testosterone), participates in the formation of a full and adequate immune response, ensures normal brain function, improves memory, mental performance, ensures normal growth and development, prevents oxidative cell damage. It has pronounced antioxidant properties, is involved in the metabolism of fatty acids, vitamin A. It is involved in maintaining the health of bones, skin, hair and nails.

With a lack of zinc in the body are the following processes: impaired growth, including in utero (reduced linear growth and body weight), disorders of the immune system (with a lack of zinc is an increased susceptibility to pneumonia, diarrhea, etc.), pregnancy complications zinc deficiency, premature birth, fetal malformations), macular degeneration (with age, the amount of zinc in the retina decreases, which is also a prerequisite for deterioration of central vision), zinc deficiency enhances tumor growth and can lead to infertility, anemia and skin diseases.

This element is contained in the following products: animal origin (oysters, shrimp, herring, mackerel, beef liver, poultry, milk, cheese, eggs), vegetable (pumpkin seeds, sunflower, legumes, mushrooms, oatmeal and buckwheat, walnut walnuts, garlic, cauliflower and cabbage, asparagus, potatoes, beets, carrots) and in fruits (apples, pears, plums and cherries). Zinc can also be taken through drugs, and in the pharmacy it can be purchased as a dietary supplementing (Zinc K & Health (15mg zinc) tablets №60; Zinc Active tablets №100; Zinc Pharmacom tablets 0.25g №80; Zinc tablets 15 mg №30).

Conclusions. The most important thing for us now is to strengthen our immune system. In the fight against Covid-19 you need to have strong immunity. Doctors and scientists are still researching vitamins and minerals to boost immunity, but we can already see that the combination of the two keywords "Covid" and "zinc" alone has about a hundred publications. Clinical studies are still ongoing, but it has been proven that zinc is an effective immune booster and can help fight Covid-19.

DETERMINATION OF EARLY HEALING FEATURES OF THE OINTMENT WITH LIPOPHILIC EXTRACT OF CHINESE POPLAR BARK ON THE PEO BASIS ON THE MODEL OF PLANAR SKIN WOUNDS OF RATS

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Introduction. Wound healing and wound infection is the oldest medical problem, which remains unresolved to this day. Purulent-necrotic soft tissue diseases are one of the leading surgical diseases. Patients with purulent-inflammatory diseases are 35-45%, and postoperative purulent complications occur in 24-30% of cases. The armed conflict in eastern Ukraine, which began in 2014 and later escalated into a form of hybrid warfare, has led to the actualization of combat surgical trauma for both the military and the national health care system.

Important for the impact on the leading links in the pathogenesis of the wound process are drugs for topical use – antiseptics and antibacterial agents, enzyme preparations, sorbents, agents that promote repair and epithelialization. The results of many scientific studies confirm the reduction of side effects of antiseptic drugs while maintaining therapeutic efficacy in the composition of mild drugs – ointments, creams, gels.

While treating the wounds of various etiologies when the reparative regeneration is slowed down for some reason, it is necessary to prescribe medications that accelerate this process. The

object of the pharmacological study was an ointment from lipophilic extract of Chinese poplar bark on the PEO basis, which was developed at the Department of Pharmacognosy under the guidance of Professor V. M. Kovalev.

Aim. To study the wound-healing effect of the ointment with lipophilic extract of Chinese poplar bark on the PEO basis on the model of planar skin wounds of rats.

Materials and methods. The studies were carried out on 18 white nonlinear rats with a weight of 180-200 g. Depilated areas of the skin of the back of rats were treated with 5% alcohol iodine solution and planar wounds with a diameter of 3.0-3.1 cm^2 were reproduced under aseptic conditions under ether anesthesia. After wound modeling, animals of the 1st group were under control (without treatment). For seventeen days, animals of the 2nd group were treated with the "Wundahyl" ointment and animals of the 3rd group with the ointment with lipophilic extract of Chinese poplar bark. The area of the wounds was measured daily until complete healing. Clinical observations were performed daily.

Results and discussion. The average rate of regenerative processes is characterized by a decrease in the area of the wound and the final time of healing. On the fourteenth day of the study, the rate of healing of planar skin wounds of rats treated with the ointment with lipophilic extract of Chinese poplar bark was 38.9 renewable units/day, "Wundahyl" ointment – 10.1 renewable units/day, and for animals without treatment (control pathology) this index corresponded to 7.3 renewable units/day. Complete healing was observed on the fifteenth day of the study.

The analysis of the obtained results on the model of planar cut wound showed that the ointment with lipophilic extract of Chinese poplar bark on the basis of PEO has the greatest efficiency among the studied means. Complete wound healing in this group was observed on the fifteenth day. At the same time, in the group of animals where the ointment "Wundahyl" was used, the epithelization of wounds was 50.1%, respectively, and in the group without treatment (control) - 16.7%.

The advantage of ointment with lipophilic Chinese poplar extract over the comparison drug – ointment "Wundahyl" is due to the peculiarities of the action of PEO-base. PEO bases - hydrophilic bases obtained by fusing solid and liquid polyethylene oxides; neutral, non-toxic, with prolonged use does not macerate the skin, easily releases drugs, is not a medium for the development of microorganisms. When using soft drugs based on PEO, after 20 minutes the therapeutic concentration of active substances is provided, which is maintained for 48 hours. PEO bases are biologically related to tissues, mix with the contents of the wound, promote the rejection of necrotic tissues and the active evacuation of wound contents into the dressing, due to the high osmotic activity of polyethylene oxides. In this case, polyethylene oxides lose the role of "passive carrier" and become active components of the drug system, causing its dehydrating effect, which is ten times higher than 10% sodium chloride solution in strength and duration.

The dehydrating effect of PEO-base also extends to microbial cells, reducing their bioactivity and resistance to active substances dozens of times. PEO bases become active penetrants of active substances into the wound tissue, where microbes are localized, bind wound exudate, clean the wound in a short time (2-3 days).

Conclusions. While treating the planar skin wounds of rats, the ointment with lipophilic extract of Chinese poplar bark on the PEO basis has shown an outstanding wound-healing efficiency – 3.7 times higher than when using the "Wundahyl" ointment and 5.0 times higher than indices under control.