Table 2 shows the statistical analysis results of individual genotypes of tested polymorphisms in relation to daily milk yield in subsequent lactation.

Table 2. Daily milk yield in subsequent lactation.

Effect	Lactation I		Lactation II		Lactation III		Lactation IV		Lactation V		Lactation VI		total	
	DMY	SD	DMY	SD	DMY	SD	DMY	SD	DMY	SD	DMY	SD	DMY	SD
C2 AD	*1,36	* 0,53	0,39	0,82	0,59	1,07	0,16	1,62	0,21	0,76	0,11	1,08	-0,46	0,45
C2 DOM	*2,00	* 0,87	2,23	1,33	2,49	1,88	1,00	1,18	1,26	1,27	-0,17	1,79	0,56	0,71
C9 AD	*-1,12	* 0,58	-3,40	1,51	-2,66	2,23	-4,08	3,15	-2,78	3,46	-3,08	3,86	*-3,28	* 0,79
C9 DOM	0,00	0,00	*-4,52	* 1,65	-4,09	2,45	-3,54	3,31	-1,01	3,83	-1,66	3,72	*-3,49	* 0,86
C2AxC9D	*3,19	* 1,21	-3,50	3,24	-3,87	4,06	0,06	6,64	4,03	2,38	0,14	2,66	0,62	1,81
C2AxC9D	0,00	0,00	-3,15	3,53	-4,02	4,56	-0,93	6,11	0,00	0,00	0,00	0,00	0,42	1,95
C2DxC9A	*4,38	* 1,98	-0,71	5,24	-4,14	7,31	2,57	2,88	6,54	3,88	2,21	4,33	4,47	2,82
C2DxC9D	0,00	0,00	2,06	5,73	-1,67	8,09	0,00	0,00	0,00	0,00	0,00	0,00	4,97	3,06

DMY – daily milk yield

Conclusions

Based on the conducted research, it can be concluded that there are associations between polymorphisms of selected genes and mastitis resistance in Polish Holstein-Friesian cattle. In view of the above, genetic selection may contribute to reducing the incidence of mastitis in dairy cows in the future. Reduction of morbidity contributes to the reduction of high costs incurred in connection with a decrease in milk production, treatment of the disease or the need to early culling sick animals. Research can improve animal welfare by selecting for increased resistance to mastitis.

DIAGNOSIS AND COMPLEX THERAPY OF PODODERMATITIS IN DOGS

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Introduction. Today, the problems of skin diseases remain relevant due to their wide distribution, polyetiology, discussion of many issues of pathogenesis, insufficient level of effectiveness of the proposed prevention schemes, which in most cases do not take into account the mechanisms of initiation, development and progression of such pathology. Pododermatitis, which relate to diseases of the distal extremities in small pets, are considered relevant.

Goal: to determine the effectiveness of comprehensive diagnosis measures and treatment of allergic pododermatitis in dogs.

Material and methods of research. Diagnostic measures for allergic pododermatitis in dogs were based on anamnesis data, the results of the primary clinical examination - general and site lesions, as well as laboratory tests.

In order to differentiate from diseases of another etiology, if necessary, trichoscopy, microscopy of skin scrapings, cytological and histological studies were carried out.

In some cases, contrast radiography was used to determine the direction and size of fistulas.

Results of research. As a result of the studies, it was found that the analysis of the non-contagious diseases spread in dogs indicates a significant prevalence of the skin and digestive system diseases, which are 20.75 and 20.56%, respectively. About 10% of patients diagnosed with musculoskeletal pathology - 10.60% and digestive - 9.85%, somewhat less often - cardiovascular - 8.64% and urinary - 7.30% systems.

Analysis of pododermatitis etiological factors indicates that among the primary factors in a third of cases, the disease is caused by allergic reactions (32.17%). In addition, relatively often its cause is trauma (23.48%) and a reaction to a foreign body in the tissues of the distal extremities (16.52%). In about 10% of patients, pododermatitis is caused by a neoplastic process (9.57%). In a

small number of cases, the etiological factor is: autoimmune diseases (2.61%), chemical and thermal burns (1.74%), as well as low temperatures (0.87%). Among secondary factors, 13.04% of dogs were found to have an influence on the development of pododermatitis of bacterial microflora. Also, our studies have established age-related susceptibility to pododermatitis in dogs. In particular, the peak incidence falls on 5-7-year-old dogs - 31.31% against the background of a gradual decrease in 7-9-year-old individuals to 17.39%, older than 9 years - to 10.43%. The high frequency of disease registration is characteristic of animals aged 3-5 years (25.22%), and the minimum probability of its development is in young patients (5.22%). The incidence analysis of dogs for pododermatitis indicates the presence of a pronounced seasonality of their development. For instance, its maximum level is set in the summer (47.83%), the minimum - in the winter months (12.17%). In the spring, the frequency of interdigital cysts pododermatitis detection in dogs is 25.22%, in the autumn - 14.78%.

Analysis of breed susceptibility to pododermatitis allowed us to establish the following patterns. Most often this disease is diagnosed in English Bulldogs (20.00%), Shar Peis (14.78%), Boxers (13.91%) and Labradors (12.17%). At the same time, within 10%, the level of pododermatitis registration was diagnosed in Cane Corso dogs and German Shepherds (9.57% each) and Pekingese (8.70%). It should be noted that in 11.30% of cases they are diagnosed in Mestizo dogs. Depending on etiological factors, the symptoms of the disease differ significantly, but this pathology is characterized by some common signs. In particular, the limbs are affected by pododermatitis, which causes difficulty in movement. Lameness is recorded. As the process progresses, several limbs are involved, which significantly impairs the ability to move. Thus, the general clinical symptoms of the disease are: lameness, hyperaemia of the skin between the fingers and on the footpads, dry skin, the presence of wounds and ulcers on the interdigital spaces skin and on the footpads, the appearance of blisters with purulent or bloody contents.

Considering etiological factors and pathogenesis of the disease, clinical testing of two treatment regimens for the most common pododermatitis, allergic, was developed and conducted.

To study the effectiveness of various therapeutic regimens for allergic pododermatitis in dogs, two groups of animals (control and experimental) were formed, 15 patients in each.

Animals of both groups were prescribed Synulox in combination with the complex vitamin agent Incombivit as antibacterial therapy. Additionally, the control group dogs were treated with the corticosteroid-sparing agent Execan in combination with the biostimulant Placevit, as well as with the topical spray Allergostop. Treatment of patients in the experimental group was carried out using drugs of general action: Apoquel, which refers to selective inhibitors of Janus kinase (JAK), Kurtikol - an inhibitor of pro-inflammatory cytokines, as well as a local drug Sanoderm.

The effectiveness of therapeutic measures for allergic pododermatitis was evaluated according to clinical criteria. In particular, the dynamics of changes in the disease symptoms were determined; treatment duration; number of cured animals; the relapses proportion and complications, the form of their course (mild, moderate, severe); remission period, as well as complications that reduce it.

Conclusions. Skin diseases in dogs are among the most common in the structure of non-contagious pathology, accounting for 20.75% of all cases. Among them, dermatitis was recorded in most cases (38.16%).

In the nosological profile structure of non-contagious etiology dermatitis, in 14.88% of cases, pododermatitis was diagnosed, which is characterized by lesions of the distal extremities skin, in particular the interdigital space, caused by allergic reactions in 32.17% of patients.

For allergic pododermatitis, age and breed susceptibility were established against the background of the disease pronounced seasonality: most often it is recorded in the summer (47.83%) in English Bulldogs (20%), Shar Peis (14.78%), Boxers (13.91%) and Labradors (12.17%), aged 5 to 7 years (31.31%).

The inclusion of allergic pododermatitis in the complex scheme of the drugs combination Apoquel, Kurtikol and Sanoderm, compared with Execan, Placevit and Allergostop, increased the therapy effectiveness by 1.4 times (from 53.33 to 73.33%), reduced the number of unsatisfactory results by 3 times (from 20 to 6.67%) against the background of reducing the treatment duration by

1.6 times, reducing the recurrence level by 1.8 times with their predominant course in mild form and prolonging the remission period by 1.6 times.

ADVANTEGES IN RT-PCR METHOD APPLICATION TO ASSESS INTESTINAL BARRIER FUNCTION IN BROILER CHICKENS

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Relevance. Current technology of industrial poultry farming requires the study the intestinal barrier function as a crucial task for an animal health. In last decades, the requirements of intensive poultry farming have posed several challenges related to the health of broiler chickens. One such problem is the disruption of the intestinal barrier function, leading to compromised immunity and the spread of infectious diseases among birds. Additionally, this disruption has a negative impact on feed efficiency, resulting in financial losses. Investigating this issue will enable the evaluation of the effectiveness of various products and additives used to enhance the birds' immunity and productivity. Morphological parameters and the composition of the intestinal microbiota are key indicators of intestinal health. However, considering the latest scientific advancements, molecular markers of intercellular adhesion in the intestine, as well as markers of cytokine production and programmed cell death, are increasingly being used to assess the intestinal barrier function. Therefore, the utilization of molecular biological methods, such as RT-PCR, for evaluating the intestinal barrier function in broiler chickens is currently more relevant and practical.

The aim of our study was to characterize the intestinal barrier function in broiler chickens via measuring the expression levels of genes encoding molecular markers using RT-PCR.

Materials and Methods. Immunoblotting and real-time reverse transcription polymerase chain reaction (RT-PCR) are two methods that can be used to assess the intestinal barrier function in broiler chickens. Immunoblotting is a method that utilizes antibodies to detect the presence of specific proteins in a sample. This method is useful for evaluating the expression of proteins associated with the intestinal barrier function, such as microvilli and tight junctions. Immunoblotting is a valuable technique for determining the presence of specific proteins in a sample and assessing the expression of proteins associated with the intestinal barrier function. However, it has a few limitations. Firstly, immunoblotting requires the use of specific antibodies, which can limit the number of proteins that can be used if it is unknown which proteins are specifically associated with the intestinal barrier function. Additionally, the specificity of immunoblotting relies on the quality of antibodies, so the formation of specific antibody-antigen complexes can be problematic and lead to false results. Secondly, immunoblotting typically requires a large amount of protein material, which can limit its application in situations where sample volumes are limited. Thirdly, immunoblotting can be sensitive to protein degradation during sample