

# Cytokiny w popłuczynach z zatok szczękowych jako wykładnik stanu zapalnego

The cytokines at maxillary sinuses washings as inflammatory process expression

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**Introduction.** In a pathogenetic chain of chronic sinusitis there is a set of cellular and humoral factors that are accepted as characteristic of a chronic inflammatory process. These include mast cells, granulocytes (basophilic and acidophilic), macrophages, lymphocytes, leukotrienes (leukotrienes), and some pro-inflammatory cytokines. In the majority of cases these are effector factors that finalize pathogenetic immunological response. By determining concentration of pro-inflammatory and immunoregulatory cytokines present in the place where the disease process is in progress we can distinguish the type of inflammatory condition and thus select the type and duration of treatment. **Material and methods.** The subject of the study was a group of 75 patients aged 18-60 with clinically confirmed chronic sinusitis; the diagnosis was made on the basis of history, physical examination as well as otolaryngological and imaging (CT scans) examination. Measurement of cytokines' activity was based on establishing concentration of cytokines in 1ml (millilitre) of liquid recovered from puncture of maxillary sinus and subjected to centrifugation (lavage of maxillary sinuses) using ELISA (an immuno-enzymatic method) and kits produced by R&D company (Minneapolis, USA.) The following levels were examined: IL-1b, IL-1ra, IL-4, IL-6, IL-10. **Results.** Depending on the type of inflammatory process (allergic or bacterial), a difference in the level of IL-1b/IL-1ra and IL-4 i IL-10 concentration was discovered in patients examined. The static analysis focused on how progression of the disease influenced the results obtained. **Conclusions.** Determining the amount of cytokines in maxillary washings allows differentiating chronic sinusitis.