

Urticaria associated with dermatophytosis

J. Méndez^a, A. Sánchez^a, and J.C. Martínez^b

^aAllergy Section. Hospital Río Carrión. Palencia, Spain, ^bAllergy Section. Hospital Virgen de la Concha. Zamora, Spain.

SUMMARY

Background: Although urticaria has been reported in association with tinea or other fungal infections, usually this relationship is considered coincidental.

Clinical case: We report the case of a patient that developed two episodes of generalised urticaria associated with dermatophytosis. An allergologic studied was performed. Skin prick tests with a battery of common inhalant allergens and foods were negative. A culture of scrapings from lesions was performed and *Epidermophyton floccosum* colonies were identified. The patient was treated with oral antihistamines and topical clotrimazole and the skin lesion and urticaria healed in 14 days in the first episode and in 10 days in the second one.

Conclusions: Our results suggest a relationship between dermatophytosis and urticaria. Therefore, the allergologist should be aware of tinea infection as a cause of urticaria.

Key words: Urticaria. Dermatophytosis. *Epidermophyton*. Allergy. Clotrimazole.

INTRODUCTION

Undetected infections have long been considered a cause of urticaria; however the incidence is extremely low. Urticaria has been well documented during viral infections such as infectious hepatitis and infectious mononucleosis and a large number of helminthic parasites are clearly associated with urticaria. Only few bacteria have been implicated as possible causes of urticaria, sporadic cases have been reported in which removal of a dental abscess or gangrenous gallbladder led to prompt resolution of urticaria alt-

hough larger surveys have generally found no association between infections in patients with urticaria and the course of hives (1). Similarly, the association of tinea or monilial infections and urticaria is usually considered coincidental (2).

We report two episodes of urticaria in the same patient and in both episodes, associated with a fungal infection. In the literature, there are no studies reporting a similar case.

CLINICAL CASE

A 40-year-old woman developed folliculitis in her legs after depilation. She was treated with topical corticosteroids and 10 days later she started a generalised urticaria and an annular scaling patch in her left leg was observed. A diagnosis of probable *Pseudomonas* folliculitis and *tinea incognita* was made. A culture of scrapings from skin lesion was performed and *Epidermophyton floccosum* colonies were identified. The patient was treated with oral antihistamines and topical clotrimazole during 21 days and the skin lesion and urticaria healed in 14 days. Previously, she never had had urticaria. Then, she was asymptomatic but six months later she developed an annular scaling patch in her right leg, without previous depilation. Simultaneously, generalised cutaneous erythema and urticaria appeared. In this case, the patient had usual contact with a cat. An allergologic studied was then performed. Skin prick tests (SPT) with a battery of common inhalant allergens and foods were negative. A culture of scrapings from lesion was performed and *Epidermophyton floccosum* colonies were identified. She was treated with topical clotrimazole during 21 days, the urticaria healed in 10 days and so did the skin lesion in 21 days.

DISCUSSION

Fungal infections as a cause of urticaria are considered mainly to be due to *Candida*. The role of *Candida* in urticaria is controversial in the literature. Several reports related acute (3, 4) or chronic urticaria (5) and *Candida* infection, but in most cases it is not clear whether the two processes are related, occur simultaneously by chance or are influenced by medication taken by the patient. Well conducted studies to resolve these questions are still not available.

A few reports related urticaria and tinea infection. Three reports related tinea pedis infection due to *Tricophyton rubrum* and chronic urticaria (6, 7, 8) but not acute urticaria. Jang et al (9). studied all cases of tinea pedis in Korean children diagnosed during three years, *Tricophyton rubrum* was the most commonly isolated pathogen and in several cases this dermatophytosis infection was associated with chronic urticaria (5%).

Our results suggest a relationship between dermatophytosis and acute urticaria and *Epidermophyton floccosum* is the pathogen implicated, as we say previously, in the literature there are a few cases that related urticaria and dermatophytosis, most of them are related with chronic urticaria and usually *Tricophyton rubrum* is the pathogen implicated, in our experience there are no studies reporting a similar case.

However only it would be possible to demonstrate urticaria associated with dermatophytosis if we carry out a challenge test but obviously this is not possible for ethical reasons.

Finally, we think that the allergologist should be aware of tinea infection as a cause of urticaria.

RESUMEN

Antecedentes: Aunque la urticaria se ha relacionado en asociación con tiña u otras infecciones fúngicas, se suele considerar esta relación como una coincidencia.

Caso clínico: Presentamos el caso de una paciente que desarrolló 2 episodios de urticaria generalizada asociada con dermatofitosis. Se realizó un estudio alergológico mediante pruebas cutáneas en *prick* con una batería de alérgenos inhalantes y alimentos con resultado negativo. En el cultivo de las escamas de las lesiones cutáneas se apreció el crecimiento de colonias de un dermatofito, identificado como *Epider-*

mophyton floccosum. La paciente recibió tratamiento con antihistamínicos orales y clotrimazol vía tópica curando las lesiones cutáneas y la urticaria en 14 días en el primer episodio y en 10 días en el segundo.

Conclusiones: Los resultados sugieren una relación entre dermatofitosis y urticaria. Por ello, el alergólogo debe considerar las infecciones fúngicas como posible causa de urticaria.

Palabras clave: Urticaria. Dermofitosis. Alergia. Clotrimazol.

Correspondence:

Dr. J.D. Méndez Alcalde
Sección de Alergia
Hospital Río Carrión
Avda. de los Donantes de Sangre, s/n
34005 Palencia. Spain
Tel.: 979 167 000 ext.: 159
Fax: 34 79 167 014

REFERENCES

1. Rorsman H. Studies on basophil leukocytes with special reference to urticaria and anaphylaxis. *Acta Dermatol Venereol* 1962;48:42.
2. Kaplan AP. Urticaria and angioedema. En: Middleton E, Reed CE, Ellis EF, Adkinson NF, Yunginger JW, Busse WW, editors. *Allergy principles and practice*. Missouri: Mosby-Year Book, 1998; p.1105-7.
3. Gallenkemper G, Reinel D. Urticaria in the presence of intestinal yeasts-exacerbated by chance of persorption? *Mycoses* 1992;35:181-4.
4. Eidelman D, Neuman I, Kuttin ES, Pinto M, Beemer AM. Dental sepsis due to *Candida albicans* causing urticaria: Case report. *Ann Allergy* 1978;41:179-81.
5. Serrano H. Hypersensitivity to *Candida albicans* and other fungi in patients with chronic urticaria. *Allergol et Immunopathol* 1975;3:289-98.
6. Shelley WB, Florence R. Chronic urticaria due to mold hypersensitivity. A study in cross sensitization and autoerythrocyte sensitization. *Arch Dermatol* 1961;83:549-58.
7. Weary PA, Guerrant JL. Chronic urticaria in association with dermatophytosis. *Arch Dermatol* 1967;95:400-1.
8. Espiritu BR, Szpindor-Watson A, Zeitz HJ, Thomas LL. IgE-mediated sensitivity to *Tricophyton rubrum* in a patient with chronic dermatophytosis and Cushing's syndrome. *J Allergy Clin Immunol* 1988;81:847-51.
9. Jang KA, Chi DH, Choi JH, Sung KJ, Moon KC, Koh JK. Tinea pedis in Korean children. *Int J Dermatol* 2000;39:25-7.