

Anaphylaxis after hamster bites: a rare case?

Akiko Tomitaka¹, Kayoko Suzuki², Hirohiko Akamatsu¹ and Kayoko Matsunaga¹

¹Department of Dermatology, Fujita Health University School of Medicine, Toyoake, Aichi 470-1192, ²Department of Dermatology, Daido Hospital, Nagoya, Aichi, 457-8511, Japan

Key words: anaphylaxis; contact urticaria syndrome; hamster; laboratory animals; pets; rodents.

Case Report

Hamsters are increasingly raised as pets in Japan. We found only 5 case reports of anaphylaxis after hamster bites (1–4), 3 of which, surprisingly, were from Japan (1–3).

A 36-year-old woman was admitted with symptoms of anaphylaxis. She had a past history of atopic dermatitis and bronchial asthma in childhood. For the last 2½ years she had been raising 3 hamsters and, though bitten on the hands several times, had developed no symptoms. On the day of admission, one of the hamsters had bitten her left hand. Within a few minutes she felt a warm flush in her left hand, which gradually spread and caused a generalized urticaria accompanied by pruritus of her eyes. She began to sneeze and feel itchy 20 min later, and breathing became difficult. On admission, she was pale, and her blood pressure was low (95/36 mmHg). After a few minutes she fainted and required emergency treatment with i.v. hydrocorti-

sone sodium succinate (500 mg) and antihistamines.

Specific IgE antibodies (CAP RAST FEIA) against *Dermatophagoides pteronyssinus* and house dust were class 5 but specific IgE antibodies (AlaSTAT) against mouse epithelium, mouse urine, rat epithelium, rat urine, rat serum proteins and hamster epithelium were all negative. Prick tests using prick lancets (EWO CARE AB, Sweden) with the three hamsters' saliva as is and urine, diluted to 20% in physiological saline (Otsuka Pharmaceutical Co, Ltd, Tokyo, Japan), were performed with the patient's informed consent. We filtered the solutions to sterilize them through a 0.22 µm Millex-GV membrane (Millipore, Japan). Readings were done 15 min later. We used physiological saline as a negative control and histamine chloride (Wako Pure Chemical Industries, Ltd, Osaka, Japan) 10 mg in 1 mL of physiological saline as a positive control. The diameters of wheals were 0 mm and 3 mm, respectively. On prick testing, the patient showed positive reactions to their saliva with 4 mm, 5 mm and 4 mm diameters of wheals, but negative results with their urine. Also with the patient's informed consent, we performed prick tests on her child, who had been bitten several times by the same hamsters. These tests were negative. We concluded that our patient's positive prick test reaction to the hamsters' saliva was allergic.

Discussion

There are several case reports of anaphylaxis after bites by rodents (4), mice (5) and mosquitoes (6). The nature of the antigen in hamsters' saliva is not known (1–4). As well as allergic rhinitis and bronchial asthma, hamsters as pets or laboratory ani-

mals can cause anaphylaxis from immediate-type allergy. Our patient had no recurrence once she had given her hamsters to a friend.

Acknowledgements

The authors thank Dr Steven D. Emmet, Department of Dermatology, University of California San Diego, for his linguistic and academic advice.

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Address:

Akiko Tomitaka
Department of Dermatology,
Fujita Health University School of Medicine
Toyoake
Aichi 470-1192
Tel: +81 562 93 9256.
Fax: +81 562 93 2198.
E-mail: atomi@fujita-hu.ac.jp