A CASE WITH TINEA CORPORIS ET FACIEI DUE TO MICROSPORUM CANIS FROM A SYMPTOMATIC CAT

SEMPATOMATİK BİR KEDİDEN KAYNAKLANNAN MİCROSPORUM CANİS'E BAĞLI TİNEA CORPORİS ET FACİEİ OLGUSU

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SUMMARY

We report the case of an 8-year-old boy with multiple annular slightly endurated erythema with adherent scales surrounding its margin was seen on the arms, face and trunk. We find out that this lesions had appeared after a cat come into the house. On direct examination of the scales and also from the cat fungal elements were detected, and Microsporum canis (M. canis) was isolated. Symptoms disappeared after the patient was treated topically with terbinafine cream for three weeks. Human infection with M. canis from a symptomatic cat was demonstrated in a family in this case.

ÖZET


INTRODUCTION

Tinea corporis is a classical dermatophyte infection, caused by zoophilic or geophilic, occasionally anthropophilic fungi. The typical lesion is a sharply bordered, peripherally spreading, slightly indurated patch or plaque with a more erythematous and scaly border (1). Tinea corporis is seen most often in children, although it occurs also in adults. The primary lesions are located usually on the face, shoulders, arms or other exposed parts of the body, and a typical case history may reveal exposure to an infected pet, cattle or horse. Secondary lesions may represent either exposure to these animals or accidental autoinoculation (2).

CASE

We report a 8-year-old boy, who presented with multiple scaly plaques on his arms, face and trunk, existing for 3 days. His elder sister also had same lesions on her face and arms for 2 days. Both didn’t reported any topical or oral medication before the lesions appeared.
Figure 2. Typical lesions on the arm.

Direct microscopic examination (with 20% KOH) of scales obtained by scraping of the plaques revealed numerous septate and ramified hyphae.

A cultural examination on Sabouraud dextrose agar with the addition of chloramphenicol and cycloheximide, at 26 °C, for twenty days, yielded radiating fungal colonies that were whitish in colour on the top side and dull yellow on the reverse side, with a cotton-like surface (Figure 3).

Figure 3. M. canis on Sabouraud dextrose agar.

Identification was based on both the macroscopic features of the colonies and examination of a portion of the culture teased out in lactophenol cotton blue, which revealed fusiform, rough-walled macroconidia, indicative of Microsporum canis.

Both mycological and clinical cure were achieved after topical treatment with terbinafine twice daily for 3 weeks. Since the patients didn’t come for control, we made a telephone call and learned that the lesions disappeared in 2 weeks, but had appeared in the mother and then it spread to the son again. The mother and son were clear in a week with the same medication and there were no recurrence in a 2 months follow-up period.

DISCUSSION

Tinea corporis is a superficial cutaneous fungal infection clinically characterized by circular lesions that usually have clear margins with a raised edge (3). It usually involves the trunk, shoulders, or limbs, and occasionally the face (excluding the bearded area) (4). Single lesions may occur, or there may be multiple plaques, which may remain discrete or become confluent (3).

This disease may be caused by either zoophilic or anthropophilic fungi, and less frequently by geophilic fungi (5). Microsporum canis is zoophilic and most human infections are acquired from animals. Cats may have inconspicuous lesions limited to small areas around the eyes or ears. Since these lesions, which are the important sources of human infections, may be only recognized after careful examination, and they should be investigated in family epidemics caused by these species (6). In Aegean region, %17.4 of tinea corporis lesions are caused by M. canis (7). Lesions may be disappeared at the examination time, so more attention should be paid to prevent infections from such animals that have no apparent lesion (8). Tinea corporis in our cases was transmitted by a cat which had a hypopigmented patch on his ear and made an outbreak in the house that he lived.

Tinea capitis as well as tinea corporis may occur under conditions of immunosuppression (9). There are literatures about tinea corporis outbreaks in crowded areas, such as hospitals and child-care centers (10,11).

According to a study, among children the most common fungal infection was found to be tinea capitis (mainly caused by M. canis), and the second one was tinea corporis which is mainly caused by Tricophyton rubrum (12).

The differential diagnoses of M. canis infections of adults are; on the scalp seborrhea capitis, folliculitis, discoid lupus erythematosus, on the face lymphocytic infiltration, granuloma faciale, discoid lupus erythematosus, rosacea, contact dermatitis, polymorphous light eruption, on the body erythema multiforme, psoriasiform eruption, pityriasis rosea and seborrheic dermatitis (13, 14).

Because there are atypical M. canis infections which are negative on direct examination, mycological screening of
certain dermatological disorders should be performed by culturing (15).

Among the adults who have tinea faciei infection, it was found that %85 of the patients the nails were also involved by the same agent found in the lesions of the face. On the basis of this observation it is recommended that all adult patients with tinea faciei should undergo a comprehensive mycological investigation to find the primary focus, which may be an infected nail (14).

Tinea corporis, when caused by geophilic or zoophilic dermatophyte, usually resolves spontaneously within a few months. A variety of topical agents is usually applied to speed up healing of local and uncomplicated lesions. Systemic therapy may be necessary because of widespread lesions caused by multiple inoculations. One-third of patients do not respond to treatment with griseofulvin which is the primary therapeutic agent in children. The therapeutic use of ketoconazole is, however, limited because of its rare side effects, such as liver toxicity, depressed adrenal activity and testosterone secretion, and drug-drug interactions. Itraconazole and terbinafine, taken orally, were reported to be generally safe and effective therapies against most of the common dermatophytes (6). Our cases had widespread lesions but owing to their age we started the therapy with topical agents. The lesions improved with topical therapy so we didn't switch the therapy to systemic form.

In the literature the frequency of M. canis infections shows that the pet animals are responsible for the spreading of this disease among people. The pet animals must be checked out periodically from this point of view. By this way the tinea corporis incidence can be decreased (16, 17).

REFERENCES