Brucella canis infections diagnosed in Calgary dogs

UCVM experts investigate and provide recommendations for managing the disease

Dr. Sylvia Cheekley, Dr. Serge Chailoux and Dr. Chantal McMillan were involved in the investigation of Brucella canis in Calgary dogs and provided recommendations for managing this disease. - Photo by Shin’ji Toriue

Brucella canis, an infectious disease rarely diagnosed in Alberta, has been identified in dogs imported from the Southern US-Mexico region to the Calgary area. A team from University of Calgary Faculty of Veterinary Medicine (UCVM) is leading a group of experts to define the problem and provide guidelines for managing animals who have tested positive or who have been exposed to dogs carrying Brucella canis.

Brucella canis bacteria can infect a variety of different tissues in the body, but are most commonly associated with infections of the reproductive organs in dogs. The disease can spread between dogs and also to humans, although the risk of transmission to people is believed to be quite low.

Following the initial diagnosis of Brucella canis in a dog by a local veterinarian, UCVM experts identified four other positive dogs that have been in contact with this case. This initial case originated in the Southern USA. Three dogs testing positive that had contact with this original case also originated in the Southern USA. The fourth positive case originates in Alberta. This dog has prolonged contact with the positive case in a home. Another dog originating from Mexico was diagnosed with Brucellosis by another local veterinarian. This case has had no contact with the cases from the Southern USA.

Prevalence in local dog population presumed to be low

"The true prevalence of this disease in the local dog population is unknown, but is presumed to be low. While not highly contagious if animals have been spayed or neutered, the bacteria are difficult to eradicate from dogs, so proper management of infected animals is critical," said Dr. Serge Chailoux, a small animal internal medicine specialist at the University of Calgary.

Chailoux is part of a team of experts with the University who are working with private practitioners, the Alberta Veterinary Medical Association, Alberta Agriculture and Rural Development, Alberta Health Services, Alberta Health and the Canadian Food Inspection Agency.

Impact on animal and human health

Disease can cause a variety of symptoms in dogs depending on the site of infection, so consultation with a veterinarian for animal illness is important in clinical management. Disease in humans can also cause a variety of symptoms, so consultation with a physician is also important.

"These cases remind us of the importance of ensuring the health of our pets and animals imported into Canada," said Dr. Phil Boitano, Deputy Registrar, Alberta Veterinary Medical Association (ABVMA). "The identification of Brucella canis in rescue dogs is a recent discovery. There is no reasonable expectation that the occurrence of this disease in imported rescue dogs should have been predicted. This situation highlights the importance of proper veterinary care."

Alberta Health Services (AHS) and Alberta Health (AH) have been advised of the positive canine cases. Although no human transmission has occurred, as a precaution, AHS has contacted all individuals who have been exposed to the canine cases, advised these individuals of the potential risk, and the options for reducing that risk.

Recommendations to manage the disease

"As this is an uncommon disease, it is important that veterinarians and others working with imported animals know how to approach the problem. We are providing veterinarians and rescue organizations with recommendations for management of the disease," said Dr. Sylvia Cheekley, a veterinary epidemiologist at the University of Calgary.

"The ABVMA supports the rescue of dogs and the efforts of rescue organizations, provided appropriate screening tests are performed, in an effort to protect resident dog populations," added Boitano.

If you have questions about the health of your dog, contact your family veterinarian. If you are concerned you have possibly been exposed to Brucellosis, consult your family physician.

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