Dynamic changes in serum immunoglobulin E and T lymphocytes in children with bronchial asthma

LI Jian-mu, LI Qiong-lin

(Department of Pediatrics, Xiantao First People's Hospital, Xiantao 433000, China)

[Foundation Project]: It is supported by Clinical Special Fund of Medical Periodicals of Chinese Universities and Colleges (11321425).

[Author]: LI Jian-mu (1971-), Male, Xiantao Hubei, Associate Chief Physician, M. B., Tel: 15908616668, Email: 583999846@qq.com.

Received: 2014-12-18 Revised: 2014-12-25

JHMC, 2015; 21(3): 313-315

View from specialist: It is creative and of certain scientific and educational value.

[ABSTRACT] Objective: To investigate the dynamic changes and clinical significance of serum immunoglobulin E (IgE) and T lymphocytes in children with bronchial asthma. Methods: A total of 45 children with bronchial asthma served as asthma group while another 35 healthy children undergoing physical examination as control group. Subgroups of T lymphocytes and IgE levels in onset and remission stages in asthma group and control group were detected. Results: CD3+ CD4+ cell levels, ratio of CD4+ / CD8+ and total IgE level were evidently higher in onset stage in asthma group than in control group (P<0.01), which were also significantly improved at remission stage (P<0.01), and the differences were significant when compared with control group (P<0.01). After 1-year follow up, the average attack frequency score and severity score of asthma were (3.56 ± 1.07) and (5.19 ± 2.47) scores, respectively. Pearson relevance analysis showed that total IgE level was in positive association with the attack frequency of asthma (r = 0.562, P<0.01). Conclusions: The complementary T lymphocytes are decreased and total IgE level increased significantly in the peripheral blood of children with bronchial asthma, both of which are of great importance in the development and progression of asthma.

[KEY WORDS] Bronchial asthma; Immunoglobulin E; T lymphocytes; Immunity; Inflammatory response