

МЕДИЦИНА, ПЕДАГОГИКА И ТЕХНОЛОГИЯ: ТЕОРИЯ И ПРАКТИКА

Researchbib Impact factor: 11.79/2023

SJIF 2024 = 5.444

Том 2, Выпуск 2, 29 Февраль

CAUSES, TYPES AND TREATMENT METHODS OF BRUCELLOSIS

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Abstract: Brucellosis is a common infectious disease that affects the musculoskeletal system, nervous system, and reproductive system. This article provides information about brucellosis, its prevention, consequences, modern methods of disease treatment, and necessary measures to prevent the disease.

Key words: brucellosis, infection, leprosy, disinfection, antibiotics, physiotherapy, aerogen.

Brucellosis (lat. brucellosis), black leprosy is a zoonotic infection that is transmitted from infected animals to humans and is characterized by numerous injuries to the organs and systems of the human body. Microbes - the causative agents of this disease - were identified in 1886 by the English scientist David Bruce. In honor of the scientist, microbes are called brucella, and the disease they cause is called brucellosis. Brucellosis is a zoonotic infection, the causative agent of which is transmitted to humans from infected animals. The disease often becomes chronic, and in severe cases can lead to disability.

Brucellosis in animals is caused by three types of bacteria belonging to the genus *Brucella*, including *Brucella melitensis* in rabbits, *V. abortus* in cattle, and *V. suis* in pigs. It can also be found in other pets. Brucellosis found in sheep and goats is the most dangerous for humans. Animals are infected from feed or water, as well as infected sperm during artificial insemination, etc. In female animals, brucellosis occurs in the second half of gestation (in cows at 5-8 months, in ewes at 3-4 months, in pigs at 4-12 weeks), retention of the placenta in the uterine wall, orchitis (inflammation of the testicles) in male animals, joint disease. In most cases,

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brucellosis is latent. The disease is diagnosed on the basis of clinical signs, bacteriological and serological tests, allergic tests are carried out in sheep, goats and pigs using brucellin biological preparation. Prevention and control measures. Cattle are not removed from areas where the disease has spread. In farms where brucellosis has been detected, sick animals are slaughtered, products such as milk and meat are disinfected by special methods, and healthy animals are vaccinated. 8 types of *Brucella* have been identified, 6 of which are dangerous for humans. Ways of transmission of brucellosis • fecal - oral - through water and food; • contact - household - bacteria enters the skin and mucous membranes through microvessels; • aerogenous - inhalation of contaminated dust. People who consume milk and milk products without heat treatment are usually infected by the fecal-oral route. Contact-household and aerogenous routes are less common, they mainly cause illness of people who take care of animals, process products and raw materials obtained from them. If a pregnant woman has brucellosis, there is a high probability of contracting the infection with the fetus or through breastfeeding.

Microinjuries of the mucous membrane of the skin, digestive organs and respiratory tract are the entrance gate of bacteria. There are no changes in the lymphatic channels of the portal area and regional lymph nodes. In brucellosis, lymphadenopathy is gross, which indicates hematogenous spread of microbes. It increases and accumulates in the lymph nodes, and sometimes in the blood. Significant allergic reorganization of the body, sharply slowed type hypersensitivity remains for a long time even after cleansing from the pathogen. Brucellosis is distinguished by its tendency to become chronic. Immunity is formed after the disease, but it does not last long (reinfection is possible after 3-5 years). The clinical appearance of brucellosis is significantly affected by the type of brucella that caused the disease. The most severe form of brucellosis is melitensis, and the rest cause mild forms of the disease.

Clinical forms of brucellosis:

1. Primary-hidden (latent) form;
2. Acute-septic form;
3. Primary-chronic metastatic form;
4. Secondary-chronic metastatic form;
5. Secondary-latent form.

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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 microsymbptoms: 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). Other signs of general intoxication are not 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.

Treatment with antibiotics: tetracycline, streptomycin, doxycycline, rifampicin, two or three of gentamicin drugs - only in acute brucellosis, along with intracellular drugs (biseptol, netilmicin). The most effective antibiotics in the treatment of brucellosis in humans are fluoroquinolones (ciprofloxacin, norfloxacin, ofloxacin), the most effective of which is fleroxacin.

PREVENTION

- Pasteurization or boiling of milk;
- Veterinary control of animals;
- Acquaint the population working with animals and their products with the rules of sanitation and hygiene;

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- Preventive vaccination of people at high risk of disease (short term - about 2 years);
- Mass vaccination of animals did not give the expected result.

To detect brucellosis, in addition to taking an anamnesis and examining the patient, laboratory diagnosis is necessary. It is carried out in institutions specially equipped to work with pathogens of extremely dangerous infections. To separate *Brucella* from blood and other biological fluids, they are sown in special nutrient media. Planting is not always done. A serological reaction and the presence of antigens to *Brucella* in the patient's blood are enough to make a diagnosis of brucellosis.

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