

## TINEA INCOGNITO DUE TO *EPIDERMOPHYTON FLOCCOSUM*

Ali Zarei Mahmoudabadi<sup>1</sup>, Zahra Mossavi<sup>2</sup>

### Summary

Tinea incognito is a cutaneous infection with atypical clinical characteristics. Disease is usually caused by administration of steroids. We describe a 25-year-old man who presented with local lesion in groin being treated with corticosteroid. *Epidermophyton floccosum*, an anthropophilic species, was identified by mycological examinations, direct and culture.

**KEY WORDS:** Tinea incognito, Tinea cruris, *E. floccosum*.

Pak J Med Sci July - September 2008 Vol. 24 No. 4 618-620

### How to cite this article:

Mahmoudabadi AZ, Mossavi Z. Tinea incognito due to *epidermophyton floccosum*. Pak J Med Sci 2008;24(4):618-20.

### INTRODUCTION

Tinea incognito is an atypical dermatophytosis that is caused by prolonged use of topical or oral corticosteroids.<sup>1</sup> Disease is usually localized to groin area. Tinea cruris accounted for 7.6% of all dermatophytosis.<sup>2</sup> Several reports show that disease more prevalent in Iran.<sup>3-5</sup> The highest frequency of tinea cruris is seen in 20-30 years olds suggesting that the peak of the infection is associated with age. We report a patient who had tinea incognito on his groin area caused by *E. floccosum* after topical corticosteroid application. *E. floccosum* is an

anthropophilic species that is distributed worldwide. It is responsible for most cases of tinea cruris in Iran.<sup>3-5</sup>

### CASE REPORT

A 25-year-old man presented with 4-6 weeks history of scaling and pruritic lesion involving the groin. The patient had been misdiagnosed as psoriasis and treated with topical corticosteroid for several weeks. With this treatment the lesion initially improved, but later they persisted. Physical examination revealed erythematous scaling lesion with purple stretch marks (Fig-1).

Skin scrapings were collected using sterile scalpel. Direct examination from skin scrapings revealed septate branching mycelium with many arthroconidia (Fig-2). Collected skin scrapings were cultured on Mycobiotic agar (Difco, East Molesey, UK) slant tubes and incubated at 25-30°C for 3 weeks, aerobically. The colonies of *E. floccosum* were characterised by slow growing, gently folding, fuzzy to suede like in texture and khaki in colour. *E. floccosum* was confirmed in cultures based on the macroscopic and microscopic features. The 2-4 celled pyriform macroconidia were the most

- 
1. Ali Zarei Mahmoudabadi, Department of Medical Mycopathology,
  2. Zahra Mossavi, Department of Dermatology,
- 1,2: School of Medicine, Jundishapour University of Medical Sciences, Ahwaz - Iran.

#### Correspondence

Dr. Ali Zarei Mahmoudabadi,  
Department of Medical Mycopathology,  
School of Medicine,  
Jundishapour University of Medical Sciences,  
Ahwaz, Iran  
Email: zareei40@hotmail.com

\* Received for Publication: December 11, 2007

\* Accepted: June 21, 2008



Fig-1: Tinea incognito due to *E. floccosum*

important features of *E. floccosum* (Fig-3). Macroconidia were abundant and arranged like bunches of bananas. Microconidia were absent. In the present study patient was successfully treated with topical clotrimazole (1% cream) three times daily for 3-4 weeks.

### DISCUSSION

The typical clinical features of tinea cruris are presenting erythematous scaling lesions with a raised margin. Disease is usually bilateral. The application of topical steroids may modify the clinical picture. The term tinea incognito has been used to describe dermatophyte infections



Fig-3: Microscopy of *E. floccosum*, pyriform macroconidia in group

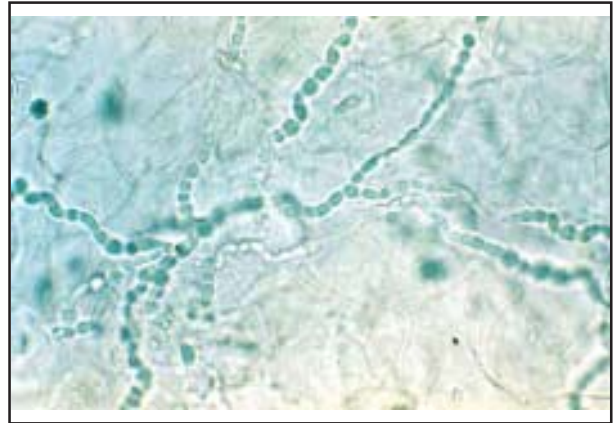


Fig-2: KOH preparation of skin scraping shows septate branching mycelium with arthroconidia

modified by corticosteroid treatment. Tinea incognito typically affects adults and it is seen on the groin,<sup>6</sup> the face<sup>1,7-9</sup> and on the dorsal of the hand,<sup>10</sup> leg,<sup>7,11</sup> arm<sup>7,11</sup> and buttock and thigh.<sup>11</sup>

Wacker et al.<sup>12</sup> has also reported one case of tinea incognito at the umbilical region caused by *M. canis*. Tinea cruris is mainly seen in men and it is seen more frequently in hot and humid environment. *E. floccosum* was reported as the most prevalent dermatophyte species isolated from tinea cruris in Iran.<sup>3,5</sup> In others reports *T. rubrum* was the predominant etiologic agent followed by *E. floccosum*.<sup>2</sup> Gorani et al.<sup>9</sup> and Sanchez-Castellanos et al.<sup>1</sup> have reported cases of dermatophytosis of the face due to *Microsporum canis* and *T. mentagrophytes* that was modified by a long-term application of topical corticosteroids, respectively.

Stretch marks are adverse effect of topical steroids in groins and axillae. In our patient classical features of tinea cruris was modified by application of topical corticosteroid. Sanchez-Castellanos, et al.<sup>1</sup> believe that topical steroids therapy can suppress the local immune response and allow the fungus to grow easily. As a result, the fungal infection may take on a bizarre appearance.

### CONCLUSION

The tinea incognito presented in this report was initially misdiagnosed as psoriasis and treated with corticosteroids.

## ACKNOWLEDGMENT

We are grateful the Department of Mycoparasitology, Jundishapour University of Medical Sciences for their help and assistance.

## REFERENCES

1. Sanchez-Castellanos ME, Mayorga-Rodriguez JA, Sandoval-Tress C, Hernandez-Torres M. Tinea incognita due to *Trichophyton mentagrophytes*. *Mycoses* 2007;50:85-7.
2. Maraki S, Nioti E, Mantadakis E, Tselentis Y. A 7-year survey of dermatophytoses in Crete, Greece. *Mycoses* 2007;50:481-4.
3. Hedayati MA. Common dermatophytes in Khuzestan province. *Sci Med J* 1989;10:59-65.
4. Falahati M, Akhlaghi L, Lari AR, Alaghehbandan R. Epidemiology of dermatophytoses in an area south of Tehran, Iran. *Mycopathologia* 2003;156:279-87.
5. Sadri MF, Farnaghi F, Danesh-Pazhooh M, Shokoohi A. The frequency of tinea pedis in patients with tinea cruris in Tehran, Iran. *Mycoses* 2000;43:41-4.
6. Oklota CA, Brodell RT. Uncovering tinea incognita. Topical corticosteroids can mask typical features of ringworm. *Postgrad Med* 2004;116:65-6.
7. Romano C, Asta F, Massai L. Tinea incognita due to *Microsporum gypseum* in three children. *Pediatr Dermatol* 2000;17:41-4.
8. Grau Salvat C, Pont Sanjuan V, Sánchez-Carazo JL, Vilata Corell JJ, Aliaga Boniche A. Disseminated inflammatory tinea: An unusual presentation. *Rev Iberoam Micol* 1998;15:100-2.
9. Gorani A, Schiera A, Oriani A. Case Report. Rosacea-like Tinea incognita. *Mycoses* 2002;45:135-7.
10. Jacobs JA, Kolbach DN, Vermeulen AH, Smeets MH, Neuman HA. Tinea incognita due to *Trichophyton rubrum* after local steroid therapy. *Clin Infect Dis* 2001;33:E142-4.
11. Romano C, Maritati E, Gianni C. Tinea incognita in Italy: A 15-year survey. *Mycoses* 2006;49:383-7.
12. Wacker J, Durani BK, Hartschuh W. Bizarre annular lesion emerging as tinea incognita. *Mycoses* 2004;47:447-9.

## Final Check List for manuscripts

While submitting manuscripts to Pakistan Journal of Medical Sciences for publication please ensure the following:

1. The manuscript must be accompanied by letter of undertaking signed by all authors confirming exclusive submission to Pak J Med Sci willingness to pay publication charges if approved for publication after peer review, and it should be unpublished material.
2. The manuscript should be sent by e mail in MS word format.
3. Ensure only those are listed as authors who qualify the authorship criteria. For details visit our website and read instructions to authors.
4. Title page must include, title, name of authors, their affiliations. Correspondence author with details of e mail, telephone, cell phone and fax number and complete postal address.
5. Structured abstract should be of 150 words in four headings i.e. objective, methodology, results, conclusions and relevant key words.
6. All references should be marked in the manuscript and they should appear in order i.e. 1,2,3,4,5,6 and so on as they are referred to in the manuscript.. They should be typed in superscript.

How to write references?. Example:

*Name of authors, title of manuscript, name of the journal, year of publication, Vol No. and page Numbers.*

*In case of reference from, book year will come at the end with publisher's name.*

7. Original manuscript should have all the essential components i.e. Introduction, Methodology, Results, Discussion, Conclusions. If necessary, add recommendations and acknowledgment.
8. Figures should be in Jpeg in high resolution.
9. Maximum length Original article 2500 words, Case Reports, Brief Communications, CME up to 1500-1800 words. Review article 3500 words.
10. References Original article up to 15-25 latest relevant references are enough. Case Report, CME and brief communications up to 10 relevant latest references. Case Report five to ten relevant latest references with pictures.
11. Maximum number of tables, illustrations allowed per article are four.
12. Declare source of funding if any, conflict of interest statement and approval from ethics committee if obtained.