
Scientific Analysis of Brucellosis - A Strongly Infectious Disease and its Prevention and Treatment

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Abstract: The article talks about dangerous diseases in cattle and their harmful side to the human orphan system, transmission and treatment.

Key words: Brucella, Brucella melitensis, Brucella abortus, serological reaction, allergic reaction, pasteurization.

INTRODUCTION

Brucellosis is a very dangerous chronic infectious disease. This disease affects all kinds of animals, including humans. The causative agent of brucellosis is brucella, and there are several types of it. The most dangerous types for humans are Brucella melitensis and Brucella abortus. The causative agent sheep type - b. melitensis is not found only in sheep products, but also in milk and meat products of cattle. and people get sick as a result of milk products being sold on the market without disinfection.

The specificity of the disease is many cases, such as aborted fetuses in animals, late separation of the placenta, emaciation, infertility in heifers, infertility, decreased productivity, damage to the testicles and seminal tract in male animals. is considered

DISCUSSION AND RESULTS

Brucellosis is a zoonanthroponosis, that is, a dangerous disease that can be transmitted from animals to humans. This disease can be transmitted from an animal to a person by infected milk, infected and contaminated meat and meat products, and sometimes by veterinary workers, workers of the leather industry, and workers of the veterinary laboratory, who have worked with an infected animal without following the rules of hygiene. Depending on the course of the disease and the type of infection, the disease manifests itself in different ways in people who have contracted the disease. For example:

The primary-latent (hidden) form is almost a state of health. With the weakening of the body's protective forces, it can turn into an acute-septic or chronic metastatic form. Sometimes there are microsymptoms: a slight enlargement of peripheral lymph nodes, sometimes an increase in body temperature to subfebrile indicators, increased sweating during physical exertion. The patient considers himself healthy and continues to work.

The acute-septic form is characterized by fever (39-40 °C), a wavy temperature curve, with large daily changes of the wrong (septic) type, repeated fever and sweating. A person feels good (when the body temperature is 39 °C and above, you can read a book, play chess, watch TV). General no other signs of intoxication are observed. It does not threaten the life of the patient, even without etiotropic treatment, it ends with recovery. All groups of lymph nodes are moderately enlarged, and some are tender. By the end of the first week, the liver and spleen are enlarged. In the general blood analysis, leukopenia, ECHT is not increased. The main difference is the absence of focal changes (metastases). Without antibiotic treatment, the duration of fever is 3-4 weeks or more.

Chronic forms sometimes bypass the acute form and develop suddenly, sometimes after some time after the acute-septic form. Clinically, primary and secondary chronic metastatic forms do not differ. The difference is the presence or absence of an acute septic form in the anamnesis. Clinic: long-term subfebrile fever, weakness, increased irritability, poor sleep, loss of appetite, reduced work capacity. Gross lymphadenopathy is soft, tender or painful during palpation. Small, very dense, painless, sclerosed lymph nodes (diameter 0.5-0.7 cm) are noted. The liver and spleen are enlarged. Against this background, damage to organs is determined, most often by the locomotor system, followed by the nervous system and the reproductive system.

Pain in muscles and joints, mainly in adults, polyarthritis, new exacerbation of the disease, other localized metastases are formed. Periarthritis, paraarthritis, bursitis, exostoses. Osteoporosis is not recorded. The joints swell, their mobility is limited, the upper skin has a normal color. Limitation of movement and deformations are associated with the growth of bone tissue. The spine is injured, most often in the lumbar region. Eriksen, Nakhlas, Larrey, John-Behr symptoms are determined. Myositis in damaged muscles. The pain is persistent, long-term, and their intensity is related to weather changes. With the help of palpation, more painful areas are identified, and painful intensities of various shapes and sizes are felt in the muscles. Fibrosis (cellulitis) is detected in the subcutaneous tissue of the lower leg, wrist, back and waist. The size is from 5-10 mm to 3-4 cm, soft, oval structure, painful or sensitive. Later, they may shrink, be completely absorbed, or undergo sclerosis and remain a small dense formation without pain for a long time.

Nervous system damage develops neuritis, polyneuritis, radiculitis. In rare cases, the central nervous system is damaged (myelitis, meningitis, encephalitis, meningoencephalitis) and they are long and painful.

Changes in the male reproductive system – orchitis, epididymitis, decreased sexual function. Salpingitis, metritis, endometritis in women. Amenorrhea is observed, infertility may develop. Abortion, stillbirth, premature birth, congenital brucellosis in children are often noted in pregnant women. The secondary-chronic form is the same. The difference between the secondary latent form and the primary latent form is that it often changes (repeats) to the manifest form.

Humans do not completely recover from brucellosis. In this disease, nasal immunity is observed, in which a person must constantly take immunity-boosting drugs and constantly monitor his health. 816 days, 40-45 days in cheese, 45-60 days in cheese, 18-20 days in chilled meat.

Prevention of brucellosis and carrying out systematic work in the veterinary system, ensuring the health of our people, and preventing various infectious diseases among people are also mentioned in detail in our legislation. In particular, it was adopted in a new version in accordance with the Law of the Republic of Uzbekistan «On Amendments and Additions to the Law of the Republic of Uzbekistan «On Veterinary Medicine» dated December 29, 2015 No. ORQ-397.

The above law provides detailed information about veterinary sanitary expertise work and activities in the Republic of Uzbekistan. In order to detect brucellosis in time, veterinary examination should be carried out once a year or twice every 6 months. In order to make a correct and accurate diagnosis, epizootological, bacteriological, serological and allergic examination methods are used. Aborted fetuses, amniotic fluid, fluids separated from natural openings, animal blood, and milk are sent to the laboratory to diagnose the disease.

Cattle with clinical signs of the pathogen are sent to compulsory slaughter.

The milk of cows with a positive result for brucellosis is boiled, and the fat obtained from the cream is burned and neutralized. The milk of all cows on the farm where the disease was detected is pasteurized at 70 degrees for 30 minutes. When cattle are suspected of having the disease and the serological reaction is positive, they are sent for meat together with the calves of cows.[1]

In the veterinary-sanitary examination of cattle meat and meat products, the clinical signs and the obtained potanotomic changes are assessed based on the results of the serological reaction. Farms are constantly inspected. If the disease is detected, sick cattle are separated from the herd and fed

separately. Cattle with an acute form of the disease are sent to slaughter. If *b.melitensis* is detected in cattle, and the meat obtained from the diseased cattle is not processed, it will not be put on the market. Meat obtained from animals with clinical signs of the disease is neutralized by cooking or boiling.

If the serological reaction to brucellosis is positive in the farm, abortion is observed, if clinical signs of the disease are shown, the animals are sent to meat regardless of the price. The body and internal organs of animals are sent for industrial reproduction. Cattle udder, blood and skin are sent for disposal.

Unhealthy farms are quarantined, and animal products are strictly prohibited from entering and exiting the farm without the permission of veterinarians. In farms with a risk of brucellosis spread, regular preventive measures are carried out. Regular disinfection and vaccination of 5-6-month-old calves are carried out under the supervision of a veterinarian

CONCLUSION

To provide our people with high-quality and fresh milk and meat products and to deliver products that fully meet the requirements and regulations of sanitary expertise to the market stalls of our country, to prevent brucellosis among people, to pasteurize milk and then process it, to comply with sanitary and hygiene requirements when obtaining animal products it is necessary to conduct timely veterinary inspection of animals on farms and mandatory vaccination measures before the disease is detected. In order to prevent the disease from spreading especially among people, consumers are requested to buy products that meet the state standards and have passed veterinary control from the markets, and when they see milk and milk products being sold that do not meet such requirements, they are asked to immediately inform the relevant authorities.

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