

DIAGNOSIS AND MANAGEMENT OF DERMATOPHYTOSIS BY WOODS LAMP TECHNIQUE IN KITTENS

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Two cats were presented to the Veterinary College and Research Institute Namakkal Hospital with history of skin lesions persisting for a period of twenty days. Scaly lesions were noticed over the nasal bridge, face, pinnae, dorsum of the body, paws and tail. Faecal samples, multiple skin scrapings, tape impression smears and hair from the lesions were collected for examination. Woods lamp examination revealed bright apple green appearance of hair shafts. *Microsporum canis* was isolated from the hair samples inoculated on Sabouraud Dextrose Agar. Kittens were successfully treated with oral amoxicillin and clavulanic acid along with topical application of clotrimazole for a period of ten days and both the kittens had uneventful recovery.

Keywords: Cat, Clotrimazole, *Microsporum canis*, Woods lamp.

Dermatophytosis is an infection of keratinised tissue (skin, hair and claws) caused by *Epidermophyton*, *Microsporum* or *Trichophyton sp.* of fungi. Cats are considered as the asymptomatic carriers and it is mostly caused by *Microsporum canis* (Scott *et al.*, 2013). High incidence of dermatophytosis was reported in kittens, puppies, immune compromised animals and long haired cats. Risk factors include poor nutrition, high density of animals, poor management and lack of an adequate quarantine period for infected pets (Frymus *et al.*, 2013). In dermatophytosis, penetration of the fungal hyphae into the hair shaft leads to development of the weak hair and formation of fungal arthrospore over the shafts which are source for further spread of infection. The present paper describes dermatitis due to *Microsporum canis* in kittens.

Two Persian cats below two months age were presented to the Veterinary College and Research Institute Namakkal Hospital with

history of skin lesions persisting for a period of twenty days. Both the cats exhibited multifocal, irregular alopecic lesions, variable scales and stubble hair. Skin lesions were noticed over the nasal bridge, face, pinnae, over the dorsum, tail and paws (Fig.1A; Fig.1B; Fig.2 A). Woods lamp examination of coat and hair revealed bright apple green fluorescence (Fig. 2B). Faecal samples, tape impression smears, deep and superficial skin scrapings, hair follicles were collected for examination. Faecal samples did not reveal any parasitic ova. Skin scrapings collected in 10% potassium hydroxide solution were revealed fungal spores. Hair samples plucked samples were inoculated into the Sabouraud Dextrose Agar (SDA) and after seven days of incubation, growth was noticed with downy to cottony surface with reddish to yellowish reverse pigment (Fig.3A). Microscopic morphology of the samples revealed presence of *Microsporum canis* with round and elongated macroconidium (Fig.3B).



Fig.1A and 1B. Dermatophyte induced multifocal alopecia and dermatitis



Fig.2A. Distribution of lesions over the face and ear
Fig.2B. Apple green glow fluorescence of hair under woods lamp examination

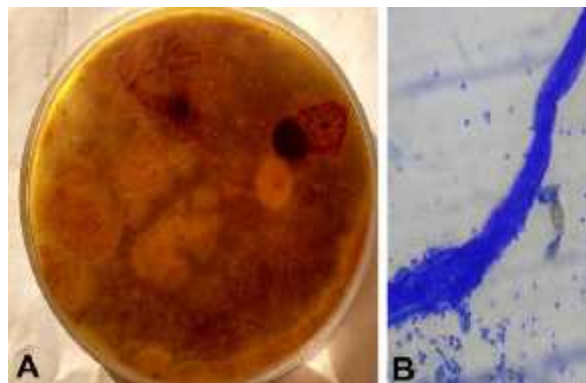


Fig.3A. Growth of *Microsporium canis* on SDA
Fig.3B. *Microsporium canis* macroconidium (10x)

Cats were treated with oral amoxicillin - clavulanic acid @ 15 mg/kg body weight BID orally and topical application of clotrimazole twice daily for ten days. Clinical improvement was noticed by the 10th day of therapy and topical administration was continued for another twenty days.

Present condition was differentiated from other possible similar dermatitis includes demodicosis, scabies, flea allergic dermatitis. Woods lamp technique and cultural examination were used to confirm diagnosis of dermatophytosis in the present case it is in accordance to Moriello and deBoer (2012). Most of the pets with mild dermatophytosis, will resolve spontaneously within 3 months without any treatment. But, topical therapies are essential to prevent the spread of infection. Clinical signs observed in the present clinical study were similar to the reports of Hnilica (2011). Diagnosis of dermatophytosis in kittens by Woods lamp technique and confirmation by growth of the organism is placed on record.

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