PERSPECTIVES FOR THE USE OF MEADOWSWEET IN VETERINARY MEDICINE

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Meadowsweet (Filipendula) or Meadowsweet is a genus of perennial grasses, that has at least 16 species that grow in the temperate zone of the Northern hemisphere.

Meadowsweet (Filipendulaulmaria (L.) Maxim.). Medicinal properties of meadowsweet (meadowsweet) are used by people for more than 400 years. This plant was described by the European herbalist and botanist D. Gerard in 1597 and Nicholas Culpepper in 1652. The use of labaznikis recognized not only by folk, but also by traditional medicine. It is included in some formulations of the drugs of conventional medicine. In Russia, tavolga was engaged in V. I. Dubin. He recommended the use of meadowsweet for shingles, herpes, flu, ARI, in the complex treatment of viral hepatitis and pancreatitis [1].

About meadowsweet you can hear these words: "meadowsweet 40 diseases cures". There is a belief that the meadowsweet was called a labaznik by hunters because it served them as a shelter-a labaz - to track down ducks.

Medicinal use of meadowsweet due to high (up to 300 mg%) content of ascorbic acid, tannins, salicylic acid and its derivatives. Also, traces of coumarins, phenolic compounds, fenolglikozidy, flavonoids, chalcones. Labaznik flowers contain essential oil (0,2-1,25%) with a strong characteristic smell of honey shade, the main component of which is salicylic aldehyde [2].

Ascorbic acid contained in meadowsweet is involved in the biosynthesis of corticosteroid hormones, which are responsible for adaptive reactions of the body. It stimulates immune responses: participates in the production of lymphocytes and interferon, promotes the synthesis of antibodies, and increases reactivity. Due to the vitamin C, the body activates the production of phagocytes, which destroy viruses and bacteria, because it is a stabilizer of the lysosomal

membranes of phagocytes. In addition, the vitamin increases the sensitivity of bacteria to lysozyme.

Tannins of meadowsweet cause a weak astringent effect, and together with gaulterin act antimicrobially. Haultain acts upon the thermoregulation; it causes a diuretic and diaphoretic effect. It accelerates granulation and epithelization of ulcers and wounds. Diterpene alkaloids (sporamin and spiration) are allocated from seeds and roots of Filipendula. Their effect is similar to camphor and caffeine, but the use does not cause an increase in blood pressure. Spermineis assumed to protect brain cells from oxygen starvation.

Flavonoids are the substances of polyphenolic nature that protect plants from adverse environmental factors, and perform similar functions in animals. Flavonoids are powerful antioxidants that prevent the development of oxidative stress in cells where metabolism is disrupted by the action of toxic Pro-oxidants. Once in the body, they are involved in numerous processes of cell signaling, gene expression, various metabolic processes, and protect the body from the introduction of parasites and infection.

In general, meadowsweet is used as a hemostatic, astringent, anti-rheumatic, antipyretic, diuretic and diaphoretic. In veterinary medicine, it is also used as a vitamin, antiseptic and anti-inflammatory agent for diseases of the hooves of horses. The beekeepers also love the meadowsweet. They believe that if you rub it with grass and flowers hives, the bees will be less sick and bring more honey. In veterinary medicine, the roots of labaznikare used as an antihelminthic agent. It is also used for gastrointestinal diseases in animals. The literature also describes the antiviral effect of labaznik, in particular against the flu virus. A 20 % tincture of roots has a pronounced antibacterial effect.

Our goal is to study the effect of the infusion of meadowsweet in broiler chickens on the indicators of natural resistance. To conduct experiments on the principle of analogues, 2 groups of broiler chickens were formed at the age of 21 days, 12 heads in each group:the 1st group– the control one that did not receive the drug, the 2nd group – the experimental one, who received an infusion of meadowsweet at a dose of 1,0 ml per head 1 time a day for 21 days individually orally in the form of an infusion of 1:10.

Analyzing the state of natural resistance of broiler chickens by humoral protection factors, we noted a stimulating effect on the indicators of bactericidal and lysozyme activity of blood serum. There was an increase in bactericidal activity of blood serum and lysozyme activity of blood serum by 5-8 % (P<0,05) compared to the control group.

Examining the phagocytic activity of white blood cellswe noted a significant increase by 5% (P<0,05). The phagocytic number and phagocytic index were also slightly higher compared to the control group.

Meadowsweet has had a stimulating effect on the factors of natural resistance, which makes possible to recommend it to increase the overall resistance of the body in viral and bacterial infections.

References. *1. Krasnov E. A., Avdeeva E. Yu. Chemical composition of plants of the genus Filipendula / / Chemistry of plant raw materials. 2012. No. 4. - P. 5-12. 2.Lipnitsky, S. S. Phytotherapy in veterinary medicine / S. S. Lipnitsky. - Minsk: Belarus, 2006. – 286 p.*

THE EVALUATION OF ANTIBIOTIC RESISTANCE DEVELOPMENT TO AZITROMYCIN IN SALMONELLA ENTERICA

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Currently, antibiotics – the substances that inhibit the growth and vital activity of animal and human pathogens – have become widespread. Almost a century has passed since the beginning of an era of antibiotics, and over this period, they have saved millions of lives. However, the long-term use of various groups of antibiotics has led to the resistance development in microorganisms [1, 2, 4]. In modern science, the antibiotic resistance is a big topic for discussion as penicillin-resistant strains and, moreover, penicillin-dependent microorganismswere discovered [2, 3]. There is a need to study the rate of formation of microbial resistance to