

Letter to editor

Cutaneous mycosis in a rural area of Ahvaz, Iran

Ali Zarei Mahmoudabadi¹, Reza Yaghoobi², Azadeh Owraq¹

¹*Department of Medical Mycology, School of Medicine and Infectious and Tropical Diseases Research Center, Ahvaz Jundishapur University of Medical Sciences, Ahvaz, Iran*

²*Department of Dermatology, School of Medicine, Jundishapur University of Medical Sciences, Ahvaz, Iran*

How to cite this article:

Zarei Mahmoudabadi A, Yaghoobi R, Owraq A. Cutaneous mycosis in a rural area of Ahvaz, Iran. Jundishapur J Microbiol. 2010; 3(3): 133-5.

Received: January 2010

Accepted: March 2010

Cutaneous mycoses are the most important fungal diseases and more prevalent in the world. Dermatophytosis and pityriasis versicolor are two main diseases that their incidence is related to geographic region, climate and animal husbandry techniques. Dermatophytosis, especially tinea capitis remains a significant endemic problem mainly in school children in the world [1]. Zoophilic species of dermatophytes, *Microsporum canis*, *Trichophyton verrucosum* and *T. mentagrophytes* are associated with dermatophytosis in wild and domestic animals [1,2]. These species are the most common dermatophytes as causative agents of tinea in rural areas in Iran [3-5]. Several reports from Ahvaz show that dermatophytosis is still a main dermatological problem in this province [1,2,6,7]. Pityriasis versicolor is a chronic fungal disease that is more prevalent in warm and humid condition.

In the present study, 1681 primary school students in the rural areas of South of Ahvaz were considered and 153 suspected patients sampled. The samples contained; skin scrapings (9), nail clippings

(1) and hair and scalp samples (104). Scotch tapes were also taken in the cases of pityriasis versicolor (39). All samples were collected in sampling pockets and transferred to medical mycology laboratory (Department of Medical Mycology, Ahvaz Jundishapur University of Medical Sciences). Direct microscopy slides were prepared by KOH for skin scrapings and nail clippings. In addition, hair samples were treated by lactophenol. Scalps scale and scotch tapes were stained by methylene blue. Samples were cultured on Mycobiotic agar (Merck, Germany) slant tubes and incubated at 25-30°C for four weeks. In addition, a slant tube containing Sabouraud's dextrose agar (Merck, Germany) was used for the nail samples.

In the present study, 1681 primary school students participated, ranged in age from 7-12 years. Subjects were 960 (57.1%) male and 721 (42.9%) female. Out of 153 sampled students only four cases of pityriasis versicolor were identified by direct examinations. This study revealed that the prevalence of dermatophytosis in the studied area was zero. Tinea capitis is a

common dermatophytosis in childhood [7]. Several reports showed that tinea capitis continues to be an important public health issue in Iran [3,8-12]. Previously we reported an outbreak of tinea capitis due to *T. mentagrophytes* in a village in Ahvaz [2]. The clinical types of tinea and their etiological agents vary from time to time and place to place. Chadegani *et al.* [4] and Zarei Mahmoudabadi [1,7] reported *T. verrucosum* as the most common causative tinea capitis in Isfahan and Ahvaz respectively, whereas Omidynia *et al.* [5] reported *T. schoenleinii* as common etiologic agent tinea capitis in Hamadan (west of Iran). The prevalence of dermatophytosis among primary school children in the city of Varamin (south of Tehran) was 0.05% [8]. Most of the patients in the city of Varamin were from an urban area of Tehran.

It seems probable that the presence of health centers in rural areas of Ahvaz, routine visit of the students by nurses and settlement near to downtown (Ahvaz) were the reasons for decreasing dermatophytosis. In the present study, only four cases of pityriasis versicolor were detected in the students. This is a superficial infection of the stratum corneum caused by *Malassezia* species and is common in late teens and young adults of both sexes [13]. Several authors have reported pityriasis versicolor in Iran [13-16]. Ahvaz is located at South West of Iran which has temperate and humid climate. Temperature and humidity are two important predisposing factors for pityriasis versicolor. In the present study the prevalence of dermatophytosis was less than that we had expected and it indicates that the disease was managed excellently by medical health services in this province.

Acknowledgment

This study was supported by a grant from Ahvaz Jundishapur University of Medical

Sciences (No, 85U044), Ahvaz, Iran. In addition, the results presented in this paper are a part of thesis for MD degree (Azadeh Owraq). We are also grateful to the staff of Department of Medical Mycology, Ahvaz Jundishapur University of Medical Sciences for their help.

References

- 1) Zarei Mahmoudabadi A. Study of dermatophytosis in south west of Iran (Ahvaz). *Mycopathologia*. 2005; 160: 21-4.
- 2) Zarei Mahmoudabadi A, Yaghoobi R, Sadeghi B. A large outbreak of tinea capitis in a primary school. *J Infect*. 2007; 54: e247-8.
- 3) Rastegar Lari A, Akhlaghi L, Falahati M, Alaghebandan R. Characteristics of dermatophytoses among children in an area south of Tehran, Iran. *Mycoses*. 2005; 48: 32-7.
- 4) Chadegani M, Momeni A, Shadzi S, Javaheri MA. A study of dermatophytoses in Esfahan. *Mycopathologia*. 1987; 98: 101-4.
- 5) Omidynia E, Farshchian M, Sadjjadi M, Zamanian A, Rashidpouraei R. A study of dermatophytoses in Hamadan, the governmentship of west Iran. *Mycopathologia*. 1996; 133: 9-13.
- 6) Rafiei A, Emmami M, Moghadami M, Mahmedi M, Shidfar M. Cutaneous mycosis in Khuzestan province. *Sci Med J*. 1992; 14: 22-34.
- 7) Zarei Mahmoudabadi A. A survey of 382 suspected patients with tinea capitis, Ahvaz. *Sci Med J*. 1997; 22: 45-52.
- 8) Ansarin H, Ghafarpour GH, Falahati M. Prevalence and etiological agents of tinea among school children in city of Varamin. *J Iran Uni Med Sci*. 2001; 24: 128-35.
- 9) Aghamirian MR, Ghiasian SA. Dermatophytoses in outpatients attending the dermatology centre of Avicenna hospital in Qazvin, Iran. *Mycoses*. 2008; 51(2):155-60.
- 10) Jahromi ShB, Khaksar AA. Aetiological agents of tinea capitis in Tehran (Iran). *Mycoses*. 2006; 49: 65-7.

- 11) Falahati M, Akhlaghi L, Lari AR, Alaghebandan R. Epidemiology of dermatophytoses in an area south of Tehran, Iran. *Mycopathologia*. 2003; 156: 279-87.
- 12) Chadeganipour M, Shadzi S, Dehghan P, Movahed M. Prevalence and aetiology of dermatophytoses in Isfahan, Iran. *Mycoses*. 1997; 40: 321-4.
- 13) Tarazooie B, Kordbacheh P, Zaini F, *et al*. Study of the distribution of *Malassezia* species in patients with pityriasis versicolor and healthy individuals in Tehran, Iran. *BMC Dermatol*. 2004; 1: 4-5.
- 14) Badiei P, Kord Bacheh P, Zeini F, Shidfar MR, Eshraghian MR. Survey and diagnosis of superficial and cutaneous fungal infections in referral patients in health centre in Shiraz. *Iranian J Infect Dis Trop Med*. 2003; 21: 18-21.
- 15) Shakerian MA, Tirgar Tabari S, Haji Ahmadi M, Khoshbakht H, Hosseini SD. Frequency of tinea versicolor in male high school students, Babol, 2001-4. *J Babol Uni Med Sci*. 2006; 30: 77-9.
- 16) Shokoohi T, Emami M, Sojoodian Z. Clinical efficacy of 1% terbinafine cream (Lamizil) in comparison to 2% miconazole cream in patients with pityriasis versicolor. *J Mazandaran Uni Med Sci*. 2004; 43: 25-32.

Address for correspondence:

Ali Zarei Mahmoudabadi, Department of Medical Mycology, School of Medicine, and Infectious and Tropical Diseases Research Center, Ahvaz Jundishapur University of Medical Sciences, Ahvaz, Iran

Tel: +98611 3330074; Fax: +98611 3332036

Email: zarei40@hotmail.com