

Correspondence

Reply

To the Editor:

We thank Liccardi et al¹ for their comments on our article dealing with new-onset cat sensitization in adults.²

We maintain that cat-keeping and allowing a cat in the bedroom are the main determinants of indoor cat allergen levels in the general European population, as shown by a previous European Community Respiratory Health Survey (ECRHS) study³ (reference 10 of our article²). Cat allergen levels in the mattress were 200 times higher in cat-keeping homes (geometric mean, 61.4 µg/g; 95% CI, 48.4-77.9) with respect to never cat-keeping homes (geometric mean, 0.29 µg/g; 95% CI, 0.27-0.31). Moreover, log-transformed geometric mean of Fel d 1 was 10 times lower when the cat was not allowed inside the house and 4 to 5 times lower when the cat was not allowed inside the bedroom.³ Liccardi et al⁴ reported similar conclusions in a review.

The modalities of cat exposure proposed by Liccardi et al¹ could be useful to detail the level of cat allergen exposure. However, the category “direct contact elsewhere” could lead to the same level of cat exposure as “direct domestic contact,” as in domestic cleaners in houses with cats, or could stand for occasional contact with cats in friends’ or relatives’ houses. This classification would need careful validation.

We acknowledge that cat sensitization can also occur without direct cat exposure. However, we maintain that cat ownership is one of the main determinants of cat sensitization in adulthood. After examining Table I in a publication by Liccardi et al,⁵ we found that it shows strong support for our conclusions; in 1665 patients evaluated in an Allergy Service, direct exposure to cat was present in 52.4% of the people sensitized to cat but only in 2.1% of the people not sensitized—(148 – 118)/(1665 – 225) = 2.1% ($P < .001$). Anyway, to cope with indirect exposure to cat allergen, in multivariable analysis we adjusted for community prevalence of cat ownership.

Regarding the second question,¹ although we asked participants about dog ownership at both baseline and follow-up, we did not test them for dog sensitization. We did not evaluate the interaction between cat and dog exposures, but in response to this query, we can report that the positive association between cat acquisition and new-onset cat sensitization was modified by changes in dog ownership. However, dog exposure did not enhance cat sensitization, but rather seemed to exert a protective effect, in agreement with the current literature.⁶ None of the subjects acquiring a cat became sensitized to cat if they kept a dog at both surveys, while the probability of becoming sensitized to cat was doubled in those who had a dog only at the first survey (Table I).

Finally, the hypothesis of an allergic phenotype to animal allergens is interesting but would be better investigated by allergen component recognition⁷ rather than by skin prick test alone.

In conclusion, cat ownership is the main determinant of cat allergen levels in dwellings. Acquiring a cat is a risk factor for

TABLE I. New-onset cat sensitization in 650 ECRHS II participants who acquired a cat during the follow-up, as a function of changes in dog ownership

	Newly sensitized to cat (n = 35)	P value
Dog ownership		.014
No dog	25 of 460 (5.4%)	
Dog removal	6 of 45 (13.3%)	
Dog continuation	0 of 71 (0%)	
Dog acquisition	4 of 74 (5.4%)	

new-onset cat sensitization in adults, even after controlling for 12 other factors, although we cannot exclude other known or unknown risk factors.

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