

Brucellosis

Traveler Summary

Key Points

- Brucellosis is a bacterial infection occurring worldwide (especially in the Mediterranean, the Arabian Gulf, parts of Mexico and Central and South America, and South Asia) that is acquired primarily through the consumption of unpasteurized dairy products, especially fresh goat cheese and dairy products from sheep, camel, yak, and reindeer. Goat cheese is typically soft and very white in color.
- Risk to travelers is low but is significant in the setting of ingestion of potentially contaminated food in risk areas.
- Symptoms can include headache, fever, chills, profuse sweating, and abdominal and joint pain.
- Consequences of untreated infection include the slow onset of weakness, exhaustion with activity, and infections of the hip, spine, and testicles.
- Prevention includes observing food and beverage precautions, especially with regard to dairy products.
- No vaccine or preventive drugs are available.

Introduction

Brucellosis is a bacterial disease that is transmitted to humans primarily from cattle, hogs, and goats; it can also be transmitted from sheep, camel, buffalo, yak, reindeer, caribou, dogs, and rats. Transmission occurs by consuming unpasteurized dairy products or through contact with infected meat or animals. The organisms infect humans through the skin or mucous membranes or through the respiratory tract. In travelers, the most common mechanism of acquisition is through eating or drinking unpasteurized dairy products, especially fresh goat cheese and other goat products. Meat products are only occasionally responsible for transmission of brucellosis. There is no clear seasonal pattern in the transmission of brucellosis.

Risk Areas

Brucellosis occurs worldwide. The most endemic areas are the Mediterranean basin (especially Spain, Portugal, and Greece), the Arabian Gulf area, parts of Mexico and Central and South America (especially Peru), and South Asia. An increasing number of cases are being reported from western Asia and parts of Africa. In the US, most cases occur in California, Florida, Texas, and Virginia, and many are associated with ingestion of unpasteurized goat milk products from Mexico. Other cases among US travelers are acquired in the Mediterranean countries and, less commonly, in the Arabic countries.

Risk Factors

Risk factors for travelers include eating meals prepared with undercooked or unpasteurized products from infected animals or close contact with the animals or their tissues. Hunters can also become exposed. Persons with HIV and very low CD4 cell counts may be at a higher risk for severe forms of brucellosis.

Symptoms

The incubation period is usually 2 to 4 weeks. The acute symptoms of brucellosis can include headache, fever, chills, profuse sweating, and abdominal and joint pains. The fever may be intermittent, with chills during the day followed by fever at night and early morning sweats. The chronic form begins slowly, with weakness and exhaustion with activity. Long-term complications are uncommon in travelers.

Prevention

Travelers to endemic areas should avoid eating unpasteurized dairy products, especially goat milk-derived items, locally prepared ice cream, undercooked meat, and exotic dishes containing undercooked animal tissues such as blood or bone marrow. Avoid close contact with potentially infected animals and their secretions, particularly near areas of the skin that have cuts or abrasions.

Need for Medical Assistance

Travelers that have been exposed to or have contracted brucellosis, should seek qualified medical attention, preferably from a health care provider with experience in the management of such cases. Drug treatment is available and the disease is rarely fatal.

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