

**MORPHOLOGICAL INDICATORS OF BLOOD IN THE TREATMENT OF
PURULOUS-NECROTIC PROCESSES IN THE TOES OF COWS WITH
DIFFERENT METHODS**

Bobokhan Yallaboevich Nuriddinov
Senior Teacher

Hakim Bagoevich Niyazov
Scientific Supervisor, Doctor of Veterinary Sciences, Professor
Samarkand State Veterinary Medicine, University of Livestock and Biotechnology

Abstract

In the treatment of various purulent-necrotic processes in the finger area of cows, 25 ml of catazal immunostimulator is injected into the vein once every 48 hours for a total of three times, 10 ml of 0.5% novocaine and 4 ml of lincomycin are mixed intramuscularly and oxytetracycline + streptocide + iodoform (In order to accelerate the absorption of Demixidine in the ratio of 4:4:2, when Demixidine stimulators are used in a certain rate and quantity, the erythrocyte in the blood increases by 8.3% and the amount of hemoglobin by 19.4%, and the number of leukocytes by 17% and the sedimentation rate of erythrocytes by 13.5%. decrease, reduces inflammatory processes, strengthens regeneration processes and shortens the duration of treatment.

Keywords: breed cow, catazal, lincomycin, oxytetracycline, streptocide, iodoform, demyxidine, morphological parameters, erythrocytes, leukocytes, hemoglobin, erythrocyte sedimentation rate.

Relevance of the Topic

In the following years, physiological changes of an adaptive nature in the body of imported cows and parturient cows were studied on the example of hematological indicators, and in the days after giving birth, the metabolic processes of cows were more disturbed than those in the body [5, p. 106-111]. According to the authors, leukocytosis due to the increase in the amount of total protein in the blood, the violation of protein metabolism due to the increase in the concentration of creatine phosphate kinase, the violation of mineral metabolism due to the decrease in the amount of calcium and phosphorus, and the increase of basophils and eosinophils in the blood of cows during calving due to adaptation to new conditions were recorded.

According to the information of some authors, purulent pododermatitis of the heel part of the hooves in large horned cattle includes complex destructive-dystrophic necrotic processes.

These pathological changes cause tissue damage and regeneration, tissue cell respiration disorders, microcirculatory pathways exceed permeability, creating a favorable environment for the reproduction of microorganisms. The formation of tumors of various genesis causes the inflammatory process to progress to a chronic stage [6; pp. 123-132].

As a result of A.V. Izdepsky's research, it was determined that aseptic serum synovitis is caused by a decrease in antioxidant activity, an increase in peroxidation of lipids in both blood serum and synovial fluid and a decrease in the antiradical protection of these substrates [3; pp. 37-38].

Some authors say that in the treatment of purulent-necrotic injuries of the fingers, it is important to find a means to quickly clean the surface of the wound from purulent exudate, to eliminate the inflammatory process early, to create a healthy granulation in the wound, as well as to ensure the transition from the inflammatory-dystrophic phase (hydration) to the regenerative phase (dehydration) becomes important [8; p.170, 4; pp. 161-1654].

In the treatment of purulent pododermatitis in Holstein-Friesian cows, vetosporin probiotic was used in addition to the treatment composition. As a result of research, when a complex bacteriostatic powder dressing was used in diseased cows that drank vetosporin, the animals healed the purulent-necrotic process in the toe area and accelerated the regenerative recovery by 4-5 days, the pathological process Vetosporin has been found to reduce the number of treatments from 3 times to 2 times compared to sick cows that were not given [1; p. 20-21, 2; p. 122].

Laboratory examinations of cows infected with pododermatitis revealed a decrease in the amount of hemoglobin in their blood to 96 g/l, the number of erythrocytes to 4.7 g/l, obvious leukocytosis, and an increase in the sedimentation rate of erythrocytes. According to the author's data, hematological indicators in large horned animals with hoof dermatitis after treatment-prophylactic measures with the use of the new drug increased the proportion of neutrophils with rod nuclei to 7.4 ± 0.6 , eosinophils to 5.2 ± 0.7 , and monocytes in blood parameters. It was found to decrease to 6.4 ± 0.6 . [7; p. 19].

The purpose of the study. It consists in developing methods of improved treatment based on the use of different methods of treating cows with various purulent-necrotic processes in the finger area in dairy farms, based on the use of a certain amount and order and studying the changes in morphological indicators in the blood.

Research object and methods. Scientific examinations and experiments were conducted at the "Veterinary Surgery and Obstetrics" department of the Samarkand State University of Veterinary Medicine, Animal Husbandry and Biotechnology, at the "Farovon Grand Invest" livestock farm of the Okdarya district of the Samarkand region and at the laboratories of Samarkand regional hospitals.

As a result of clinical examination, 15 cows with various purulent-necrotic processes in the finger area were isolated from the "Farovon Grand Invest" livestock farm of Okdarya district. The animals of the first experimental group had their fingers and hooves cleaned and clipped, and pus and dead tissues were surgically removed, then they were bathed with 5% formalin, 10 ml of 0.5% novocaine and 4 ml of Lincomycin were mixed and injected intramuscularly, and oxytetracycline + To accelerate the absorption of streptocide + iodoform (4:4:2 ratio), Demyxidine stimulator was applied, then the powders were sprayed on the pathological focus and tightly bandaged.

The animals of the second experimental group were cleaned and clipped toes and hooves, and pus and dead tissue were surgically removed, then bathed in 5% formalin, after the pus discharge stopped, Catazal was injected intravenously from the immunostimulator, 25 ml, once every 48 hours for a total of three times. , 10 ml of 0.5% novocaine and 4 ml of Lincomycin were mixed and injected into the muscle, and to accelerate the absorption of oxytetracycline + streptocide + iodoform (4:4:2 ratio), Demiksidin stimulating agent was applied, then the powders were sprayed on the pathological focus and tightly bandaged.

The animals of the third control group were treated with conventional methods, i.e., the toes and hooves were cleaned and clipped, and pus and dead tissue were surgically removed, then bathed with 5% formalin, mixed with 0.9% saline solution and injected intramuscularly with bicillin-5 and oxytetracycline + streptocide + iodoform powder (4:4:2 ratio) was sprayed on the pathological focus and bandaged.

Before and during the experiment, the animals were clinically examined, and their blood morphological parameters were checked twice before the experiment, and on the 5th, 10th, 15th and 25th days of the experiment after the start of the treatment.

Analysis of the obtained results During the treatment of the pathological processes in the fingers and hooves of the experiment, along with the clinical physiological indicators, the morphological and biochemical indicators of their blood were checked in all cows. The analysis of the obtained data showed that the first group of animals used the generally accepted methods of mixing 10 ml of 0.5% novocaine with 4 ml of Lincomycin intramuscularly and Demiksidin stimulant to accelerate the absorption of oxytetracycline + streptocide + iodoform (4:4:2 ratio) the amount of erythrocytes in the blood increased from the fifth day, that is, on the 15th day of the experiment, it increased by 3.5%, and by the end of the experiment, the increase compared to the initial values was 6.3% ($r < 0.05$).

The amount of leukocytes in the blood of cows in this group decreased from the 10th day of the experiment and was 6.7%, and at the end of the experiment, it decreased by 21.4% ($p < 0.05$). The change in the amount of hemoglobin was similar to the change in the number of erythrocytes, it increased by 8.7% on the 10th day of the experiment ($r < 0.05$), then its maximum increase was observed on the 25th day of the tests, that is, its amount increased by

16.9% ($r < 0.05$) was shown to increase. In the cows of the first experimental group, the beginning of morphological changes in the blood was manifested at the beginning of the experiment, in which the sedimentation rate of erythrocytes decreased by 3.7% on the 5th day compared to the beginning of the experiment, on the 15th day of the experiment it decreased by 12.2% and on the 25th day by 13.2%. done

In addition to the generally accepted methods, after the cessation of pus discharge, Catazal immunostimulator was administered intravenously to accelerate the absorption of Lincomycin with 0.5% novocaine and Oxytetracycline + Streptocide + Iodoform (in a 4:4:2 ratio). when the blood was checked, it was noted that the following changes were manifested in them

The number of erythrocytes increased by 2.1% on the 5th day, 4.2% on the 15th day and by the end of the experiment, it was found to increase by 8.3% ($p < 0.05$) compared to the initial values.

The number of leukocytes began to decrease from the 5th day of the experiment and was observed to decrease by 11% on the 10th day and by 17% compared to the initial values at the end of the experiment. The amount of hemoglobin increased by 5.6% on the 5th day of the tests, and on the 15th and 25th days of the experiment, it was 15.5% and 19.4% ($p < 0.05$), respectively, compared to the initial values. The erythrocyte sedimentation rate decreased by 3.4 and 11.8% respectively on the 5th and 10th day of the experiment in the animals of the second experimental group, it decreased again during the experiment, and at the end of the experiment it was shown to decrease by 13.5% compared to the initial values.

It was noted that the amount of erythrocytes in the blood of the animals of the third control group increased by 6% only on the 10th day of treatment, then showed a slight decrease and wave character, and increased by 4% on the 15th day of the experiment and by 6% at the end of the experiment. The number of leukocytes decreased during the experiment, on the 25th day of treatment, a decrease of 19.8% was observed compared to the initial values. Hemoglobin concentration also increased by 11.1% ($p < 0.05$) on the 10th day of the experiment, and by the end of the experiment, its amount began to decrease and was 108.8% ($p < 0.05$) compared to the initial values. The sedimentation rate of erythrocytes in the blood of animals of the third experimental group decreased slightly during the experiment and showed a wavy character, compared to the beginning of the experiment, it was 4.5% on the 5th day of the experiment, 2.2% on the 10th day of the experiment, and 6.7% on the 15th day. decreased by 9.9% ($p < 0.05$) compared to the initial indicators at the end of the experiment.

In order to confirm the difference in the clinical signs in the animals of the three experimental groups during the treatment, when we analyzed the hematological parameters of the blood, the rapid recovery of the morphological parameters of the blood in the animals of the first and second groups, especially the increase in the amount of erythrocytes and hemoglobin, indicates a rapid increase in oxidation-reduction processes in the damaged tissues or in the body as a

whole, leukocyte decrease in the number and rate of erythrocyte sedimentation during the experiment indicates recovery of the pathological process and stimulation of the reticuloendothelial system in animals of this group. Thus, the treatment lasted on average 18 days in the first group of animals with interdigital dermatitis, 16 days in the second group and 20 days in the third group and 21 days in the first group of animals with soft heel phlegmon, 18 days in the second group and 24 days in the third group. and in animals infected with purulent pododermatitis, it lasted 16, 14 and 18 days, respectively. However, it is worth noting that the complete recovery of functions in the fingers and hooves was observed long after the end of the treatment.

Summary

1. In the treatment of various purulent-necrotic processes in the finger area of cows, 25 ml of catazal immunostimulator is injected into the vein once every 48 hours for a total of three times, 10 ml of 0.5% novocaine and 4 ml of lincomycin are mixed intramuscularly and oxytetracycline + streptocid + iodoform (in the ratio of 4:4:2) when Demixidine stimulants are used in a certain rate and quantity, the erythrocyte in the blood increases by 8.3% and the amount of hemoglobin by 19.4%, and the number of leukocytes by 17% and the sedimentation rate of erythrocytes by 13, A decrease to 5% was characteristic.
2. In the treatment of various purulent-necrotic processes in the finger area of cows, the use of catazal immunostimulator, 0.5% novocaine, lincomycin oxytetracycline, streptocide, iodoform, and Demixidine in a certain rate and quantity reduces inflammatory processes, enhances regeneration processes, and shortens the duration of treatment.

List of used Literature

1. Gimranov V.V., Giniyatullin I.T. Features and methods of using probiotics in purulent-necrotic processes in cattle. Topical issues and ways to solve them in veterinary surgery. Proceedings of the International scientific-practical conference dedicated to the 80th anniversary of the birth of Professor E.I. Veremey. Vitebsk, VGAVM, 2019. -p. 20-21.
2. Zhubantaeva A.N. Projection-anatomical substantiation of methods for the treatment of foot rot in sheep. // Diss... doctoral phil. (PhD). Kostanay, 2014. - 122 p.
3. Izdepsky A.V. The state of antioxidant protection of the synovial fluid of young cattle with aseptic arthritis. Topical issues and ways to solve them in veterinary surgery. Proceedings of the International scientific-practical conference dedicated to the 80th anniversary of the birth of Professor E.I. Veremey. Vitebsk, VGAVM, 2019. -p. 37-38.
4. Lyashenko P.M., Maryin E.M., Ermolaev V.A. Morphological changes in the vessels with purulent ulcers of crumbs in cattle. Proceedings of the International scientific-practical

<https://conferencea.org>

- conference "Agrarian science and education at the present stage of development: experience, problems and ways to solve them." Ulyanovsk, UGSHA, 2009. -p. 161-164.
5. Markova D.S., Baizuldinov S.Z., Kalyuzhny I.I., Alekhin Y.N. Hematological parameters in cows with metabolic disorders during the period of adaptation. Bulletin of the Kursk State Agricultural Academy. No. 4. Kursk, 2018. -p. 106-111.
 6. Maryin E.M., Lyashchenko P.M., Sapozhnikov A.V. Clinical and pathomorphological characteristics of purulent pododermatitis in cattle // Bulletin of the Ulyanovsk State Agricultural Academy. -2015. -#4. -p.123-132.
 7. Pisarenko V.F. Development and testing of a therapeutic and prophylactic agent for the development of infectious digital dermatitis in cattle. Abstract // Diss...cand. vet. Sciences. Belgorod, 2014. - 19 p.
 8. Simonova L.N., Kontsevaya S.Yu., Simonov Yu.I. Histological indicators of purulent-necrotic lesions of the hooves in cattle. Bulletin of the Bryansk State Agricultural Academy, 2013. 3 6. -p. 23-25.