

THERAPY OF TEYLERIOSIS OF CATTLE FOR MEAT DIRECTION IN AKMOLA REGION

Bayniyazov Aslan Abdukhanovich

Associate professor the department of veterinary sanitation. Seifullin Kazakh Agro Technical University Kazakhstan, Nur-Sultan

Zhanabaev Asylbek Abdrashitovich.

Senior lecturer of the department of veterinary medicine. Seifullin Kazakh Agro Technical University Kazakhstan, Nur-Sultan.

Kemeshov Zhomart Omibecovich.

Senior lecturer of the department of veterinary sanitation. Seifullin Kazakh Agro Technical University Kazakhstan, Nur-Sultan.

Turalieva Nursipat Srazhaddinovna.

1st year of master's degree Seifullin Kazakh Agro Technical University Kazakhstan, Nur-Sultan.

Abstract: *The article describes the results of an experiment on the scientific topic 2P / 21 during the outbreak of theileriosis of cattle in Akmola region in June-August 2021.*

Using the methods of epizootological, clinical and microscopic studies, 43 individuals of young Aberdino-Angus and Kazakh white-headed breeds under the age of two years spontaneously ill with theileriosis were isolated, of which two groups were formed: an experimental group of 22 and a control group of 21 heads.

The animals of the experimental group were treated according to the developed scheme with the use of specific (buparvaquone and oxytetracycline) and nonspecific drugs. The cattle of the control group were treated according to the previously proposed method using butalex and avicyclin.

Keywords: *teileriosis, cattle, buparvaquone, oxytetracycline*

ТЕРАПИЯ ТЕЙЛЕРИОЗА КРС МЯСНОГО НАПРАВЛЕНИЯ В АКМОЛИНСКОЙ ОБЛАСТИ

Байниязов Аслан Абдуханович

Доцент кафедры ветеринарной санитарии. Казахский агротехнический университет им. Сейфуллина Казахстан, г. Нур-Султан

Жанабаев Асылбек Абдрашитович.

Старший преподаватель кафедры ветеринарной медицины. Казахский агротехнический университет им. Сейфуллина Казахстан, г. Нур-Султан.

Кемешов Жомарт Омибекович.

Старший преподаватель кафедры ветеринарной санитарии. Казахский агротехнический университет им. Сейфуллина Казахстан, г. Нур-Султан.

Туралиева Нурсипат Сразжаддиновна.

1 курс магистратуры Казахский агротехнический университет им. Сейфуллина Казахстан, г. Нур-Султан.

Аннотация: В статье описаны результаты эксперимента по научной теме 2П/21 во время вспышки тейлериоза крупного рогатого скота в Акмолинской области в июне-августе 2021 года.

Методами эпизоотологического, клинико-микроскопического исследования выделено 43 особи молодняка абердино-ангусской и казахской белоголовой пород в возрасте до двух лет, спонтанно больных тейлериозом, из которых сформированы две группы: опытная – 22 и контрольная группа из 21 головы.

Животных опытной группы лечили по разработанной схеме с применением специфических (бупарвакон и окситетрациклин) и неспецифических препаратов. Скот контрольной группы лечили по ранее предложенной методике с использованием буталекса и авициклина.

Ключевые слова: тейлериоз, крупный рогатый скот, бупарвакон, окситетрациклин.

Introduction.

Prevention of infectious and invasive animal diseases is considered the most important condition for the creation of profitable livestock farming.

Theileriosis is a vector-borne disease of cattle, which causes enormous economic damage to the livestock industry in Kazakhstan, [1]. The acute form of the disease, which is more common in young animals, causes functional disorders, exhaustion and death of livestock. Young cattle aged from one month to two years are infected with theileria [2].

For the treatment of cattle theileriosis, complex schemes are used with various agents with theileriocidal activity, such as bigumal, delagil, metronidazole, oxytetracycline, etc. [3]. However, the problem of developing effective technologies for the treatment of this parasitosis of livestock remains an urgent task of modern practical veterinary medicine.

The purpose of scientific work.

The present work aimed to test the effectiveness of a new treatment scheme for theileriosis of cattle in the field in the Akmola region.

Material and methods

The experiment was carried out during the period of an enzootic outbreak of the disease in a herd of cattle in Akmola region in June-August 2021. The diagnosis for theileriosis was made in a complex way: on the basis of epizootological, clinical (on the increase of regional lymph nodes) data and microscopic examination of peripheral blood smears according to Romanovsky-Giemsa.

The experiment was carried out on 43 individuals of young cattle of Aberdino-Angus and Kazakh white-headed breeds up to two years old, spontaneously ill with theileriosis, of which two groups were formed according to the principle of analogues: experimental 22 and control – 21.

The animals of the experimental group were treated according to the following developed scheme: on the first day of treatment, 5% buparvaquone (1 ml / 20 kg intramuscularly), 20% oxytetracycline dihydrate (1 ml / 10 kg intramuscularly), 10% butaphosphamide (10-25 ml / animal intravenously), vitamin B12 solution (6 µg / kg intravenously), 20% caffeine sodium benzoate (0.04 ml / kg subcutaneously),

0.9% sodium chloride (400-2000 ml / animal intravenously), 10% -ascorbic acid (0.25 ml / kg intravenously), 10% -ketoprofen (0.03 ml / kg intravenously), 10-15 ml of hellebore tincture was administered orally with water.

On the second day of treatment, caffeine-sodium benzoate, sodium chloride, ascorbic acid, ketoprofen, hellebore tincture were prescribed; on the third day – buparvaquone, vitamin B12, caffeine-sodium benzoate, sodium chloride, ascorbic acid, ketoprofen and hellebore tincture, and on the fourth day, butaphosphani ascorbic acid was given in a dosage similar to the first day of treatment.

Therapeutic treatment of young cattle of the control group was carried out according to the scheme described earlier [4, 5], with the following sequence of drug administration: butolex (1 ml / 20 kg intramuscularly, 2 times with an interval of 48 hours); avicyclin (1 ml / 10 kg intramuscularly, once); 20% caffeine-sodium benzoate (0.04 ml / kg subcutaneously, 3 consecutive days); vitamin B12 (6 µg / kg subcutaneously, 2 times with an interval of 48 hours); 10% sodium chloride (0.5 ml / kg intravenously, 2 times with an interval of 24 hours); 10% -ascorbic acid (0.25 ml / kg intravenously, 2 times with an interval of 24 hours).

The animals were observed for 25 days. Clinical examination of the animals was carried out daily before and after treatment. The effectiveness of the drugs was taken into account by the disappearance of clinical signs of the disease, a decrease in body temperature to normal and the results of laboratory tests (the absence of theileria in smears from peripheral blood).

Results and discussion

Before treatment in animals in both groups, the body temperature was high and fluctuated within 39.0-41.5 ° C, parasitemia was 51-127 theileria in one field of view of the microscope (PMF). In cattle, an increase in regional lymph nodes, lethargy, disorders of the cardiovascular and digestive systems, lack of appetite, muscle tremors, and depression were observed.

After applying two treatment regimens, it was possible to maintain the livestock in both groups of animals. All young livestock in the experiment restored the initial clinical state inherent in the herd before the onset of the enzootic outbreak of theileriosis. However, the rate of recovery of the animals in the two groups took a different time period.

It should be noted that in the test group, already on days 9-11, the restoration of the general clinical state of sick animals was observed: body temperature was within normal limits, parasitemia was 2-5 parasites in the PZM, the cattle's appetite was good, and the condition was satisfactory. On the 15-18th day, only single parasitic elements of theileria were observed in the peripheral blood smears in the PZM of cattle, and on the 21-25th days the animals gained their initial weight, completely freed themselves from parasites and restored their health. So, this therapeutic regimen provided a relatively quick cure and restoration of the clinical status of diseased animals.

In the control group, the recovery process of animals took longer time: so on the 15-18th day, although the clinical condition of the cattle was satisfactory, the body temperature was normal, in blood smears parasitemia remained at the level of 4-9 parasites in the PZM, the cattle slowly gained live weight, and in 7 individuals general weakness was observed. On days 21-25, single parasites in peripheral blood

smears were detected in animals in this group, and 8 animals still had not restored their pre-treatment live weight. Thus, this treatment technology ensured the recovery of sick animals from theileriosis, but with a slow recovery (up to 25 days in severe cases) of the general clinical state of sick animals.

Conclusion

The tested scheme of treatment of cattle theileriosis using specific (buparvaquone and oxytetracycline) and nonspecific drugs is more effective in terms of recovery of clinical health and weight gain in animals than the method of disease therapy using butalex and avicyclin.

Bibliographic list

1. Kozhabaev M., Berdikulov M.A., Karataev Sh. The current state of the epizootic situation in cattle theileriosis in the south of Kazakhstan // Coll. KazNIVI. – T.LIII. –2007. – S.267-270.
2. Ashirbek A.A., Zhanabayev A.A., Mukhambetkaliev E.E. Treatment of Theileriosis in Cattle in the Turkistan Region // Current trends and successes in the fight against zoonanthroponosis of farm animals and birds. Collection of scientific papers based on the results of the international scientific and practical conference, Makhachkala, Caspian zonal NIVI – branch of the FANTS RD, 2020. – P.58-62.
3. Abdulmagomedov S.Sh., Aliev A.Yu. The effectiveness of delagil in cattle theileriosis // Veterinary pathology. – No. 3. – 2019. – P.21-25.
4. Berdikulov M.A., Usenbaev A.E., Zhanabaev A.A., Leader L.A., Bisengaliev R.M. participation. "Actual scientific and technical means and agricultural problems" Kemerovo, Kuzbass State Agricultural Academy. 2020 pp135-139.
5. Berdikulov M.A., Kozhabaev M., Karataev Sh.M. Method for treating cattle theileriosis. – Description of the invention to the innovative patent 2008/0991.1. – Committee on Intellectual Property Rights of the Ministry of Justice of the Republic of Kazakhstan. – 15.12.2010.– Byull. No. 12.