

azithromycin (to 500 mg p.o.) were carried out with good tolerance.

The basic structure of macrolides is characterized by a lactonic cycle with 2 osidic chains. They are classified by the number of carbon atoms in the cycle. For example: 14-membered macrolides such as erythromycin, roxithromycin, and clarithromycin; 15-membered macrolides such as azithromycin; and 16-membered macrolides such as midecamycin (7). Whether these differences in chemical structure form the basis of the different cross-reactivities among macrolides is largely unknown. However, we have documented the use of topical provocation tests and a controlled oral challenge in the first reported case of FDE caused by a macrolide showing cross-reactivity with other antibiotics from the same group. Thus, it seems reasonable to perform patch testing with macrolides that have different numbers of carbon atoms in patients with FDE due to this specific antibiotic group.

*Allergy Unit
'Ciudad de Jaén' Hospital
Avenida Ejército Español 10
23007 Jaén
Spain
Fax: + 34 95 3275 803
E-mail: msd01j@nacom.es

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Immediate pressure urticaria

S. P. Commins*, A. P. Kaplan

Key words: nonallergic urticaria; pressure urticaria; wheal.

● **PRESSURE** urticaria is typically delayed in nature such that pressure applied to the skin leads to hives and/or swelling some 4–8 h later (1). The histology of the lesion is strikingly similar to that seen with chronic idiopathic urticaria (1) or, using the new terminology, chronic nonallergic urticaria (2). Dermatographism, on the other hand, is an immediate wheal and flare reaction occurring within a few minutes of stroking the skin. A delayed form with linear wheals occurring hours after stroking the skin (so-called delayed dermatographism) may represent an alternative manifestation of delayed pressure urticaria (3).

We have encountered an unusual form of physical urticaria in which pressure applied to the skin for 1 min leads to immediate hive formation, yet the subject was not dermatographic. The case is described herein and the literature reviewed.

The patient was a 44-year-old male who presented with nonallergic urticaria of 10 years' duration. He had had hives on a daily basis which could occur on virtually any part of his body, including his scalp, face, trunk, and all four extremities. On occasion, hives had presented on his palms and soles. He was extremely pruritic even when hives were not present, although scratching himself did not cause urticaria.

He presented to us taking Prevacid (30 mg/day), Pepcid (20 mg/day), Zyrtec

(10 mg/day), Singulair (10 mg/day), Atarax (25 mg HS), doxepin (10 mg HS) and occasionally methylprednisolone. A number of years ago he had taken prednisone on a regular basis with significant diminution of the hives but developed ulcer symptoms as a result. He has used corticosteroids for occasional relief and in these instances has found the Medrol dose pack to be very helpful.

It was thought that the patient had systemic mastocytosis for which he was evaluated at the National Institutes of Health. The results of a bone marrow biopsy performed in 1999 were negative. He had a tonsillectomy and adenoidectomy two years previously and was diagnosed one year previously with degenerative disc disease. There was no history of cardiac disease, hypertension, diabetes, liver or kidney disease, thyroid disease, arthritis or colitis. The patient worked as a carpenter, did not smoke and drank about 24 beers per week.

There were no remarkable findings on physical examination, including no evident urticaria or angioedema. Of note, however, was the appearance of hives in the area where the blood pressure cuff had been inflated. Direct pressure applied to his back by pressing with a thumb for 1 min caused immediate urticaria in the shape of a thumbprint to appear in 4 min, and although still evident an hour later it appeared to be fading. Tests for dermatographism were repeatedly negative. Laboratory data included a normal CBC, sedimentation rate, thyroid function tests and absence of antibodies to thyroglobulin microsomal antigens.

The various types of physically induced hives can, at times, be difficult to distinguish from each other. There is, for example, a variant of cholinergic urticaria in which hives occur only upon exercise in a cold environment (4) that is easily confused with patients who have both cold urticaria and cholinergic urticaria.

Dermatographism can be confused with chronic urticaria because, when it is unusually severe, clothing that rubs on the skin can be sufficient to induce hives so that occurrences appear to be 'spontaneous'. Another variant is dermatographism that is inducible only when the skin has been chilled (5).

Pressure urticaria is considered to be synonymous with 'delayed' pressure urticaria because the rash typically occurs 4–6 h after the stimulus is applied. The sole

An unusual case of physical urticaria.

exception in the literature is a patient with the hypereosinophilic syndrome who had immediate pressure urticaria that was indistinguishable from that of the patient described herein (6). The present patient, however, had a normal eosinophil count and his pressure symptoms appeared to accompany nonallergic urticaria. The response to corticosteroid provides further indirect evidence that he had nonallergic urticaria as well, since most immediately occurring physically-induced hives (cold urticaria, cholinergic urticaria, dermatographism, solar urticaria type I) are unresponsive to steroids. We recommended hydroxyzine at 50 mg q.i.d. to control the pressure-induced symptoms.

Addendum: Non-allergic urticaria replaces chronic idiopathic urticaria under the new terminology (2).

*Division of Pulmonary and Critical Care Medicine
Allergy and Clinical Immunology
Medical University of South Carolina
Charleston
South Carolina
USA

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Exanthema with eosinopenia

B. Kränke*, E. Richtig, W. Aberer

Key words: eosinopenia; exanthema; measles; viral infection.

● ACUTELY ill patients suffering from maculopapular exanthema of unknown origin present a diagnostic challenge. Differentials include infectious and drug induced exanthems, but the typical eruption is not found as a rule, and diagnostic possibilities are often frustrating.

A 19-year-old woman was admitted to our clinic in June with fever (39°C), pruritic and generalizing maculopapular rash, and cough with increasing laryngeal dyspnoea. An unspecific malaise with influenza-like symptoms had started five days earlier. Therefore the patient had taken indomethacin and paracetamol in a daily dose of 100 mg and 1000 mg, respectively. Furthermore, the macrolides azithromycin and, two days later, clarithromycin

had been administered by her GP. One day before

hospitalization the first macules had appeared on the face, neck and thorax.

On examination the tachypnoeic, but not cyanosed, patient presented injected conjunctivae and a generalized, confluent dark red macular rash with some itching and partly edematous papules, sparing

the palms and soles. Mirror laryngoscopy showed a mucosal erythema and laryngeal edema, but no Koplik's spots. Our assumption was drug hypersensitivity. Blood samples for laboratory tests were taken, and thereafter 250 mg prednisolone administered for the laryngeal dyspnoea. The laboratory tests revealed a raised erythrocyte sedimentation rate (40/56; normal: 10/20) and C-reactive protein (80 mg/L; normal: 5 mg/L), a white blood cell count of $6.4 \times 10^9/L$ showed relative neutrophilia (94.4%), lymphopenia (4.3%), eosinopenia (0%), and basophilic leukopenia (0%). Counts of red blood cells and platelets were normal. Values for CK (686 U/L, normal: <100 U/L), lactate dehydrogenase (337 U/L, normal: <240 U/L), aspartate aminotransferase (30 U/l, normal: <18 U/L), and pancreatic amylase (90 U/L; normal: <34 U/L) were elevated.

As a result of this clinical picture and the laboratory findings, especially with regard to the lymphopenia and missing eosinophils, the first diagnosis was revised. A presumptive diagnosis of a virus exanthema was made, and the patient was confined to bed and treated symptomatically. Subsequent serological tests for virus infection showed negative results for cytomegalovirus, coxsackievirus, rubella virus, EB virus, and HIV, but a positive EIA for measles IgM. A previous vaccination against measles could be ruled out; the parents had not regarded vaccination as important. Three days later the EIA for measles IgG turned positive, and the

An unusual case of measles.

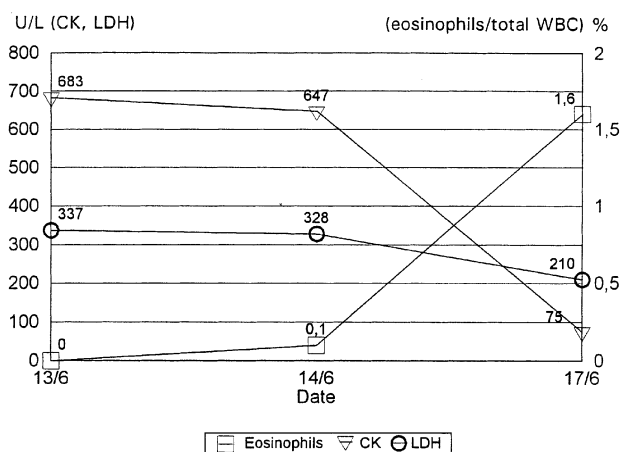


Figure 1. Time course of relevant laboratory findings, total counts for white blood cells were 6400 (June 13), 5200 (June 14), and 5800 (June 17), respectively