

Correspondence

Quality of life and pets

To the Editor:

I read with much interest the article of Wegienka et al,¹ having already pointed out that I am very keen on cats and dogs.²

From their collection of data, the authors conclude that little can be assumed regarding living with pets. I agree with the authors' statement that the mechanism of the role of pets in allergy development is still unexplained.

As the hygiene hypothesis suggests³ (and the authors noted) pet ownership is associated with exposure to a wide bacterial population both in household dust and in the ambient air outdoors, so these exposures influence bacterial colonization of the infant's gastrointestinal tract, maturation of immune responsiveness, and development of allergy and atopic asthma.

In my opinion, some aspects must be focused on.

One reason their results did not support their hypothesis with respect to total IgE levels and general sensitization at the age of 18 years might be that at this age young people no longer think of their pets as just toys. As a consequence, the effects of pets on the home ecology affecting children's health in early life will no longer be present in the late teenage years.

In regard to the authors' statement that in subjects without a parental history of allergy "a protective effect was only found for dog ownership,"¹ what I have already suggested² might be considered—namely, that living with a dog implies at least 2 outdoor walks each day with the pet and it is doubtful that a full disinfection is always carried out after one returns home.

Otherwise, Wegienka et al¹ report that childhood exposure to cats was associated with decreased cat sensitization. It must be taken into account that a house cat spends much of its waking time grooming itself, so it may be supposed that outdoors allergens are not present to a greater extent in the ambient air.

Finally, the fact that no distinction has been made in how pets came in contact with patients may add confusion in the conclusions. The following question could have been presented: "How many weeks (as a cumulative number of days) did your child stay in his/her friend's home, if pets are present there?" Quantifying the exposure to pets is really problematic.

We are living in an open system, so we can improve our life only by interacting with pets, foods, soil, and water (the last two of these, for children, in the form of mud) to live our lives the best we can; our DNA knows how to achieve that goal. In fact, it has been suggested that genetic polymorphisms can modify the effects of environmental exposures.⁴

Despite the few fearful cases of pet allergy, isn't a dog watching you in great expectation and defending your home from suspicious-looking individuals or a cat that suddenly appears purring near your legs (which you keep still, so as not to disturb it when it is curled up at the end of your bed), worth a couple of sneezes?

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Disclosure of potential conflict of interest: The author has declared that he has no conflict of interest.

REFERENCES

1. Wegienka G, Johnson CC, Havstad S, Ownby DR, Zoratti EM. Indoor pet exposure and the outcomes of total IgE and sensitization at age 18 years. *J Allergy Clin Immunol* 2010;126:274-9.e5.
2. Brenna OV. Cats and dogs: an attractive remedy versus atopy? *J Allergy Clin Immunol* 2010;125:765.
3. Liu AH, Szeffler SJ. Advances in childhood asthma: hygiene hypothesis, natural history, and management. *J Allergy Clin Immunol* 2003;111:S785-92.
4. Vercelli D. Gene-environment interactions in asthma and allergy: the end of the beginning? *Curr Opin Allergy Clin Immunol* 2010;10:145-8.

doi:10.1016/j.jaci.2010.08.033