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Paper Authors: **Khakimov Sh , Salimov I.Kh**



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CASES OF INFECTIOUS NECROTIC HEPATITIS OF SHEEP IN SAMARKAND REGION

Khakimov Sh

Doctoral student

Salimov I.Kh

Supervisor Doctor of Veterinary Sciences Samarkand Institute of Veterinary Medicine

ABSTRACT: This report provides data on cases of registration of infectious necrotic hepatitis of sheep in some farms of the Samarkand region. Clinical signs and the course of the disease are given. Pathological changes and laboratory diagnosis of the disease are also given.

Keywords: Infectious necrotic hepatitis, atony, tachycardia, causative agent, Cl.novyi, restlessness, spasmodic movement, bloody-foamy outflow, gas, edema, swelling.

INTRODUCTION

An increase in the production of meat and other livestock products is associated with the cultivation of a healthy population of young sheep.

The problem of infectious necrotic hepatitis of sheep is one of the main tasks in the economic development of our country. Increasing attention to farm animals, their full-fledged feeding, increasing the efficiency of increasing the number of livestock and preserving young sheep, as well as the introduction of new technologies is the main task in improving livestock products. Infectious diseases and death of animals create serious obstacles in the production of livestock products and cause great economic damage to farms and reduce the profits of livestock breeding, and create a great obstacle to increasing the increase in the number of livestock. Among the diseases of farm animals caused by pathogenic anaerobes, infectious necrotic hepatitis of sheep, caused by Cl. novyi deserves special attention. This disease occurs in many countries around the world. In our country, necrotic hepatitis of sheep was not previously

differentiated from bradzot, and it causes great economic damage to sheep breeding, which consists of the death of sick animals, forced vaccination of animals in case of a disease in dysfunctional farms, as well as the cost of burning the corpses of those who died from infectious necrotizing hepatitis and mechanical and chemical disinfection of the area where the sick animal was kept.

Infectious necrotic hepatitis is more and more common in some farms of our Republic and causes great economic damage to the national economy.

To solve these problems, business trips were organized to the farms of the Samarkand region, they examined the area where sheep often graze, checked their watering place, that is, from where they drink water. We met with veterinarians, local residents and shepherds. We were interested in the issues of distribution, the number of diseased animals in previous years, the age of diseased animals, as well as the time of year when infectious necrotic hepatitis of sheep is most common. After identifying unfavorable points, they examined the area where animals and

their watering places often graze. To isolate the causative agent of infection, samples of feed, water, soil, and manure were obtained from these places. In cases of death of sheep, samples of pathological material from dead animals were obtained for laboratory diagnostics.

Material and research methods. The material for the study was samples of feed, water, soil, manure and pathological material from dead animals obtained from sheep farms in the Samarkand region, in which an infectious disease often occurred that led to the death of sheep. To identify the disease, the method of epizootological examination, as well as clinical, bacteriological and pathoanatomical research methods, was used. When conducting an epizootological examination of the disease, the main attention was paid to the incidence of animals, mortality among patients, the prevalence of the disease, seasonality, susceptibility of different animal species and duration. In a clinical study of more than 1600 sheep, attention was paid to the clinical condition of the animal, that is, to body temperature, pulse, respiration. As well as the behavior of the animal, the reception of writing, on the gait, on the configuration of the animal's body. For bacteriological examination, more than 500 samples of water, soil, feed, manure from animal grazing areas and, in some cases, blood from animals that were kept together with a dead animal, as well as pathological material (pieces of the liver, affected muscles and heart with blood) were used. From the drinking water of sheep and blood, crops were made on the MPB, MPA, MPPB (Kitt-Tarozzi medium) in a straight line and for the growth of cultures they were placed in a thermostat at 37-37.50C. The food was first crushed, then dissolved in warm saline water. The solution was filtered through 4 layers of gauze. The liquid was centrifuged at 3000 rpm for 10-15 minutes. From the upper part of the liquid with a sterile Pasteur pipette,

inoculations were made on nutrient media, and for the growth of cultures they were placed in a thermostat at 37-37.50C. Soil and manure samples were also dissolved in warm saline water. The solution was filtered through 4 layers of gauze and centrifuged at 3000 rpm for 10-15 minutes. From the upper part of the liquid with a Pasteur pipette, inoculations were made on nutrient media and they were also placed in a thermostat at 37-37.50C. By changing the turbidity of nutrient media and the formation of gas bubbles, the presence of pathogens of infectious necrotic hepatitis of sheep in these samples was determined. Smears were prepared from daily cultures, which, after Gram staining, were examined under a light microscope. Thus, the presence of pathogens of infectious necrotic hepatitis in the studied samples was determined. During the pathoanatomical examination of animal corpses, attention was paid to its age and fatness, to the state of the natural openings, to the swelling of the animal.

Research results. As a result of an epizootological survey of disadvantaged farms in the Samarkand region, it was determined that the disease was more common in summer and autumn, less often in winter and spring. The incidence was 5-10%, sometimes up to 25% of the total number of sheep. Mortality among sick animals was up to 100%. In some farms, the disease is widespread and there are several cases each year. Only sheep aged 8 months to 3 years were affected. The disease lasts from 12 hours to 2 days and ends in death.

In sick sheep, the condition is depressed, refusal to take feed and water. The chewing gum was discontinued, atony of the fore-stomachs was noted. They had a sharp increase in body temperature from 41.4 to 41.9 0C, tachycardia, pulse reached 110-120 beats per minute. Breathing is difficult and superficial 80-98 times / min. In some sheep, hypersensitivity,

restlessness, jerky forward movement and a quick malaise and a fall of the animal were observed. After the fall, after 20-30 minutes and in some cases after 10-12 hours, the death of the animal was observed. In some cases, the animals lie down and do not get up. Often found edematous swelling in the area of the intermaxillary space, neck and chest.

Pathological anatomical studies of 7 dead animals showed that all the dead animals were of average and above average fatness. Found bloody-foamy outflow from the nasal openings. All the corpses were swollen, had swelling resulting from the accumulation of yellowish liquid in the region of the intermaxillary space, neck and chest. The coat is easily pulled out, the skin is bluish-red. Hemorrhage in the subcutaneous tissue. Muscles are dark red to black in color. Regional lymph nodes were enlarged and hemorrhage was observed on the incision. A straw-colored liquid was found in the abdominal cavity, which, after opening the abdominal cavity, turns into a jelly-like clot. The scar has lumpy remnants and is strongly swollen. There are no food masses in the stomach. In the small intestine there is a large amount of gas and a small amount of food debris. The intestine is hyperemic and the mesenteric lymph nodes are enlarged in size and hyperemia and flabby consistency were found on the cut. Gas accumulation was also observed in the large intestine. The liver has a yellowish-gray color, small characteristic multiple necrotic foci from light gray to straw-yellow color are visible on the capsule, which are surrounded by a dark rim of irregular shape. The gallbladder is enlarged in size by 2-3 times and filled with thick bile. The kidneys are hyperemic and have necrotic foci. The spleen is slightly enlarged. A reddish-yellow liquid was also found in the chest cavity, which, on contact with air, turned into a jelly-like clot. The muscles of the heart are softened. The

appearance of the lungs was unchanged; on the incision in the lumen of the small bronchi, foamy mucus with an admixture of blood was observed.

During bacteriological examination More than 860 samples of water, soil, feed, manure and blood, as well as pathological material (pieces of the liver, affected muscles and heart) obtained from dead sheep in disadvantaged farms were examined by the bacteriological method. At the same time, crops were made on nutrient media: MPB, MPA, MPBB (Wednesday Kitt-Tarozzi). Crops were made according to the above mentioned method. By changing the turbidity of the nutrient media and the formation of gas bubbles, the growth of bacteria was determined and smears were prepared from them. They were Gram-stained and examined under a microscope. After isolating the microbial culture, they infected the most sensitive laboratory animals to infectious necrotizing hepatitis of guinea pigs. After infecting the guinea pigs, they were constantly monitored, during which clinical signs characteristic of infectious necrotic hepatitis of sheep were found. After the death of guinea pigs, a pathoanatomical autopsy was performed, smears were prepared from the imprints of the internal organs, and cultures were made on nutrient media. Thus, the presence of pathogens of infectious necrotic hepatitis of sheep in the studied samples and pathological material was determined.

Output. According to the results of the studies, infectious necrotic hepatitis occurs among the sheep of some farms in the Samarkand region. The obtained data on the course of the disease and clinical manifestation, as well as pathoanatomical changes in dead sheep, are characteristic of this disease. Isolation of the causative agent of infection, a bioassay on guinea pigs, re-isolation of the causative agent of the disease proves that infectious necrotizing hepatitis has a certain place among sheep.

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