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Title: Serum level of specific IgG antibody for aspergillus and its association with severity of asthma in asthmatic children

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Body: Background: Aspergillosis is one of the frequent causes of exacerbation of asthma depending on the geographical regions. The specific serum IgG level for aspergillus is a major diagnostic criterion in aspergillosis. Methods: Ninety six asthmatic patients, with mean age of 5.4 ± 3.0 years who were referred to the asthma clinic of the Mofid Children's Hospital, were enrolled in this study. Serum specific IgG for aspergillus was measured and its association with severity of asthma was evaluated. Results: Nineteen asthmatic patients (10 females and 9 males) had aspergillus IgG antibody. Among them, severe persistent asthma and moderate persistent asthma were detected in 5 and 13 cases, respectively, whereas only one patient suffered from mild persistent asthma. A total of 36.5% of the 96 patients had a history of atopy, while 26% had allergic rhinitis. There was an association between the severity of asthma and the presence of aspergillus IgG antibody. Moreover, the positivity for aspergillus IgG antibody was higher in older patients. Conclusion: Our results indicated an association between aspergillus antibody level and severity of asthma. It could be recommended that the IgG titer for aspergillus is measured in pediatric patients with asthma, whereas co-morbidity of aspergillosis and asthma increases the risk of asthma exacerbation.