

“comfortable” and their price is lower than that of the precast. Interdisciplinary approach is needed for investigation and treatment by these devices

**Keywords:** OSA, mild ronhopathy, Somnoguard, Somnofit, individual guards.

## QUANTITATIVE ANALYSIS OF MACROPHAGES IN THE PERIODONTIUM OF THE FIRST UPPER PREMOLAR ON DIFFERENT SURFACES AND ROOT LEVELS

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**Introduction:** The periodontium contains a considerable quantity of the cells providing reparative, protective reactions when develop an inflammation. The leading part in development and a current of protective reactions is played by macrophages. Macrophages contain in small amounts, mainly in an interstitial connecting tissue of a periodontium. Their maintenance is sharply enlarged at various inflammatory processes.

**Methods:** For researches were used 7 fragments of the maxillary bone with the premolars, taken from corpses of people of age group 45-65 years. A material fixed in 10% formalin. After made its decalcification in 15% a solution of nitric acid and filled in paraffin. Sections prepared in a horizontal plane of an apical, average and at gum level of a root, painted a hematoxylin and eosine on Van-Gizon. With help of Avtandilov's grid inserted into an ocular of a microscope, defined quantity of macrophages. Statistical data processing spent with use of program Excel. To an estimation of the importance of differences ( $p < 0,05$ ) applied criterion the Mann-Whitney. Results represented in the form of  $X \pm m$ ; where X-selective average, m-average error.

**Results:** Quantity of macrophages is more at the gum level, than in average and apical root parts. The greatest quantity is located on a distal surface ( $8,7 \pm 1,2\%$ ) of gum level. At apical level from the similar surface their quantity is significant less ( $3,9 \pm 0,4\%$ ). On a medial surface in an apical part the index was significantly more low, than in gum and average levels of the similar surface in 3 and 2 times accordingly ( $p < 0,05$ ). The index on a distal surface in the apical part was more low, than on gum and average levels of the similar party in 1,5 and 1,2 times accordingly ( $p < 0,05$ ). The index on a palatal surface in gum level, significantly exceeded indexes in average and apical areas of the same surface in 3 and 4,5 times accordingly ( $p < 0,05$ ). On a vestibular surface in an apical part the index is authentic more low in 6 times, than on gum level to the similar surface ( $p < 0,05$ ).

**Conclusion:** The greatest quantity of macrophages in gum parts, possibly, is caused by constant contact to an oral cavity and with a tooth plaque. It is necessary to mention about gum sulcus where circulates liquid. Gum liquid contains cells possessing antimicrobial action, including macrophages. At healthy gum the liquid do not find out or it appears in insignificant quantity. With ascending of inflammation of a gum the quantity of liquid is considerably enlarged and the quantity of the macrophages participating in local immunity is enlarged.

**Keywords:** first upper premolar, periodontium, macrophages.