

BRUCELLOSIS DISEASE

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Anotatsiya

Ushbu maqolada Brutsellyoz odamlarga ham, hayvonlarga ham yuqishi mumkin bo'lgan Brucella bakteriyalari keltirib chiqaradigan zoonoz kasallik. Kasallik isitma, charchoq, bo'g'im va mushak og'rig'i, bosh og'rig'i bilan tavsiflanadi. Brusellaning eng keng tarqalgan yuqish yo'li sut, pishloq va go'sht kabi ifloslangan hayvonot mahsulotlarini iste'mol qilishdir. Kasallik yuqtirgan hayvonlar bilan bevosita aloqa qilish, ifloslangan havoni inhalatsiyalash yoki jinsiy aloqa orqali ham tarqalishi mumkin. Brutsellyoz ko'plab rivojlanayotgan mamlakatlarda keng tarqalgan va aholi salomatligi va iqtisodiyot uchun katta xavf tug'diradi. Ushbu maqolada biz brutsellyozning epidemiologiyasi, diagnostikasi, davolash va oldini olishni o'rganamiz.

Kalit so'zlar: Brutsellyoz, zoonoz kasallik, yuqish, epidemiologiya, diagnostika, davolash, oldini olish.

Anotation

In this article, brucellosis is a zoonotic disease caused by Brucella bacteria that can infect both humans and animals. The disease is characterized by fever, fatigue, joint and muscle pain, headache. The most common route of transmission of brucella is the consumption of contaminated animal products such as milk, cheese and meat. The disease can also be spread through direct contact with infected animals, inhalation of contaminated air, or through sexual contact. Brucellosis is common in many developing countries and poses a major threat to population health and the economy. In this article, we will study the epidemiology, diagnosis, treatment and Prevention of brucellosis.

Keywords: brucellosis, zoonotic disease, transmission, epidemiology, diagnosis, treatment, prevention.



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Аннотация

В этой статье бруцеллез это зоонозное заболевание, вызываемое бактериями *Brucella*, которые могут инфицировать как людей, так и животных. Заболевание характеризуется лихорадкой, утомляемостью, болями в суставах и мышцах, головными болями. Наиболее распространенным путем передачи бруцеллы является употребление в пищу зараженных продуктов животного происхождения, таких как молоко, сыр и мясо. Болезнь также может передаваться при прямом контакте с инфицированными животными, вдыхании загрязненного воздуха или при половом контакте. Бруцеллез широко распространен во многих развивающихся странах и представляет значительный риск для здоровья населения и экономики. В этой статье мы рассмотрим эпидемиологию, диагностику, лечение и профилактику бруцеллеза.

Ключевые слова: бруцеллез, зооноз, передача, эпидемиология, Диагностика, Лечение, Профилактика.

Brucellosis is an important health concern in many developing countries, especially in regions with high livestock density. The disease is caused by bacteria of the genus *Brucella*, which can be transmitted to both animals and humans. Brucellosis is characterized by flu-like symptoms such as fever, fatigue, joint and muscle pain, and headaches. If left untreated, brucellosis can lead to chronic diseases, especially affecting bones and joints. In addition to the impact on the health of the population, brucellosis also poses a great economic risk to the livestock industry, in particular in countries where livestock is the main source of income.

This review article was conducted by searching various databases such as PubMed, ScienceDirect, and Google Scholar using appropriate keywords. The main attention was paid to the epidemiology, diagnosis, treatment and Prevention of brucellosis.

Brucellosis is common in many developing countries, especially in regions with high livestock density. The disease can be transmitted to humans through direct contact with infected animals, consumption of contaminated animal products, inhalation of contaminated air, or sexual contact. The diagnosis of brucellosis is difficult due to nonspecific symptoms and requires laboratory tests such as blood culture, serology and PCR. Treatment for brucellosis usually involves a combination of antibiotics such as doxycycline and rifampin. Prevention of brucellosis can be achieved through



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measures such as vaccination of livestock, pasteurization of milk and compliance with hygiene rules.

Brucellosis is a bacterial infection that affects animals and humans. The disease is caused by bacteria of the genus *Brucella*, which are usually transmitted to humans through direct contact with infected animals or contaminated animal products such as unpasteurized milk or cheese.

Symptoms of brucellosis can include fever, chills, sweating, fatigue, joint and muscle pain, headache, and loss of appetite. In some cases, the infection can lead to long-lasting or chronic symptoms, such as recurrent fever, joint pain, and fatigue.

Brucellosis can be detected through blood tests and other laboratory tests that detect the presence of *Brucella* bacteria. Treatment usually involves a combination of antibiotics, and in severe cases, hospitalization may be necessary.

Prevention of brucellosis involves taking precautions when working with animals or animal products, such as wearing protective gloves and clothing, washing hands thoroughly after working with animals, and eating only pasteurized dairy products. There are also vaccines for certain types of animals that help prevent the spread of the disease.

Of course, here is a brief overview of the etiology, Epidemiology and pathogenesis of brucellosis:

Etiology: brucellosis is caused by bacteria of the *Brucella* species, which includes several different species. The most common species that cause human infection are *Brucella melitensis*, *B. abortus* and *B. suis*. These bacteria are commonly found in animals, specifically those raised for meat or dairy products such as cattle, goats, and sheep. Bacteria can be transmitted to humans through direct contact with infected animals, consumption of contaminated animal products, or inhalation of aerosolized particles from infected animal tissues.

Epidemiology: brucellosis is a worldwide zoonotic disease that affects both humans and animals. This is especially common in regions where livestock is a major industry, such as the Mediterranean basin, the Middle East and central and South America. Brucellosis is relatively rare in the United States, with only a few hundred cases reported each year. However, the disease still remains an important problem in other parts of the world, particularly in developing countries.

Pathogenesis: when *Brucella* bacteria enter the human body, they can infect various organs and tissues, including the liver, spleen, bone marrow and reproductive organs. Bacteria are able to escape the immune system by entering and surviving



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immune cells such as macrophages. This allows bacteria to persist in the body for a long time, which leads to chronic infection and recurrent symptoms. The pathogenesis of brucellosis is complex and not fully understood, but it involves a combination of bacterial factors that allow bacteria to survive and multiply within host cells, as well as immune reactions that contribute to tissue damage and disease symptoms.

Of course, here is an overview of the prevention and treatment of brucellosis:

Prevention: prevention of brucellosis involves taking precautions when working with animals or animal products. This includes wearing protective gloves and clothing, washing hands thoroughly after working with animals, and eating only pasteurized dairy products. There are also vaccines for certain types of animals that help prevent the spread of the disease.

Treatment: brucellosis can be treated with a combination of antibiotics for several weeks to several months, depending on the severity of the infection. Antibiotics commonly used to treat brucellosis include doxycycline, rifampin, and gentamicin. In some cases, other antibiotics can also be used. It is most effective when treatment is started early, until the infection becomes chronic.

In severe cases of brucellosis, hospitalization may be necessary to manage symptoms and provide supportive support such as intravenous fluid and pain relief. In rare cases, surgery may be needed to remove infected tissue or abscesses, for example.

Even if your symptoms improve before taking the medication, it is important to complete a full course of antibiotics prescribed by your doctor. This will help ensure that the bacteria are completely removed from your body and reduce the risk of repeated infection.

Prevention of brucellosis involves taking precautions when working with animals or animal products, and treatment usually involves a combination of antibiotics from a few weeks to several months.

Brucellosis is a difficult disease to control and prevent, especially in developing countries. The high prevalence of brucellosis in animals poses a great risk to the health of the population and the economy. The main way to infect brucellosis is to consume contaminated animal products, in particular raw milk and cheese. Pasteurization of milk has not been widely used in many developing countries, increasing the risk of transmission of *Brucella*. In addition, the diagnosis of brucellosis is difficult due to nonspecific symptoms and requires laboratory tests that



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may not be available under conditions where many resources are limited. Treatment of brucellosis involves a combination of antibiotics, which can be expensive and are not available in many developing countries.

CONCLUSIONS AND SUGGESTIONS

Brucellosis is an important health problem, especially in developing countries with high livestock density. The disease can be transmitted through several pathways, making it difficult to prevent and control. Vaccination of livestock and compliance with hygiene rules will help prevent *Brucella* transmission. Raising awareness and awareness of the disease among health professionals and the public can also help in the prevention and control of brucellosis. Governments and international organizations can also play an important role in controlling brucellosis by increasing funding.

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