culture showing whitish coarse fluffy or fur like colony with yellow at the periphery characteristic of *Microsporum Canis*



2 weeks back her 15 year old sister also noticed similar small annular lesions with collarette of scales on her right forearm. Dermoscopy showed superficial scales, collarette of scales, scaling along creases and diffuse erythema. (fig 4).

Fig 4a- Annular lesions with collarette of scales on forearm

4b-. Dermoscopy showing collarette of scales, scaling along creases and diffuse erythema



1 week back their mother a 40 year old lady also noticed a similar small annular lesion on the dorsum of her foot. Dermoscopy showed similar findings. (fig 5)

Fig5a-Mother with small annular lesion on the dorsum of foot, 5b- Dermoscopy showing superficial scales, collarette of scales, scaling along creases and diffuse erythema.



KOH from the lesion of both the patients showed fungal hyphae and fungal culture showed whitish coarse fluffy or fur like colony with yellow at the periphery characteristic of *Microsporum Canis*. All the 3 patients were treated with topical and systemic azole antifungals for 2 weeks with complete subsidence of lesions.

A 23 year old female presented with a small annular plaque on left upper eyelid and arms of 3 weeks duration and gradually increasing in size. She gave a history of contact with pet cat at home. Dermatological examination revealed a small erythematous annular plaques of about 3x2cm with a collarette of scales on left upper eyelid. 2 smaller plaques of size around 1x1cm was seen on both upper limbs. Dermoscopy showed superficial scales, collarette of scales, scaling along creases and diffuse erythema.(fig 6).

Fig6 a -small annular plaque on left upper eyelid, 6b,c- Small annular plaque on arms,6d- Dermoscopy showing diffuse erythema, superficial scales, collarette of scales and scaling along creases



KOH from the lesion was negative but fungal culture showed *Microsporum Canis*. She was treated with topical and oral azole antifungals for 2 weeks with complete cure.

DISCUSSION

All the 4 patients with *Microsporum Canis* infection had history of contact with pet cat, showed small sized /coin sized annular lesions and collarate of scales. Dermoscopy revealed consistent findings of superficial scales, collarette of scales, scaling along creases and diffuse erythema which can aid in diagnosis.

In India, very few people used to keep pets but there is a rising trend now probably due to a better economic status. There are lots of rodents, stray dogs and cats, which could be a source or the agents for the spread of *T. Mentagrophytes* and *Microsporum Canis* infection. Also, many people dry their clothes and bed linen/bedding outside their houses, and there is every possibility of the clothes and linen getting contaminated either directly or indirectly from the environment³.

The genus *Microsporum* is commonly treated with griseofulvin, fluconazole, itraconazole, ketoconazole and terbinafine⁽²⁾. All the patients here were treated with topical and oral azole antifungals for 2 weeks with complete cure showing excellent response to azoles. We would like to emphasize that clinical appearance and dermoscopy alone may predict *M.canis* infections based on their typical characteristics.

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