graveolens var. rapaceum (edible rooted celery, celery root or celeriac) and *Apium graveolens var. secalinum* (leaf celery or smallage type) [2].

The chemical composition of celery differs considerably depending upon the plant part (leaves, stalks or seeds), geographical region of production, stage of harvesting and type and method of production of essential oil. All the organs consist of essential oil, organic acids , coumarins, flavonoids and pectins. The main components of fruits volatile oil are :lemonene selinene, santalol, sedanolide.

Literature data revealed that *A. graveolens* have many pharmacological activity as antifungal and antimicrobial, antihypertensive and hypolipidemic, diuretic, hepatoprotective, antioxidant, anticancer, antidiabetic, anti-inflammatory, analgesic, antiulcer, anti-spasmolytic, anti-infertility, antiplatelet, hypocholesterolemic, cardiotonic [1, 2].

We carried out determination of phenolic compounds in *Apium graveolens var. rapaceum* (edible rooted celery) leaves, petioles and roots, collected in September 2017. Flavanoids and hydroxycinamic acids were found in ethanol extract of all samples by TLC method using solvent system ethyl acetate-water-acetic acid (30:10:10).

In our further study, we will conduct a comparative phytochemical analysis of the biologically active compounds of various celery organs and their effect on the kidney function and the uric acid exchange.

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Study of the antioxidant properties of some medicinal plants in experimental gingivitis

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Introduction. According to WHO, periodontal disease is widespread among the population of the entire globe. The structure of periodontal diseases is dominated by inflammatory – gingivitis, periodontitis. Thus, the high prevalence of inflammatory periodontal diseases, significant changes in the dentofacial system of the diseased make this problem social, generally medical [2].

Strengthening of peroxidation processes play a significant role in the pathogenesis of many human diseases, including inflammatory lesions of periodontal tissues. In recent years, antioxidants have been increasingly used to stabilize cell membranes and improve reparative processes [6].

It should be noted that gingivitis in children is an independent nosological unit for which restitution of the structure and function of periodontal tissues is possible. Violation of the integrity and functioning of the oral epithelium may be a consequence of a change in the rate of cell renewal,

its acceleration or deceleration. Violation of cell renewal and protective proteins of the oral epithelium may be the initial factor of the inflammatory periodontal pathology. Indicators to assess damage to periodontal activity are lipid peroxidation and antioxidant systems [4]. It is these two processes that normally perform the physiological function of renewing old and destroyed cell structures. Today, according to the results of a large number of studies, the concept of molecular mechanisms of periodontal damage by lipid peroxidation (LPO) processes with a reduced level of functioning of the physiological antioxidant system (AOS) is recognized [7].

In recent years, along with the known concepts of the development of inflammatory periodontal damage, considerable attention has been paid to the activation of free radical lipid oxidation. Data on the involvement of the lipid peroxidation in the pathogenesis of inflammatory periodontal diseases indicate the feasibility of using antioxidants and other bioregulators in complex therapy.

The aim of the study is to evaluate the antioxidant properties of medicinal plant extracts from pharmaceutical samples of *Quercus robur* L. bark, *Hypericum perforatum* L. herb, *Chelidonium majus* L. herb, *Salvia officinalis* L. leaves, *Urtica dioica* L. leaves and experimentally substantiate the expediency of their use in gingivitis.

Materials and methods. Experimental gingivitis was caused on 60 white non-linear rats by preliminary creation of a state of oral dysbacteriosis (intragastric administration of lincomycin at a dose of 60 mg / kg for 5 days) and subsequent local damage to the gums and tissues of the vestibule of the mouth with applications of bee venom suspension (1 mg / kg at a dose of 2 ml twice a day for 3 days) [3].

The state of the lipid peroxidation system was judged by the concentration of malonic dialdehyde (MDA), which was determined by the tiobarbituric acid method [5].

To assess the antioxidant system, the catalase activity was determined spectrophotometrically [1].

The results of the study. Analysis of the results of the study showed that in rats with experimental gingivitis there was an activation of lipid peroxidation processes, as evidenced by an increase in the concentration of MDA in the serum in 2.3 times. At the same time, a decrease in antioxidant defense was observed, indicating a decrease in the activity of catalase in 1.6 times. The use of extracts of 5 medicinal plants (*Quercus robur* L. bark, *Hypericum perforatum* L. herb, *Chelidonium majus* L. herb, *Salvia officinalis* L. leaves, *Urtica dioica* L. leaves) for 5 days led to changes in the indicators of the prooxidant-antioxidant state towards normalization. All studied extracts of medicinal plants suppressed the level of lipid peroxidation, as evidenced by a decrease in the concentration of MDA: under the influence of *Quercus robur* L. bark by 78%; *Urtica dioica* L. leaves by 75%; *Salvia officinalis* L. leaves by 71%; *Hypericum perforatum* L. herb by 65%; *Chelidonium majus* L. herb by 62%.

It was found that all the studied extracts of medicinal plants increased the activity of catalase, but to varying degrees. The greatest influence on this indicator had an extract of *Urtica dioica* L. leaves and *Quercus robur* L. bark (by 61%), less – *Hypericum perforatum* L. herb (by 52%), *Salvia officinalis* L. leaves (by 49%) and *Chelidonium majus* L. herb (by 41%)

Conclusions. Among the studied medicinal plants, the most antioxidant properties under conditions of experimental gingivitis in rats showed extracts of of *Quercus robur* L. bark and *Urtica dioica* L. leaves. The data obtained are the basis for the development of new herbal remedies for the treatment of inflammatory periodontal diseases.

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Aloe as promising object for the creation of new drugs

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The search for drugs based on herbal raw materials is currently relevant. This allows long-term safe use of herbal drugs, determines their pronounced therapeutic effect, and also allows to minimize possible negative reactions while maintaining high effectiveness.

Aloe extract is a medicinal product wich contains complex of active biological substances that have antimicrobial, anti-inflammatory, choleretic and adaptogenic action. Aloe vera have an antimicrobial effect, inhibits the reproduction of various microorganisms in the oral cavity, like S. mutans, S. sanguis, A. viscosus and C. Albicans. The study of the clinical properties of aloe vera demonstrates significant reduction in gingivitis after using mouthwash wich contains this medicinal plant. Aloe drugs have anti-inflammatory and analgesic effects. Aloe is a powerful biogenic stimulant, Aloe juice is used in curing diseases such as: gastritis, gastroenteritis, enterocolitis, chronic colitis, also used in acute and chronic purulent diseases. It is also used for curing pharyngitis, stomatitis and any inflammations of the oral cavity. Aloe extract performs function of a biogenic stimulator, accelerates regeneration processes.