

## QUANTIFICATION OF CD11C-IMMUNOPOSITIVE CELLS IN DIFFERENT TYPES OF CHRONIC TONSILLITIS

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CD11c is a transmembrane protein, belonging to the  $\beta 2$  integrin subfamily. It is generally accepted as a marker of conventional dendritic cells, but can also be found on macrophages, neutrophils, and some B cells. The aim of this paper was to determine numerical areal density of CD11c-immunopositive cells in different morphological compartments of tonsillar tissue in recurrent tonsillitis (RT) and chronic hypertrophic tonsillitis (CHT). As a material we used tonsils which were taken after tonsillectomy, from patients of both sexes, aged 10-29 years: six tonsils with RT and nine tonsils with CHT. The quantification of the CD11c-immunopositive cells was performed on 5  $\mu$ m thick serial paraffin tissue slices, which were stained immunohistochemically, by using mouse monoclonal anti-CD11c antibody. For quantification we used ImageJ software. Our results showed that CD11c-immunopositive cells were present in all morphological compartments of tonsils with RT and CHT. The higher value for numerical areal density of CD11c-immunopositive cells in RT showed statistically significant difference in crypt epithelium and subepithelial lymphoid tissue compared to CHT. There was not statistically significant difference of CD11c-immunopositive cells in lymphoid follicles and interfollicular regions between the groups. Crypt epithelium and subepithelial lymphoid tissue represent the first site of contact between antigens and tonsillar tissue, and are crucial for the initiation of the immune response. The higher number of CD11c-immunopositive cells in crypt epithelium and subepithelial lymphoid tissue in RT might be connected with more efficient immunological response of this morphological compartment, compared to CHT.

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