

Hydatid Disease

Description:

*This disease is caused by infection with a small tapeworm parasite *Echinococcus granulosus*. People become infected by eating eggs of this parasite, usually when there is hand-to-mouth transfer of eggs in dog faeces. This can occur when handling dogs or objects (including food and water) soiled with dog faeces. Person-to-person or sheep-to-person transmission does not occur. Hydatid disease occurs worldwide and is especially common in grazing areas. In Queensland, there are on average 10 cases of hydatid disease reported each year. Humans are infected accidentally during the life cycle of the tapeworm. The normal life cycle of this tapeworm involves two animal hosts: wild and domestic dogs and other meat eaters; and sheep, cattle, pigs and other grazing animals. People are at increased risk of infection if they live in grazing areas where dogs are used to herd cattle and sheep.*

Symptoms:

Hydatid disease occurs when a human is infected with a dog tapeworm. Cysts containing immature forms of the tapeworm occur inside the body. The cysts are most commonly found in the liver and lungs, although they may also occur in other organs. The symptoms produced by the cyst depend on its location, size and the number present. If a cyst leaks or ruptures, it can cause a severe allergic reaction and even death. The cysts can survive for years or even decades. Dogs become infected by eating the organs of infected sheep, cattle or pigs.

Transmission

The tapeworm eggs are passed in dog faeces, so human infection may occur by patting a dog then touching your mouth, by kissing a dog, through contaminated soil items or through consuming contaminated food or water. The time from ingestion of the eggs to developing symptoms of the disease is extremely variable, ranging from 12 months to many years. It is dependent on the number and location of the cysts, and on how rapidly they grow. The disease cannot be transmitted from human to human. Humans can only be infected by eating eggs passed by an infected dog. Dogs usually begin to pass eggs in their faeces about seven weeks after infection, and most will clear the infection within six months. Dogs can be infected repeatedly.

Treatment:

Treatment generally involves surgical removal of the hydatid cyst/s if possible. Drug treatment is also useful in some circumstances.

Health Outcome:

Hydatid disease is a serious infection and may be fatal in a small number of cases. Hydatid disease occurs worldwide and is especially common in grazing areas. In Queensland, there is an average of 10 cases of hydatid disease reported each year.

Prevention:

Ensure dogs are kept away from areas where animals are slaughtered. Ensure the safe disposal of infected offal to prevent it from being consumed by dogs or other animals. Periodically treat high-risk dogs and reduce the number of dogs on farms to the occupational need for them. Wash hands before eating or handling food. Regular screening and treatment of dogs in areas where hydatid disease is common have achieved control of the disease in Australia. Prevent infection in dogs by ensuring they do not eat raw offal and periodically treat dogs for tapeworm. Wash hands after handling dogs and dog faeces.

Help and Assistance

Please contact your doctor, hospital, health clinic or public health unit.

Footnotes

Chin, J., ed. Control of Communicable Diseases Manual, 17 edition. Washington DC: American Public Health Association, 2000. 176 - 183. Mandell, G.L., Bennett, J.E., Dolin, R., (eds). Principles and Practice of Infectious

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Diseases, 4 edition. New York: Churchill Livingstone, 1995: 2550-2553.