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A SPECIAL ANTIPYROPLASMOSIS PROPHYLACTIC AGENT DERIVED FROM THE PIROPLASMA BEGIMINUM UZ STRAIN IN CATTLE WITH LARGE HORNS

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Annotation: A method for manufacturing a radio vaccine against bovine pyroplasmosis has been developed. While studying the reactogenic properties, weak virulence of the vaccine material irradiated at a dose of 35 krad was established, while immunogenicity remain edup to 6 monthsafter immunization.
Keywords: pyroplasmosis, immunogenicity, cattle, 35 krad, immunization, Piroplazma bigeminum uz strain.
Summary: It was developed a method of producing a vaccine against piroplasmosis in large horned livestock using a strain of Piroplasma bigeminum uz in the study of the reactogenic and immunogenic properties of a set of weak virulence vaccine material irradiated in dose 35 krad, with immunogenicity lasting up to 6 months after immunization.
Key words: Piroplasmosis, reactogenicity, immunogenicity, large-horned livestock, 35 krad, immunization, Piroplasma bigeminum uz.

Relevance of the topic On the territory of our republic, diseases like large-horned mole piroplasmidosis are common, causing great economic damage. Reducing pyroplasmosis diseases, especially as a result of reducing cattle piroplasmosis, can prevent the death of moles and a decrease in their productivity. In non-infectious diseases, cattle piroplasmosis is the most dangerous and is transmitted through disease-calling ixod mites, namely the boophilus calcaratus mites, which are common in various regions of the Republic. The researchers improved methods of preventing cattle piroplasmosis with the help of chemicals and special preparations. But these methods have low efficiency and are considered expensive. In the prevention of piroplasmosis, a special prophylactic agent has not been developed until this period. Therefore, the creation of a special prophylactic agent for the prevention of piroplasmosis and its introduction into practice are one of the urgent tasks of veterinary scienceand practice. At the same time, the creation of an inoculation tool based on local strains against piroplasmosis is one of the most urgent tasks.

Purpose:

1. Development of the technological process of a special prophylactic agent made from the piroplasma beginum uz strain;
2. Study of the reactogenicity and immunogenicity property of a special prophylactic agent made from the piroplasma beginum uz strain;
3. Testing in the conditions of production of a special prophylactic agent made from the piroplasma beginum uz strain;

1. In order to develop the technological process of a special prophylactic agent made from the piroplasma beginum uz strain, one head mole was damaged under the expremental conditions by the pyroplasma bigeminum strain, when clinical signs and parasitemia appeared in the blood, 400 ml of blood

was taken from a venous blood vessel. Then the blood was purified from various ballasts (leukocyte, thrombocyte, fibrin, plasma) 3 times by trypsinization method at 3000 ob/min in centrafuga. In order to maintain the vital activity of parasites, 30% blood serum from a healthy mole, 10 and 40% glucose and 10% glycerine as a cryoprotector were added to the purified mass. The mixture was thoroughly mixed. After that, the finished mixture was placed in 5 sterile vials and irradiated with gamma rays (cobalt-60) using the gube - 6000 device: 1-vial - 18; 2-vial - 25; 3-vial-35; 4-vial - 50; 5-vial - 75 with krad doses for 30 minutes. The finished motor material was cryoconservated in liquid nitrogen (-1960 C). In this method, a radiobiological vaccine was prepared Verification of the harmlessness of the prepared tool was carried out in white mice using generally accepted methods. As a result of the observational work carried out, it was found that the material of the tool is harmless. 2 the study of the raectogenicity property of a special prophylactic agent made from the Piroplasma begiminum uz strain was carried out in each group from 3 heads in Group 5 cattles. The 1st group of cattles in the experiment-18, 2nd group-25, 3rd Group-35, 4th group - 50 and 5th Group-75 krad were infected by injecting 1.0 ml under the skin of moles with irradiated motor material in doses. Clinical and parasitological examinations were carried out on experimental goods for 21 days.As a result of the tests carried out, clinical signs of piroplasmosis were manifested on the 9th - 10th days after infection in the cattles of the 1-2th group, and on the 9th-12th days in the moles of the 3rd Group, clinical signs of piroplasmosis were not manifested, the body temperature changed partially (39.8-39.90 C), pyroplasma was found, which indicates that piroplasmas do not have a haiotic activity (table 1).

The results of the study of the reactogenicity property of a special prophylactic agent made from the pyroplasma bigeminum uz strain.

group	**Number of cattel of head**	**Immunization method**	**results**	**Reactogenicity**
1	3	Irradiated at a dose of 18 krad	Clinical signs of piroplasmosis and parasitemia manifest	available
2	3	Irradiated at a dose of 25 krad	Clinical signs of piroplasmosis and parasitemia manifest	available
3	3	Irradiated at a dose of 35 krad	Achene was found to have fleas, a partially elevated trunk temperature, and a boron parasite based on his clinic symptoms.	Not available
4	3	Irradiated at a dose of 50 krad	Clinical symptoms and parasitaemia were absent.	Loss of life activities of parasites
5	3	Irradiated at a dose of 75 krad	Clinical symptoms and parasitaemia were absent.	Loss of life activities of parasites

As a result of the studies, it was discovered that the reactogenicity property of a vaccine material irradiated in an amount of 18-25 krad is highly reactive, 35 krad has no reactogenicity property, and 50-75 krad has no

parasite activity in the vaccine material whenir radiated. In order to determine the immunogenicity property of a special agent, it was carried out on the previously immunized goods of Groups 3-4-5. After the 6th month after immunization, all three rice cattles were infected with blood from a mole that was spontaneously infected with piroplasmosis. Clinical and parasitological examinations were carried out during the 21st day. As a result of the tests carried out, on days 8–9 after infection, clinical signs of piroplasmosis were manifested in moles of 4–5 groups, and the body temperature rose to 40.8–40.90 °C. It was found that 2–3% of erythrocytes were damaged by piroplasmas in blood smears from peripheral blood vessels. But clinical signs of piroplasmosis did not appear in the third group of cattles and piroplasmas were not found in the blood smear.

Thus, it was found that the immunogenicity property of the irradiated immune material at a dose of 35 krad has a duration of up to 6 months.

3. Test work on the conditions of production of a special prophylactic agent made from the Piroplasma beginum uz strain during 2017 in Jizzakh region, Sh. Umed-B, owned by Rashidov district, and J. Pirmatov, was carried out on farms.

Of the available goods on the "UUmed-B" farm, 40 heads were obtained as experience and 25 heads as control. And on the farm "Pirmatov," 48 heads of existing goods were obtained as experience and 34 heads as control. Cattles in the experiment were injected under the skin in the amount of 1 ml with a tool (immunized); no means were injected into the controlled moles.

As a result of the research carried out, 9 heads (36% of the total) of goods during the season were in the controlled goods on the "Umed-B" farm "J. In the controlled cattle on the farm "Piromatov" during the season, 10 heads (29%) of moles were infected with piroplasmosis. And among the moles in the experimental group, the disease was not observed, which indicates a high immunogenicity of a special agent. (Table 2).

Production of a special prophylactic agent made from the Pyroplasma beginum uz strain against piroplasmosis test results in conditions.

Farm	**group**	**Number of cattel of head**	**Vaccination method**	Keeping a cattle condition	**Results**
F.H.Umed-B.	1-experienc e	40	1 ml, under the skin	Cattles with experience and control are fed on "cold water" pastures under the same conditions.	A cattle infected with piroplasmosis was not observed.
	2-control	25	not vaccinated		9 head of cattle infected with piroplasmosis (36%

FhJ.Pirmatov	1-experience.	48	1 ml, under the skin	Cattles with experience and control are fed on "cold water" pastures under the same conditions.	A cattle infected with piroplasmosis was not observed.
	2-control	34	not vaccinated		10 head of cattle infected with piroplasmosis (29%)

SO 9 heads (36%) of the goods on the "Umed-B" farm, which were under control as a result of the use of a special tool in production conditions, "J. Of the cattle on the "Pirmatov" farm, 10 heads (29%) were infected with piroplasmosis, while among the moles in the experiment, the disease was not observed.

So, it was found that the preventive effectiveness of a special anti-piroplasmosis remedy is for a period of up to 6 months.

Summaries

1. The production technology for a special prophylactic agent made from the Piroplasma beginimum uz strain has been created.
2. A special prophylactic agent material made of radiated Pyroplasma beginimum uz strain has no reactogenicity property, the immunogenicity property is 6 months, and there is no parasite activity in the irradiated motor material in a dose of 50-75 krad.
3. As a result of the use of a special prophylactic agent made from the Piroplasma beginimum uz strain under production conditions, 9 heads (36%), and "J" in the controlled farm goods "Umed-B," And in the cattle on the farm, "Pirmatov," 10 heads (29%) of moles were infected with piroplasmosis; no disease was observed among the experimental moles. It was found that the prophylactic effectiveness of a special prophylactic agent made from the Piroplasma beginimum uz strain is high.

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