



ACADEMICIA
An International
Multidisciplinary
Research Journal
 (Double Blind Refereed & Peer Reviewed Journal)



DOI: 10.5958/2249-7137.2021.01488.9

ETIOLOGY, CLINICAL AND CLIMATE CHANGES IN MASTITIS IN CITIES

Mengliev Gayrat Azzamovich*; Kuziboeva Ugilbu Imomalikizi**

*Associate Professor,
 Candidate of Veterinary Sciences,
 Tashkent Branch of Samarkand Veterinary Medicine Institute,
 UZBEKISTAN

**Base Doctoral Student,
 Tashkent Branch of Samarkand Veterinary Medicine Institute,
 UZBEKISTAN

ABSTRACT

The article analyzes the results of research on the main types, causes and characteristics of mastitis in cows: the main types, and the clinical signs of mastitis in cows. In cows with catarrhal mastitis, udder does not grow normally, with one, or sometimes two or three quarters of the wound being injured. When the udder is palpated, no changes occur at the onset of the disease. Currently, there are two types of teaching in science about the origin of mastitis. The founders of the first doctrine claim that all forms of mastitis are caused by staphylococci, streptococci, colon sticks and other microorganisms. The animal has been characterized by a rise in body temperature and a loss of appetite. Milk yields are fluid, indicating general fatigue, decreased appetite and increased body temperature in the animal.

KEYWORDS: Serum, Catarrhal, Fibrin Us, Purulent, Hemorrhagic, Specific, Clinical, Subclinical Mastitis, Creation, Measles

INTRODUCTION

In farms the Republic milk yield caused by an average of 15-20%, milk fat content is 0.8-1%, and cow's life expectancy is reduced by 2-3 years; the incidence of measles in young children due to the consumption of milk from sick cows suggests that mastitis is a socially significant disease. Therefore, research on developing and improving methods for identifying, diagnosing, treating, and preventing mastitis among high-grade cattle is relevant.

Currently, there are two types of teaching in science about the origin of mastitis. The founders of the first doctrine claim that all forms of mastitis are caused by staphylococci, streptococci, colon sticks and other microorganisms. The founders of this theory relied on the presence of microorganisms in milk milked from the infected udder [4].

In cows with mastitis, the founders of the second doctrine believe that the infection is caused by the sterilization of the teat cups through the teat canal to the udder; Decrease in lysozyme in antibacterial properties of milk; breach of feeding rules and regimen, rapid transfer from one type of diet to another, feeding on moldy and rotten animals; Dairy feeding for animals, late training for milking, feeding on cows that do not meet zoological requirements on cold and rainy days, no bedding; Mechanical effects of udder and ulcers in the udder are the main etiological factors [2,6,8].

According to reports, the udder becomes swollen and red during serum mastitis, and the injured part of the udder becomes relatively enlarged, painful, and increases the local temperature. The lymph nodes in the udder are enlarged, and the pain is palpable. The milk supply of an animal is reduced and milk contains water-containing consistency and fragments of casein. An animal with whey mastitis may report general fatigue, decreased appetite, and increased fitness. This type of mastitis is usually mild and limited to inflammatory edema [2,7].

In cows with catarrhal mastitis, udder does not grow normally, with one, or sometimes two or three quarters of the udder being injured. When the udder is palpated, no changes occur at the onset of the disease. During 3-5 days, there are no signs of clogging of the udder in the udder and in the udder, and there is no significant change in the overall state of animal [4].

Bloody mastitis is exacerbated by catarrhal or serum inflammation of the udder. Therefore, there are three possible causes of this type of mastitis and can cause bloody mastitis.

The disease usually spread to about half of the udder. At the same time, the damaged part of the udder is very painful; [9,10].

In catarrhal inflammation of the alveoli, the damaged quarter or some parts of the udder (slices of the udder) increase and do not decrease even after milking. Inflammation of the mucous membrane causes narrowing of the mucous membranes. In severe cases, the animal's appetite is almost gone.

According to NV Pritikin (2003), udder inflammation in cows often develops as subclinical mastitis, 21.4% at milking, 24.6% at weaning, and 23.4% at birth. found in cows. Clinically present mastitis is present in 4.6-6.2% of cows [6].

In cases of catarrhal-purulent mastitis, cows experience general weakness, apathy, loss of appetite, hypotension of the pancreas, mucous membrane, redness of the udder, inflammation of the udder, leakage of catarrhal-purulent exudation, except when the temperature is high. Signs of pulse acceleration were observed. Red blood cell counts of hemoglobin and total protein decreased in the blood of diseased cows, and leukoformula shifted to the left. It is also known that catarrhal-purulent mastitis is accompanied by a decrease in the natural resistance of the body and the activity of the immune system [7,8,9,10].

The purpose of the study. Investigation of the etiology, characteristics and clinical signs of mastitis in productive cows in cattle farms.

Object and methods of research. Investigations In 2017-2018, animal husbandry in Dairy Cows in Samarkand Region, including the distribution of mastitis, serum (catarrhal, cataract, purulent and fibrin mastitis) and clinical features, has been conducted to investigate and care for cows and livestock. Compliance with milking technology was analyzed.

The composition, natural status and degree of the cow's natural requirement were studied.

In order to study the morbidity of dairy cows, clinical studies were performed using common methods, as well as the condition of the udder, breast parenchyma and udder. Milk samples were collected from 12 cows and tested with 5% dimastin using a MKP-1 milk plate to determine whether cows were infected with latent mastitis.

Erythrocytes and leukocytes in the blood (Goryayev count), hemoglobin (Salihemometer), glucose (colored reaction with ortho-toluidine), serum oxytocin protein (IP Kondrachin method), total calcium (VP Vichev, LV Karakashov method), inorganic phosphorus (VF Koromiyslov, L. Kudryavseva method of pulse), leukoformula.

Analysis of the results. In cows with suspected mastitis in 12 cows, the milk concentration in 7 heads of cows was unchanged (negative negative), partial change in 3 cows (test uncertain), and presence of milk clots in 2 cows (test) subclinical mastitis in 16.7% of cows. A total of 12 cows have been diagnosed with mastitis. Of these, 50% (6 heads) were infected with cerebral mastitis, 25% (3 heads) with catarrhal mastitis, 17% (2 heads) with catarrhal prudent mastitis, and 8% in cows with fibrin mastitis.

In the diagnosis of mastitis, it is important to examine the type and extend of cows feeding, and the satisfaction of the body's essential nutrients and requirements for biologically active substances.

Dairy cows are kept in groups (60-40 heads per group). Feeding is carried out three times a day, using irrigation water pipes. Cows are generally kept in one place, lacking active mats and sunlight.

It was found that the diet of silage-concentrate type. The diet contains 30 kg (56.6%), 10 kg of senescence (17.2%), 2 kg of alfalfa (8.6%), 4 kg of coned residue (6.9%), 4 kg of wheat grem (6,6).9%), 5 kg of corn (8.6%), 2 kg sunflower (3.4%), 1 kg soybean (1.7%), 100 g vegetable oil, 150 g chocolate, 150 g salt, 200 g of primex, the total dietary intake is 24.0 feed units.

The macronutrient portion of the diet is characterized by an inadequate proportion of calcium and phosphorus deficiencies. The ratio of phosphorus to calcium was 0.38 (2.0: 1).

The literature suggests that excess of protein and juicy foods in the diet can lead to changes in the water-salt ratio in the body, accumulation of excess water, formation of swelling in the lower limbs, including the udder, and the development of mastitis. [2].

The overall clinical characteristics of the mastitis cows are shown in Table 0.

Clinical characteristics of cows infected with mastitis in the experiment				
T\P	number	Body temperature, °C	Breathing rate, in 1 minute	Heart rate, 1 minute
1	0912	41,2	63	111
2	0943	40,8	48	102

3	0825	41,0	73	120
4	0453	40,9	55	110
5	0943	39,9	43	93
6	0923	41,8	46	86
	M±m	40,9	54,7	103,7

Some morpho-biochemical indices of blood in the cows of the experimental group were characterized by an increase in hemoglobin content up to 13.0 g / l and red blood cells to 8.24 million mcl. The increase in the serum leukocyte average to 14,500 / Å³l can be explained by the presence of purulent inflammation in the respiratory system in the early stage of mastitis. (Table 1).

In the dairy cows in the experiment, the blood clotting rate was increased by 4.0 minutes and the rate of erythrocyte sedimentation increased to 0.8 hours /mm. These indications indicate that catarrhal purulent mastitis in cows undergo autointoxication due to blood clotting and oxygen definitely in the body.

TABLE 1 INDICATORS OF COWS BLOOD IN THE EXPERIMENT

Indicators of cows blood in the experiment						
T\P	Inv. Number	Gemoglobin, г/л	Eritrosit, МЛН/МКЛ	Leukocyte, thousand/ml	Blood clotting rate, minutes	Erythrocyte sedimentation rate, 1 hour / mm
1	0771	99,4	8,24	12,8	2,5	0,5
2	0912	110,2	7,49	13,0	3,0	0,8
3	0943	98,5	6,55	12,0	2,5	0,5
4	0825	112,6	5,14	11,5	2,3	0,6
5	0453	130,4	7,26	14,5	2,5	0,5
6	0943	110,5	7,49	13,6	2,0	0,6
7	0923	108,6	5,59	12,0	3,5	0,5
8	0513	121,2	7,16	12,1	4,0	0,5
	M±m	108,6	6,7	12,7	2,8	0,5

Order to investigate the condition of the organism in cows, leukoformula where studied in blood samples taken from cows infected with mastitis (Table 2).

In cows infected with mastitis, leukoformula ratios are mainly increased by to 2.3% of basophils (normal -0-0.2%), by 21% of the base neutrophils, by 2% in young neutrophils, by 17% in monocytes and by 1% in eosinophils. It was characterized by a reduction of up to 7%.

TABLE 2 INDICATORS OF LEUKOFORMULA IN COWS WITH CATARRHAL PURULENT MASTITIS (%)

Indicators of leukoformula in cows with catarrhal prulent mastitis (%)								
№	Inverter.№	Basophils	Eosinophils	neutrophils			Lymphocytes	Monocytes
				Sticks core	Segment core	Age		
2	0912	2,1	1	21	16	2	59	11
3	0943	1,7	2	2	20	1	35	10
4	0825	1,8	1	2	12	1	47	17
5	0453	2,3	1	2	19	1	57	12
6	0944	1,9	2	6	7	2	40	10
8	0513	1,8	3	9	11	-	50	10

When the clinical status of cows infected with catarrhal mastitis was investigated, the udder usually did not increase in the first day, with two or three quarters of the udder injury. On the third day of the disease, when the udder was damaged and a deep palpation was observed, the creep in the milk tank was deleted. The animal has been characterized by a rise in body temperature and a loss of appetite. Milk yields are fluid, indicating general fatigue, decreased appetite and increased body temperature in the animal. Compared to a healthy quarter of the udder, milk loss from the injured portion was reduced, the udder was larger, and the milk was not reduced even after milking, and the udder was tightened when the base of the teat sucked.

In dairy cows with catalysis-purulent mastitis, the udder is characterized by increased lymph nodes, general weakness, rapid breathing and heart rate, and a rise in total body temperature to 41Â°C. The injured part of the udder is enlarged, swollen, the local temperature is high, the colorless parts of the skin are reddened, palpable, and there is severe pain during milking.

Particularly high water content of the injured part of the udder was colored milk with reddish tinge.

In one cow infected with fibrin mastitis, the injured portion of the udder is enlarged, tightened and painful, and when the plams are compressed, the udder parenchyma.

Conclusion. 1. Dairy cows with mastitis and condition of milk keeping, non-compliance with ration, excessive protein and juicy foods in the diet etiological factors.

2. Mastitis is common among productive cows, of which 50% (6 heads) are seriummastitis, 25% (3 heads) catarrhal mastitis, 17% (2 head) catarrhal pus, and 8% (1 head). cows infected with fibrin mastitis.

3. The pathogenesis of mastitis is characterized by an increase in erythrocytes and hemoglobin concentrations in the blood due to condensation of the blood, a reduction in the number of leukocytes due to the more rapid normalization of the blood and the lowering of the organism.

4. Leukoformula in cows infected with mastitis are mainly characterized by up to 2.3% of basophils, up to 21% of base nuclei neutrophils, 2% of young neutrophils, 17% of monocytes and 1% of eosinophils, and 7% of segment nuclei neutrophils.

REFERENCES

1. Vasilev V.G. A device for a syringe for the administration of medicinal solutions for mastitis. *Veterinary medicine*, 1999.-N^o 7. S. 36-39.
2. Kondrakhtin I.P., Levchinko V.I. *Diagnosis and therapy of animals*. M.: Publishing LLC Aquarium-Print, 2005. S.-652-664.
3. Koba I.S. Improvement of complex pharmacotherapy in acute postpartum mastitis of bacterial-mycotic etiology. *Autoreff. diss. sci. 2009*. S-28-33.
4. Limirenko A.A. Improving the etiotropic treatment of animals with mastitis in cows. *Stavropol 1999*.
5. Logovinov D.D. Pervertion and treatment of mastitis in cows// *Obstetrics, gynecology, artificial insemination and diseases of the mammary gland animals*. L., 1985.- S.14-16.
6. Nikitina V.Ya., Mirolyubov MG et al. *Veterinary obstetrics, gynecology and reproduction biotechnology*. Moscow Kolos 1999.
7. Rubsov V.I. Treatment of cows with serious and catarrhal mastitis. *Veterinary Medicine*, 1999.No. 1. - S.36-37.131.
8. Subbotin V.M., Subbotin S.G., Alexandrov I.D. *Modern medicines in veterinary medicine*. Phoenix Rostov-on-Don 2000.
9. Shishkova V.P. *Veterinary Encyclopedic Dictionary*. Ed. Moscow "Soviet Encyclopedia" 1981.285-286 pp.
10. Yampolsky B.V., Togushev A.N. *Diagnosis of mastitis in cows // Adapt. Technology*, 1991. S. 77-79.