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Dermatology

Partially Alopecic Plaque of the Forearm Revealing a Familial Ringworm

Dr. Tahri Joutei Hassani Kenza[1*], Zakia Douhi[1], Hanane Baybay[1], Sara Elloudi[1], Meryem Soughi[1], Fatima Zahra Mernissi[1]

[1]Department of Dermatology, University Hospital Hassan II, Fes, Morocco

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***Corresponding author:** Dr. Tahri Joutei Hassani Kenza
Department of Dermatology, University Hospital Hassan II, Fes, Morocco

Abstract **Case Report**

Dermatophytes are capable of infecting the skin and its appendages such as nails and hairs producing a variety of clinical conditions. Hair invasion by dermatophytes is a key feature of tinea capitis and tinea barbae but not of tinea of glabrous skin. Follicular involvement of glabrous skin is a rare entity resisting to topical treatment and should be considered for systemic antifungal treatments. We report a new observation of Tinea Folliculorom of the forearm revealing a familial ringworm.

Keywords: Fungal, tinea folliculorum, hair, dermatophytes, dermoscope.

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INTRODUCTION

Hair involvement is the main feature of ringworm of the scalp and beard, where fungal spores can be seen in or on the hair shaft [1]. Dermatophytes of the hairless skin are common and can be easily treated with topical antifungals. In rare cases, dermatophytes invade the hair follicles resulting in a poor response to topical antifungals, thus requiring systemic treatment.

OBSERVATION

A 45 year old patient with erythematous lesions on the trunk that had been evolving for 2 weeks came to our department. The dermatological examination found 2 erythematous, finely scaly patches with a circinate border and central healing on the trunk and left forearm in favor of dermatophytes of the glabrous skin. There was also a partially alopecic plaque on the anterior side of the right forearm and dermoscopic examination found black spots, short broken hairs and corkscrew hairs. A mycological examination was requested and found to be in favor of a Microsporon canis infection, which confirmed the diagnosis of follicular ringworm of the hairless skin. We asked the patient to bring his family back for a dermatological examination which showed the presence of a partially alopecic plaque of the scalp of his 10 year old child with a focally positive traction sign and dermoscopic examination showed the presence of dystrophic, zigzagging hairs and whitish scales. Both patients were treated with oral griseofulvin and a topical antimycotic with good improvement.

Figure 1: Partially alopecic plaque of the forearm

Figure 2: Dermoscopy of the forearm showing black spots, short broken hairs and corkscrew hairs

Figure 3: Dermoscopy of the child's scalp showing zigzag hairs and gray scales

DISCUSSION

Follicular ringworm of glabrous skin or 'tinea folliculorum' was first described by Broughton in two cases of dermatophyta of the back [2]. A Chinese study in 2018 investigated the clinico-mycologic aspects of follicular involvement in patients with glabrous skin dermatophytosis, most of whom had been treated with antifungals, antibiotics, or steroids without improvement. Dermoscopic examination showed infected hairs in the form of broken hairs, corkscrew hairs, curly hairs, or black dots on the surface of lesions [3]. The pathogens were either anthropophilic (seven cases of Trichophyton rubrum) or zoophilic (six cases of Microsporum canis, three cases of T. mentagrophytes) [1]. Patients responded well to oral griseofulvin or terbinafine, as well as to topical antifungals, as in the case of our patient. No resistance to antifungal agents developed during treatment.

CONCLUSION

Follicular involvement of hairless skin is not as rare as thought and dermoscopy is essential to detect it allowing effective treatment with systemic antifungals.

CONSENT

The examination of the patient was conducted according to the Declaration of Helsinki principles.

CONFLICTS OF INTEREST

The authors do not declare any conflict of interest.

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