

SOME IMMUNOLOGICAL INDICES AS MARKERS OF NON-STREPTOCOCCAL ETHIOLOGY OF TONSILLITIS PHARYNGITISES IN CHILDREN

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Introduction: Groundless administration of antibiotic therapy in acute tonsillitis pharyngitises in children is due to difficulties arising in clinicians in the early detection of the disease etiologic factor.

Aim: Studying a diagnostic value of some immunological indices for the verification of non-streptococcal etiology of tonsillitis pharyngitises in children to optimize their treatment.

Materials and methods: The first observation group included 66 patients with acute tonsillitis pharyngitis of non-streptococcal etiology. The second clinical group consisted of 32 children diagnosed with "acute streptococcal tonsillitis pharyngitis." The comparison groups were comparable for their main clinical characteristics.

Results: It has been established that the content of interleukin-6 in the serum of the patients in clinical groups was not significantly different ($13,2 \pm 2,2$ pg / ml in clinical group I versus $15,1 \pm 2,6$ pg / ml ($r > 0,05$) in the comparison group). However, the level of interleukin-8, produced under the influence of bacterial endotoxins, in the first clinical group patients' serum was reliably lower. For instance, in the children with non-streptococcal tonsillitis the content of this proinflammatory cytokine was $18,6 \pm 3,8$ pg / ml, and in children with streptococcal disease etiology - $44,2 \pm 11,4$ pg / ml ($p < 0,05$). It has been proved that the content of interleukin-6 within the age norm in the serum of patients with acute tonsillitis pharyngitises was associated with a risk of non-streptococcal tonsillitis as follows: a relative risk 1.4 (95% CI 1,0-1,7) at odds ratio (OR) 1.8 (95% CI 1,0-3,2). With interleukin-8 rate less than 15 pg / ml in the serum of children with inflammatory symptoms in their oropharynx the risk of having non-streptococcal tonsillitis increases almost 3-fold (odds ratio - 2.7 (95% CI 1,3-5,0)).

Conclusion: Thus, the development of acute non-streptococcal tonsillitis in children is accompanied by a decrease of interleukin-8 content in the serum. The concentration index of above mentioned proinflammatory cytokine less than 15.0 pg / ml in the serum of patients with acute tonsillitis pharyngitises increases the risk of non-streptococcal etiology of the disease by 3 times.

Keywords: children, tonsillitis pharyngitis, interleukins

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