

Allergy to gerbils

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Summary

Pet gerbils were identified as the cause of asthma or rhinitis in three out-patients seen over a period of eighteen months. Allergy to gerbils was confirmed by skin tests, RAST and the clinical course. Gerbils are popular household pets and allergy to gerbils may be commoner than recognized.

Introduction

The gerbil or sand-rat, *Meriones unguiculatus*, is the latest rodent to have become a popular household pet. Rhinitis and asthma due to other rodents are well recognized and one case of allergic alveolitis following exposure to gerbils has been reported (Korenblat, 1977). In a recent review of the frequency of animal sensitization Rudolph (1983) mentioned six cases of allergy to gerbil seen in 9 years, but did not give clinical information. We are not aware of other reports.

Case history

We record three cases of allergy to gerbils.

Case 1

A 45-year-old man presented to his general practitioner with a 3-week history of persistent cough intermittent dyspnoea and nocturnal wheezing. He was prescribed inhaled beclomethasone and salbutamol and his symptoms disappeared. Some weeks later he stopped the treatment and his symptoms returned within 2 weeks. He was referred for investigation 3 months after the onset of symptoms.

There was no previous personal or family history of asthma or rhinitis. He stopped smoking when his symptoms began. In the previous 3 months he also had episodes of itching and watery discharge from his eyes and nose. The family kept a dog, a budgerigar and a rabbit, and two gerbils had been added 8 months earlier. The gerbils lived in a cage in the kitchen. There was no abnormality on examination and ventilatory tests were normal. Skin-prick tests gave positive immediate reactions to

Table 1. Skin prick tests and RAST in three patients with allergy to gerbils

	Skin-prick test (weal diameter in mm)							Specific IgE antibodies by RAST*		
	Common† allergens	Rat hair	Guinea- pig hair	Hamster hair	Mouse hair	Gerbil hair	Gerbil serum (10%)	Gerbil hair/ epithelium	Gerbil serum	Rat hair/ epithelium
Case 1	0	0	0	7	0	5	4	27.5	9.5	0.5
Case 2	0	0	2	0	0	5	5	18	3.5	0
Case 3	0	0	0	0	0	3	6	Not tested		

*Results expressed as the % binding ^{125}I -antihuman IgE obtained for the patient's serum above that of a pooled non-allergic control serum. For comparison, results of RAST for a patient allergic to rats (not skin tested to gerbil) were: gerbil hair 6%, gerbil serum 1.5% and rat hair 24%.

†Grass pollen, house dust, house dust mite, feathers, cat, dog, *Aspergillus fumigatus* (Bencard Ltd).

gerbil hair serum and hamster hair, and negative reactions with all the common allergens. A radio-allergo-sorbent-test (RAST) showed the presence of specific IgE antibodies to gerbil hair and also to gerbil serum, but not to rat hair (Table 1).

Another home was found for the gerbils. His symptoms cleared and he has remained well.

Case 2

A 42-year-old woman complained of a running nose, sneezing and sore, itchy eyes every day for 3 months. Her symptoms improved with chlorpheniramine but increased when this was stopped. She improved again with an intra-nasal steroid-sympathomimetic preparation (Dexarhinaspray) but was referred for investigation.

There was no previous history of rhinitis or asthma. For 4 years the family had kept a gerbil but no other pets. The gerbil lived in her daughter's bedroom (case 3) and occasionally it was allowed to run around the rest of the house. Clinical examination was normal. Skin-prick tests gave immediate reactions to gerbil hair and serum and guinea-pig dander, and negative reactions to common allergens (Table 1). RAST confirmed the presence of specific IgE antibodies to the gerbil extracts but not rat hair. Her symptoms cleared when the gerbil was removed.

Case 3

A 15-year-old girl (the daughter of case 2) complained of a running nose and sneezing for 4 years. Her symptoms were perennial and there were no obvious exacerbating factors. When the gerbil was rehoused with a relative because of her mother's rhinitis, she continued to visit it weekly and cleaned its cage. During these visits she invariably developed sneezing, nasal irritation and watery discharge with streaming eyes which persisted for 2–3 days. Clinical examination was normal. Skin-tests gave positive immediate reactions to gerbil hair and serum, and negative reactions to common allergens. She was advised to stop visiting the gerbil and her symptoms disappeared, but the occasional nostalgic visit still produces a recurrence of her symptoms.

Discussion

Gerbil allergy was established as the cause of rhinitis and asthma in the three patients

based on clinical course, skin-tests and RAST. They did not have positive skin-tests to common allergens, but one had a positive reaction with hamster dander and another with guinea-pig dander, though there was no known exposure to these animals.

A school survey from Leeds in 1976 suggested that rodents were the most popular household pets, and gerbils accounted for 61% of the total (Sarfield *et al*, 1976). It is surprising therefore that more cases of gerbil allergy have not been reported. The recognition of three cases of gerbil allergy in 18 months suggests that it may be more common than has been realized so far.

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