prevent it is to use interactive techniques. And the development of telecommunications technology encourages us to improve medical technology.

The aim of this study was to evaluate the manifestation of soliton in bone tissue, relevance in a preclinical study using ANDROID technology in the use of endoscopy and medical navigation during surgery to maximize the preservation of bone tissue.

An experimental surgery on dental implantation was performed in the laboratory on the bone specimen of a dead animal (piglet under 6 months) with further registration of the influence of physical factors on the periosteum in the implant area. Phantom implants (real analogue: D = 3.5mm; L = 6.0 mm) were used for this purpose. While planning the laboratory experiment, it was assumed that uncontrolled pressure (traumatic stimulus) on the periosteum occurs during surgery, which becomes a pathogenic destructive factor.

To control the movement and positioning of the implant, we used our own method using a navigation module (Ukrainian patent   68641), which was integrated with a mobile phone on the platform "ANDROID" via a micro-USB port (2x7) type B ("Navigator UK-A"). The receiver of the device is fixed rigidly relative to the bone specimen. The positioner is integrated with the tip of the device, the movement is fixed at the conditional point of the implant. The smartphone, on the screen of which the operation is monitored, is conveniently fixed in the holder (clamp to the car panel). We compared the results of the experiment with the results obtained in the experiment with navigation systems integrated with a desktop computer running the "WINDOWS" OS via a USB port (Navigator UK-A).

With deviations from 25 to 5 angular minutes, the accuracy (positioning) is not less than 10%, with smaller deviations it falls to 18%. The gap of up to 0.1-0.5 mm between the periosteum and the implant platform is boundary. At the same rotational force in the area of the implant platform, the pressure on the bone tissue increases disproportionately, and at some value is destructive. Uneven deformation of adjacent bone structures was found. Comparing experiments, the results are comparable, the difference in data rate is not subjectively determined.

For visual examination, an endoscope installed on the platform "ANDROID" was used. In 22% of cases, manifestations of the process of deformation of the bone layer, the manifestation of soliton in bone tissue, not visualized by conventional observation were found. The efficiency of endoscopy by the suggested method was 92%. The use of the ANDROID platform in medical navigation and endoscopy systems is relevant in connection with the development of telecommunication technologies.

Statistical analysis of the data confirmed the effectiveness of our original method during the sinus lifting procedure, namely, confirmed the dependence of a successful completion of the operation and a positive dynamics in the postoperative period from the selected method. The use of an advanced method of radiovisiography and a modified sensor allowed to detail the bone architecture of the adjacent soft tissues from 44.8% to 100%. ± 1.5% and differentiate adjacent soft tissues, including atrial ones - 67.1 ± 6%; reduce the exposure by one order of magnitude - 0.08s ± 8%, according to X-ray image of the device.

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VISUAL OBSERVATION OF THE EFFECTIVENESS OF THE COMPOSITE MIXTURE OF DRUGS WITH ANTIOXIDANT AND ANTIMICROBIAL ACTION ON NECROTIZING ULCERATIVE GINGIVITIS
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The study was aimed to determine the effectiveness of the developed treatment regimen, which included applications of a mixture of ointments of thiotriazoline, zinc oxide, and 0.05% solution of chlorhexidine bigluconate, on the healing process of ulcerative lesions of the maxillar process mucosa in experimental animals. We used the data of visual observation to assess the course of the pathological process as a criterion of evaluation.

The study was conducted on 18 rabbits. The model of necrotizing ulcerous gingivitis was obtained in animals by chemical burns. Experimental preparations were applied to the damaged gum area 2 times a day in 2 hours after feeding the animals at an approximate dose of 200 mg. The nature of the course of experimental ulcerous - necrotic gingivitis was investigated on the 3rd, 5th, 7th and 10th days of the healing process.

Observations of the simulated ulcer of the maxillar mucosa were daily performed, the wound was photographed in time according to the scheme of the experiment. The criteria for evaluating the effectiveness of local treatment were the timing of elimination of perifocal inflammation, hyperemia, infiltration of the edges of the lesion, cleaning the surface of necrotic tissue, the beginning of the marginal epithelialization, and the time of its completion.

The first phase proved to be the most effective for application - the phase of acute inflammation, in which there was a significant and the greatest reduction in the course and a faster beginning of the next stage of the pathological process. In the next two phases (purification and the beginning of epithelialization) the difference was almost the same and significantly smaller compared to the control group, but their size was inferior to the indicators of the first phase. The least effective was the use of the developed complex in the phase of active anabolic phenomena, where this percentage difference is noticeable, 1.85 times inferior to its greatest results during the entire observation time, indicating a slight inhibition of synthetic processes with regular application to the damaged area.

Analyzing the obtained data on the effectiveness of the developed complex of drugs, it can be noted that in all periods of ulcerative necrotic gingivitis there was a positive difference between the experimental and control groups: the completion of each phase of the disease in treated animals came faster comparing to the untreated animals.

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ORAL MICROFLORA AS A MAIN RISK FACTOR IN THE DEVELOPMENT OF DENTAL CARIES IN CHILDREN
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Dental caries has been the undisputed leader among all dental diseases since ancient times. The key to its development, regardless of age, is the microflora of the oral cavity. Most epidemiological studies have shown that high level of cariogenic microorganisms in the oral cavity was associated with a high prevalence of dental caries.

The aim of the research is to assess the microbial risk factor for caries of temporary teeth by determining the titer in the oral cavity of the main cariogenic microorganisms.

We examined 73 children aged 6 living in Bukovina. To determine the level of intensity of dental caries, the RIC index was used (Leus PA, 2009). The titer of cariogenic microflora was determined by the CRT bacteria kit (Ivoclar Vivadent, Liechtenstein) according to the manufacturer's instructions. The degree of probability of the obtained results was statistically assessed.

As a result of our research, it was found that the intensity of caries of temporary teeth was 3.78 ± 0.32 points, which corresponded to the average level. When determining the concentrations of Streptococcus mutans and Lactobacillus salivarius, we found a probable increase in the titer of colonies among children with different levels of caries intensity compared to dentistically healthy children. At a low level of caries intensity of the vast majority (55.55%) of children established (<104) CFU of streptococci. For the average level of caries intensity, the most characteristic is the number of colonies of microorganisms with a concentration (105-106) of CFU in 57.14% of the examined children. In the case of a high level of caries intensity, (> 106) CFUs of streptococci were sown in 46.67% of children and (105 - 106) CFUs of streptococci in 33.33% of children. Regarding lactobacilli, the low level of intensity of dental caries is characterized by the concentration (<104) of CFU in 44.44% of the examined children. Under the conditions of medium level, a half of the