

Toxocariasis

Description:

Toxocariasis, is caused by migration of larval forms of a type of parasitic round worm which is part of the Toxocara species. Toxocariasis is a chronic, usually mild disease. Toxocariasis is common wherever dogs are found and the larval eggs can survive in the environment. Children are more commonly affected than adults, with disease rates found to be highest in children under six years of age.

Symptoms:

Toxocariasis can cause abnormal blood test results, enlargement of the liver, and sometimes enlargement of the spleen and lymph nodes. Other symptoms are loss of appetite, muscle and joint pains, abdominal pain, skin rashes and eye problems. These symptoms are due to migration of the larvae through the organs and tissues. Eye infection may result in loss of vision in the affected eye. Only rarely does toxocariasis cause severe disease or death. Symptoms may persist for a year or even longer.

Transmission

Humans become infected by eating infected eggs which are found in soil, direct through contact with infected soil or indirectly by eating food contaminated with infected soil (such as un-washed raw vegetables). The eggs are passed in the faeces of infected dogs or cats. These eggs can remain in the soil for many months to years, but are not infective if they dry out. Once eaten by humans, the eggs hatch into larvae in the intestine. The larvae penetrate the wall of the intestine and spread to other parts of the body. This migration of larvae causes the symptoms people experience. After eating eggs, it takes at least one week for symptoms to appear, but it may be weeks or months. Toxocariasis is not transmitted from person to person. Direct contact with infected animals will not produce infection, as the eggs need to mature for a number of weeks in soil before they can cause the disease.

Treatment:

Most patients recover without specific treatment. If treatment is required for more severe disease, this generally involves drugs to try to destroy the larvae, however no specific treatment has been proven to be effective. In addition, drugs may be given to reduce inflammation in the tissues which develops as a reaction to the migrating larvae.

Health Outcome:

Toxocariasis is an uncommon disease and only rarely does it cause severe disease or death.

Prevention:

Control of the disease requires environmental measures including preventing dogs and cats from contaminating soil and sand pits where children are likely to be exposed to the infection. Dogs and cats should be wormed regularly starting at three weeks of age, and repeated three times at two week intervals and every six months after that. Ensure the hygienic disposal of animal faeces. As the eggs are killed by extreme heat and prolonged dryness, the steam treatment of sand pits and the use of blow guns for kennels have been used to reduce contamination. Practise good personal hygiene habits, especially hand washing after soil contamination, before eating, and by washing food items that may have been contaminated by soil.

Help and Assistance

For further information, please contact your local doctor, community health centre or nearest Population Health Unit.

Footnotes

Heymann, D., ed. 2004. *Control of Communicable Diseases Manual*, 18th edition. Washington, DC: American Public Health Association, pp 464-468.

Mandell, G.L., Bennett, J.E., Dolin, R., eds. *Principle and Practice of Infectious Diseases*, 6 Edition. New York:

Toxocariasis

Churchill Livingstone, 2005. 3293-3294.