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CORRESPONDENCE

Profile of Aeroallergen Sensitization in Childhood Asthmatics Aged 4–14 y at a Tertiary Care Hospital

Salabha Muraleedharan[1] · Nisha Narendran[1] · Rajany Jose[2]

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To the Editor: Allergen sensitization is a criterion of the modified asthma predictive index [1, 2]. Sensitized children have severe asthma and severe exacerbations [3, 4]. Skin prick testing (SPT) results help in environmental control, keeping medication doses to a minimum, and considering allergen-specific immunotherapy to treat and prevent IgE-mediated allergy [4]. This cross-sectional study of one-year duration aimed to determine the aeroallergen sensitization profile in childhood asthmatics aged 4–14 y attending the asthma clinic of a tertiary care hospital in South India. Excluding children with systemic illnesses, severe asthma, severe eczema, and anaphylaxis, data was collected using a proforma from consecutive 60 patients after taking IEC approval, informed consent from parents, children or oral assent as appropriate. SPT was done using negative and positive controls and indoor allergen extracts [Allcure 1:10 w/v in glycerinated buffered saline (50%)]. Results were analyzed.

The predominant age of symptom onset was 4–6 y (26.7%); most had moderate persistent asthma category of severity (58.3%). Of the 39 sensitized children, 29 (74.3%) had moderate persistent asthma ($\chi^2 = 0.713$, df = 2, p-value = 0.70). Thirty-nine children out of 60 (63%) were either mono- or poly-sensitized. Considering the positive history of allergens exposure, 21 out of 28 cockroaches-exposed children were sensitized (68.2%), 21 out of 23 house dust mites (HDM)- exposed (91%) were sensitized, while less sensitization was noted in Alternaria (2.5%), and cats exposed (12.5%). Moderate persistent asthma was noted in 24 (79.4%) of the 31 cockroach-sensitized children ($\chi^2 = 9.973$, df = 2, p-value = 0.007) and in 24 (82.75%) of the 29 HDM sensitized children ($\chi^2 = 13.777$, df = 2, p-value = 0.001). The maximum wheal size with pseudopodia was for HDM (20 × 16 mm). Borderline wheal sizes need follow-up testing for progression.

To conclude, aeroallergen sensitization to HDM and cockroaches could be a marker for increased severity of asthma in children.

Declarations

Conflict of Interest None.

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✉ Nisha Narendran
nnped@gmail.com

[1] Department of Pediatrics, Government Medical College, Thrissur, Kerala, India

[2] Department of Community Medicine, Government Medical College, Thrissur, Kerala, India