

The Condition of Cytokine Indicators in Children Affected by Acute Middle Otitis, Developed Against the Background of Diabetes Mellitus Assessment

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Abstract The most important function of inflammatory pre-cytokinin is its participation in the mediation of monosubates between lymphocytes and macrophs and the regulation of the ratio of cellular and humoral components of the immune response. Th1-the main product of cells, inflammatory Oldi cytokine Th2-reduces the secretory activity of cells. Thus, the inflammation received cytokine is the main cytokine of the cellular immune response and the inhibitor of the humoral immune response, which plays an important role in immunoregulation.

Keywords Monosubates, Pre-cytokinin, Immunoregulation, Diabetes, Time of violation, T-helper, Ifn- γ , Anti-inflammatory

1. Introduction

Immune-mediated mechanisms also play a large role in the formation of diabetes in children, in particular, changes in the state of cytokine, which, with the predominance of the inflammatory process, provoke immune reactions, which makes it possible to evaluate them as "markers" [1].

Currently, cytokines are identified as a new independent system for regulating the main functions of the body, primarily associated with the introduction of pathogens and the maintenance of homeostasis at the time of violation of the integrity of tissues. As you know cytokines are a group of polypeptide mediators that are involved in the formation and regulation of the body's protective reactions. The study of cytokine levels provides information on the functional activity of immunocompetent cells of various types; the severity of the withdrawal of the inflammatory process, its transition to a systemic level and prognosis, provides information for the course of the activation processes of T-helper in Category 1 and 2. [2,3] Assessment to determine the level of cytokines, in particular, using immunoferment diagnostic test-systems, makes it possible in clinical practice to take a new approach to the study of the state of the body's immune system [4].

Inflammation has taken place and anti-inflammatory cytokines control inflammatory processes. Cytokines such as Ifn- γ and IL-4 are involved in regulation of specific immune response that regulates the amplitude and duration of inflammatory and immune responses [5,6].

This source of Ifn- γ is the bulib of activated T-lymphocytes and natural killers. Among T-lymphocytes, the manufacturers of anti-inflammatory cytokines are both cytotoxic CD8+ and helper CD4+ cells, but when they are differentiated into Th1 and Th2, the phagate Th1 cells received inflammation and retain the ability to produce cytokines. The most important function of inflammatory pre-cytokinin is its participation in the mediation of monosubates between lymphocytes and macrophs and the regulation of the ratio of cellular and humoral components of the immune response. Th1-the main product of cells, inflammatory oldi cytokine Th2-reduces the secretory activity of cells [7,8]. Thus, the inflammation received cytokine is the main cytokine of the cellular immune response and the inhibitor of the humoral immune response, which plays an important role in immunoregulation.

Ifn- γ has been described as a V-lymphocyte stimulating factor because it causes an increase in V-cells. The main manufacturers of the IL-4 are Class 2 T-helpers. IL-4 is synthesized by cloudy cells and V-cell orientation cells. IL-4 reduces the functions of macrophages and their secretions IL-1, TNF and IL-6, has an anti-inflammatory effect [9,10]. Thus, IL-4 Th2 is the main product of cells and stimulates their differentiation. It causes differentiation of B - and T-lymphocytes, affects the development of hematopoietic cells, macrophages, natural killers,basophils, which are functional antagonists of cytokines produced by TX1 cells. IL-4 helps in the development of allergic reactions, has a pronounced anti-inflammatory effect [11].

We studied the character of anti-inflammatory cytokines and received inflammation in children with OYO, which developed against the background of diabetes mellitus. The data obtained is given in Figure 1.

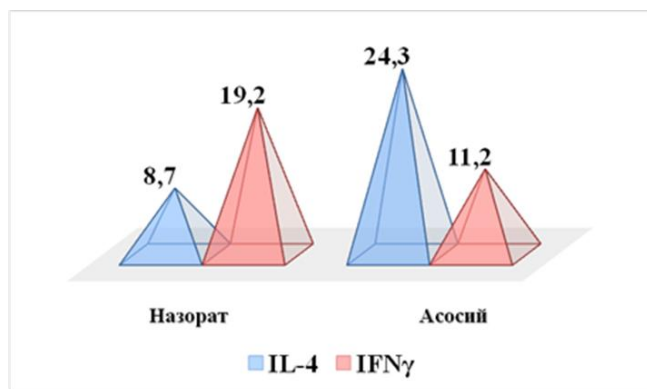


Figure 1. Acquired inflammation in children under investigation and anti-inflammatory cytokine levels, PG / ml, ($R \leq 0.05$)

We took yallgmentation in children with OYO, which developed against the background of strongly expressed diabetes mellitus, and studied the type of anti-inflammatory cytokines. The analysis of the results obtained revealed the truthful differences between the values in the control group and the children of the main group [12,13].

For example, IFN- γ levels in healthy children averaged 19.2 ± 5.38 PG/mL, with this indicator of 11.2 ± 2.07 PG/ml in the main group of children. Thus, in children of the main group, the level of ifn- γ decreased by 1.71 times, as evidenced by the intensity of the inflammatory process ($R \leq 0.05$). Although the average ifn in children in the control group decreased in the main group, among them there were isolated cases of increased secretion of this cytokine, which was about 4% among selected children [14,15].

In a study of il-4 levels in children in the control group, it was 8.7 ± 1.65 PG/ml, and in children of the main group it was 24.3 ± 5.72 PG/ml. At the same time, anti-inflammatory tsitokin il-4 levels were seen to increase significantly by 2.79 times ($r < 0.05$). Children with OYO developed against the background of diabetes mellitus received serum inflammation, and changes in the composition and proportion of anti-inflammatory cytokines confirm the continuation of the inflammatory process [16].

Thus, the clinical course and manifestation of the disease in children with OYO developed against the background of diabetes mellitus is significantly characterized by a decrease in cellular and humoral immunity in the body, a reliable increase in anti-inflammatory cytokines, which are the main regulators of acute inflammation, that is, the main regulator of the acute inflammatory process, and a decrease in When the data of the results obtained are summarized, it can be said that Oyo developed against the background of diabetes mellitus has its own clinical course and clinical-laboratory characteristics, which are fundamentally different from the clinical course of Oyo without diabetes and are characterized by less pronounced symptoms of middle ear inflammation [17,18].

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