

Does early allergen exposure to dust mites, cats, and dogs decrease sensitization, reflected by low levels of ige, in pediatric patients?

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Abstract

Background:

Atopic diseases are common in childhood, and occur due to a genetic predisposition to develop IgE antibodies after being exposed to specific allergens. Some studies have shown that early allergen exposure may decrease allergic sensitization and the risk of developing atopic disease.

Purpose:

The purpose of this analysis is to evaluate if early exposure to common allergens including dust mites, cats, and dogs decreases sensitization in pediatric patients, reflected by low levels of IgE, when compared to no or limited exposure to environmental allergens.

Materials and Methods:

Research was conducted using Cochrane, PubMed, and Google Scholar. Terms searched were “early allergen exposure”, “sensitization”, “IgE”, “dust mites”, “cats”, and “dogs”. Parameters included patients under the age of 18 years at the start of the study, excluding meta analyses and systematic reviews. Twenty articles met the inclusion criteria.

Results:

Most studies showed that early allergen exposure increased sensitization and symptoms of atopic disease, although some found decreased risk of sensitization and allergic symptoms, and others found no relation. Data differed depending on the allergen, and we could not account for possible confounding variables such as socioeconomic status and geographic location.

Conclusion:

Early allergen exposure yields an increase in sensitization and symptoms of atopic disease. Children with allergic symptoms could benefit from avoidance of allergen triggers and immunotherapy. However, due to the variability in results, further studies are needed to validate this claim. Further research could aim to determine ages for when children are more susceptible to developing sensitization.



Biography:

Brooke Palomo is a student currently pursuing her study in The University of Texas at Austin, United States.

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