



elimination of perifocal inflammation, hyperemia, infiltration of the edges of damage, timing of purification from necrotic tissues, the beginning of epithelization and its completion.

Analyzing the visual observation data obtained in evaluating changes in the area of ulcerous damage of the mucous membrane of the alveolar process a marked difference in the dynamics of the pathological process between the animals of the research and control groups was found. The most noticeable differences relate to the initial phase – the phase of the inflammatory process.

Thus, based on the obtained results, it can be concluded that anti-oxidant effect of antibacterial and protective agents decreases the damage of tissue and cell structures in the damaged area. As a result, healing wound surfaces occurred two days earlier in the experimental group than that of the control.

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## **THE STATE OF PHYSICAL-CHEMICAL PROPERTIES OF THE ORAL FLUID IN PATIENTS SUFFERED FROM DIABETES MELLITUS**

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Diabetes mellitus is one of the leading medical-social issues. Millions of people in all the countries of the world suffer from this disease. It occupies the third position in the world after cardiovascular and oncological diseases. The first signs of diabetes are known to be changes in the oral cavity being of a considerable diagnostic value. Diabetic patients in comparison with individuals without somatic pathology manifest dry and pastose content of the oral cavity mucus and hyposalivation resulting in increased dental deposits, increased general fibrinolytic activity of the oral fluid, and intensified gingival bleeding.

The objective of the study was investigation of physical-chemical properties of the oral fluid in patients suffering from type 2 diabetes mellitus requiring surgical sanitization of the oral cavity.

41 patients afflicted with type 2 diabetes mellitus aged from 38 to 69 were examined. The control group included 25 somatically healthy individuals of the same age. To determine secretory activity of the large and small salivary glands the oral fluid was taken in the morning on empty stomach during 5 minutes without stimulation, and 5 minutes after stimulation before doing medical indications and manipulations. To stimulate excretion of the oral fluid the oral cavity was rinsed with 20 ml of 0,5% citric acid solution during 5 seconds. Salivation rate (ml/min), specific gravity ( $\text{kg/m}^3$ ), pH (relative units) and viscosity (cP) were examined.

Salivation rate of non-stimulated oral fluid at the beginning of surgical sanitization of the oral cavity reduced in 2,1 times and was  $0,31 \pm 0,01$  ml/min, and stimulated one – in 1,8 times ( $0,48 \pm 0,02$  ml/min) as compared to the indices of the control group ( $0,66 \pm 0,02$  ml/min in non-stimulated fluid and  $0,84 \pm 0,04$  ml/min after its stimulation). At the same time, specific gravity of non-stimulated and stimulated oral fluid increased inconsiderably as compared to practically healthy individuals and was  $1,029 \pm 0,04$   $\text{kg/m}^3$  without stimulation and  $1,020 \pm 0,05$   $\text{kg/m}^3$  after stimulation. As compared to the control group a tendency to reduced pH of non-stimulated oral fluid in 1,5 times was determined ( $4,61 \pm 0,22$  relative units) and stimulated one – in 1,3 times ( $5,82 \pm 0,24$  relative units). Viscosity of the non-stimulated oral fluid in patients increased in 2,4 times ( $5,83 \pm 0,97$  cP) and stimulated one – in 1,9 times ( $3,62 \pm 0,41$  cP) as compared to the indices of the control group ( $2,41 \pm 0,19$  cP without stimulation and  $1,93 \pm 0,09$  cP after stimulation). On the moment of sanitization completion in patients of the main group there were no reliable changes found in the rate of salivation, specific gravity, pH and viscosity of non-stimulated and stimulated oral fluid as compared to the beginning of sanitization.

Therefore, type 2 diabetes mellitus is associated with reduced rate of salivation both before and after stimulation, decreased concentration of hydrogen ions, and increased viscosity of the oral fluid with unchanged indices of specific gravity, which undoubtedly influences upon the quality of healing the cavity after tooth extraction and can result in complications in the form of acute inflammatory process. Lack of a positive dynamics in laboratory findings of patients suffering from type 2 diabetes mellitus after surgical sanitization of the oral cavity promotes elaboration of preventive and therapeutic measures directed to primary elimination or correction of the determined disorders.

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## **МІНЛИВІСТЬ ЛОБОВИХ ПАЗУХ В ОНТОГЕНЕЗІ ЛЮДИНИ**

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Сучасна клініка вимагає більш точних даних щодо індивідуальної анатомічної мінливості у постнатальному періоді розвитку. З віком міняються не тільки розміри, форма, положення органів, але й межі їх індивідуальних коливань. Таким чином, актуальність даного дослідження зумовлена необхідністю комплексного вивчення становлення та топографо-анатомічних взаємовідношень стінок лобових пазух із суміжними структурами в онтогенезі людини, з'ясування анатомічних змін, вікової індивідуальної мінливості, прогресивних та регресивних реформацій пазух впродовж життя людини для морфологічного обґрунтування окремих нових методів хірургічного втручання в оториноларингології в різні вікові періоди.

Метою нашого дослідження було встановити мінливість лобових пазух в онтогенезі людини.