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Source: Journal of Wildlife Diseases, 12(4) : 550-551

Published By: Wildlife Disease Association

URL: https://doi.org/10.7589/0090-3558-12.4.550

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CEREBRAL COENUROSIS IN A WILD SHEEP (*Ovis ammon*)

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Abstract: Cerebral coenurosis is described in a 2 year-old wild sheep (*Ovis ammon*). Diagnosis was based on clinical signs and pathology.

CASE REPORT

In March, 1976, a 2 year-old, male wild sheep (*Ovis ammon*) was brought to the Veterinary Clinic, Pahlavi University, with a history of neurologic signs and anorexia. The animal was captured in a local National Park and showed no resistance to caputre. He was in fair body condition, but clinical signs of pneumonia, pleurisy, tachycardia and hydropericardium were detected. The animal walked in circles to the right, with occasional ataxic gait and falling. Tentative dignosis of damage to the central nervous system was made. On the third day the animal went into shock and died in spite of treatment.

GROSS PATHOLOGY

At necropsy severe fibrous adhesions were observed between the lungs and parietal pleura. The lungs contained multiple consolidated areas located mainly near the edges of the diaphragmatic lobes. Significant findings were confined to the brain. Two large cysts of coenurus filled with clear watery fluid occupied the entire lateral ventricles and displaced the adjacent parenchyma (Fig. 1). The left ventricle was more severely dilated.

HISTOPATHOLOGY

Sections from the lungs showed chronic pneumonia with large numbers of lungworms. Brain sections revealed inflammatory reaction in the brain parenchyma immediately adjacent to the cyst. Lymphocytic infiltration with perivascular cuffing also was present. The cellular infiltrate consisted of mononuclear cells, lymphocytes, polymorphonuclear leukocytes and giant cells (Fig. 2), and the neurons adjacent to the cyst wall were degenerated and atrophic.

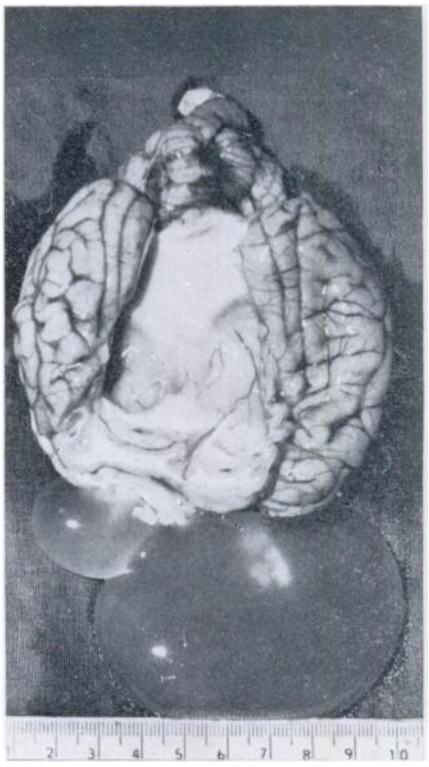


FIGURE 1. Brain of the wild sheep showing two large cysts which filled the lateral ventricles.

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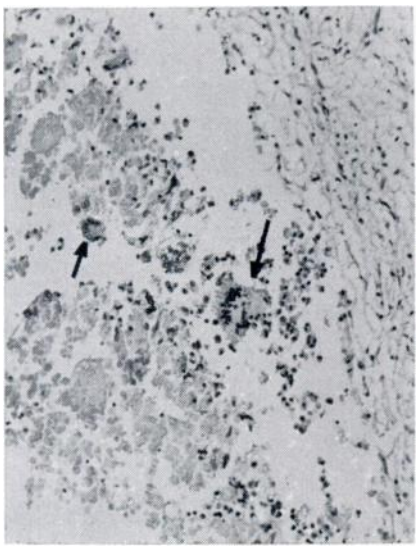


FIGURE 2. Photomicrograph of the affected brain tissue showing degeneration and atrophy of the wall of the ventricle with inflammatory reaction and giant cells (arrows).

DISCUSSION

Coenurus cerebralis, the larval stage of the dog tapeworm, *Multiceps multiceps*, is the cause of a disease of the central nervous system of sheep known as "gid" or "sturdy".[3,4] The disease is fairly common in sheep, less common in other ruminants, rather rare in rodents, horses and man,[2] and also has been reported in a cat.[1] The brain is the favorite site for the coenurus, although infrequently it is found in the spinal cord.[3,4] As a tapeworm cyst with many scolices, the present specimen was designated as *Coenurus* sp., a larva of the genus *Multiceps*. In many parts of this country farm dogs, stray dogs, foxes and other wild Canidae appear to be the main source of the infection.

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Received for publication 14 May 1976

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