THE SCIENCE WORLD
A Monthly e Magazine
ISSN:2583-2212

Popular Article

July, 2023; 3(07), 1667-1669

Gid disease (*Coenurus cerebralis*) in goats

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https://doi.org/10.5281/zenodo.8190481

Synonym - Also known as Gid, Staggers, Sturdy, *Taenia multiceps*

A parasite condition affecting the central nervous system is coenurosis. Although it is not very prevalent, it is observed in several places, particularly in Asian nations. It is brought on by a tapeworm (cestode) known as *Taenia multiceps* (T. multiceps), which lives relatively unharmed in the definitive canine host (which includes dogs, foxes, jackals, and coyotes), but causes serious illness in the intermediate host when the larval stage of the tapeworm migrates to the brain and spinal cord and matures into a fluid-filled cyst. The primary intermediate host is sheep, though there have also been a few isolated occurrences in cattle, pigs, deer, horses, and humans.

Coenurus cerebralis, the larval stage of the tapeworm *Taenia multiceps*, which infests the small intestine of carnivores, is the cause of Gid (Coenurosis), a disease of the central nervous system in goats. In 80–90% of cases, the cyst is situated in one cerebral hemisphere; in 5%–10% of cases, it is localised in the cerebellum; and, in a very small number of cases, it affects two locations in the brain of the affected animal.

The larval form of *Taenia multiceps*, known as *Coenurus cerebralis*, is found in the small intestines of carnivores. Intermediate hosts become infected as a result of ingesting the eggs, which spread via their faeces.Gid or sturdy is the name of the illness, which typically affects the central nervous systems of sheep and goats but can also affect camels, deer, pigs, horses, and, very infrequently, cattle and people. The majority of cysts are found in the spinal cord and cerebral hemispheres; they very rarely invade the subcutaneous and intramuscular tissues or other organs.

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*Published:*26.07.2023

The location, size, and compression of the cyst on the brain have an impact on the symptoms. While C. cerebralis first results in purulent meningoencephalitis, as the cyst develops, it eventually produces symptoms of the central nervous system that end in death. Two to eight months after the pathogen consumption, the majority of the distinctive clinical signs are seen. Animals with the infection display symptoms include circling, head tilting in the direction of the cyst, coordinated and uncontrolled movements, ataxia, inability to keep the head upright, blindness, teeth grinding, salivation, paresis, and convulsions. Bleating, head pressing against the wall, circling, and anorexia history. There was bleating when the occipital bone between the two horns was pressed.

The real prevalence of coenurosis is difficult to assess, because farmers and vets often diagnose the disease and send the animal for slaughter without confirmation or report. A large proportion of infected lambs may also be sold fat before clinical signs have developed

Clinical Signs

The clinical signs of the coenurosis develop when the central nervous system (CNS) of the goat/sheep is invaded by the cystic larval stage, or metacestode of the tapeworm.

Coenurosis can occur in both an acute and a chronic disease form. Acute coenurosis occurs during the migratory phase of the disease, usually about 10 days after the ingestion of large numbers of tapeworm eggs. Young lambs aged 6-8 weeks are most likely to show signs of acute disease. The signs are associated with an inflammatory and allergic reaction. There is transient pyrexia, and relatively mild neurological signs such as listlessness and a slight head aversion. Occasionally the signs are more severe and the animal may develop encephalitis, convulse and die within 4–5 days.

Zoonotic Importance of Cerebral Coenurosis

Coenurus cerbrallis in human beings diagnosed for the first time in 1913 in Paris, when a man presentedsymptoms of CNS nerve degeneration. He hadconvulsions and trouble speaking/ understanding speech.During his autopsy, two coenuri were found in his brain.

Coenurosis is a relatively rare zoonotic disease ofhumans, caused by the larval stage of a dog tape wormTaenia (Multiceps) multiceps. Human infection occurs ifeggs are accidentally ingested as result of poor personal hygiene after being shed in the faces of the dog. After ingestion of the eggs, larvae hatch, penetrate theintestinal wall and migrate to various tissues, where theydevelop in to large, cystic larvae.

Control and Prevention

Control of coenurosis in livestock relies on the same measures as those used to prevent other metacestodoses Cerebral coenurosis can be controlled by regular anthelmintic treatment of dogs

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*Published:*26.07.2023

at 6–8-week intervals, by using an effective taenicide and correct disposal of sheep and goat brain after slaughtering or death of animals to prevent scavenging by dogs belonging to the general public, which may not receive regular anthelmintic treatment

Effective control measures can also be taken by methods such as prohibition of backyard slaughtering, disposal of heads and public awareness of the epidemiology of the C. cerebralisCommunities and governments can make sure theirwater supply remains sanitary and free of dog feces.Communities can control number of stray dogs.

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***Published:*26.07.2023**