

ORIGINAL ARTICLE

Year : 2016 | Volume : 30 | Issue : 1 | Page : 17--21

Estimation of serum immunoglobulin E levels as suggestive indicator of atopy in children having allergic rhinitis

Chetan Meena¹, Mohit Poddar², Bhagwan Sahai Sharma¹, Kusum Devpura¹, Mamta Meena³

¹ Department of Pediatrics, SMS Medical College, Jaipur, Rajasthan, India

² Department of Pediatrics, National Institute of Medical Sciences, Jaipur, Rajasthan, India

³ Department of Pediatrics, Deen Dayal Upadhyay Hospital, New Delhi, India

Correspondence Address:

Chetan Meena

5-H-112, Indira Gandhi Nagar, Jagatpura, Jaipur, Rajasthan
India

Background: Atopy is the major factor predisposing for the development of allergic airway diseases. Immunoglobulin E (IgE) levels of children having atopy are elevated as compared with nonatopic children. Serum total IgE levels can be utilized as a surrogate marker for the presence of atopy. **Objective:** To study the presence of atopy by estimation of serum IgE levels in children having allergic rhinitis and to determine the proportion of concomitant allergic conditions in these children. **Methods:** From May 2012 to April 2013, 134 children aged 6-14 years having allergic rhinitis as diagnosed on the basis of their response to the International Study of Asthma and Allergies in Childhood (ISAAC) questionnaire were included in the study. Children were screened for concomitant atopic disorders, viz., asthma, atopic eczema, and conjunctivitis on the basis of their response to ISAAC questionnaire. Total serum IgE levels were determined for all subjects. **Results:** Total IgE levels of study subjects were found to be increased in 114 (85.07%) out of 134 children (cut-off value = 100 IU/mL). Mean serum IgE of the study subjects was 312.18 (95% confidence interval, 253.1-385.1) IU/mL. Children having persistent allergic rhinitis had higher mean IgE levels of 392.18 IU/mL as compared to 199.08 IU/mL ($P < 0.01$) for children having intermittent allergic rhinitis. One hundred and twenty-two (91.0%) children had concomitant asthma. Persistent allergic rhinitis was found to be significantly associated with family history of smoking ($P < 0.01$) and family history of atopy ($P = 0.02$). **Conclusion:** Significant number of children having allergic rhinitis had increased levels of serum IgE. Hence, total serum IgE can be considered as a supportive and suggestive indicator of atopy in children presenting with allergic rhinitis.

How to cite this article:

Meena C, Poddar M, Sharma BS, Devpura K, Meena M. Estimation of serum immunoglobulin E levels as suggestive indicator of atopy in children having allergic rhinitis. Indian J Allergy Asthma Immunol 2016;30:17-21

How to cite this URL:

Meena C, Poddar M, Sharma BS, Devpura K, Meena M. Estimation of serum immunoglobulin E levels as suggestive indicator of atopy in children having allergic rhinitis. Indian J Allergy Asthma Immunol [serial online] 2016 [cited 2016 Sep 20];30:17-21

Available from: <http://www.ijaai.in/article.asp?issn=0972-6691;year=2016;volume=30;issue=1;spage=17;epage=21;aulast=Meena;type=0>

[Site Map](#) | [Home](#) | [Contact Us](#) | [Feedback](#) | [Copyright and Disclaimer](#)