Canine Flu: A New Disease Affecting Dogs

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History

Canine flu is a new disease that is affecting dogs. It is caused by the canine influenza virus, a relatively new virus of dogs. It was first identified in racing greyhounds in 2004 and this virus appears to have been involved with significant respiratory problems on the dog tracks throughout the U.S. since then.

The Virology Lab at Cornell University in New York isolated the first influenza virus from a dog that died during one of the racetrack outbreaks. Non-greyhounds have also been found to be infected by this influenza virus.

The canine influenza virus is a virus that originally infected horses. It is identified as the H3N8 virus, and has been in the horse population for at least 40 years.

Signs

Since this is a new virus to cause disease in dogs, all dogs are potentially susceptible to infection. As with any disease, there is variability in the clinical signs and the eventual outcome of the infection. Approximately 80% of dogs exposed to the virus show signs of disease; about 20% become infected but do not show signs. The most common sign is a cough that can persist for up to three weeks regardless of treatment. Dogs may have a thick nasal discharge that seems to resolve with antibiotic treatment. This suggests that secondary bacterial infections may commonly occur. Dogs may also display sneezing and other respiratory signs. More severely affected dogs develop a high fever (104-106) with increased respiratory rates and other signs of pneumonia. There may be bleeding into the respiratory tract. Again, antibiotic therapy seems essential for recovery, since secondary bacterial infections are common. Some fatal cases of pneumonia have been reported, with the mortality rate between 1 and 9%.

It may be difficult to differentiate a mild case of canine influenza virus infection from traditional infectious tracheobronchitis (kennel cough) in an individual dog. It is more obvious when groups of dogs are affected. Since this is a new disease, virtually all dogs are susceptible to canine flu, regardless of age or vaccination history. Infection rates in kennels may reach 100% with clinical signs developing in 75-80% of dogs.

Transmission

The incubation period (time from exposure to development of signs of disease) is relatively short, in the 2-5 day range. Most animals can transmit the virus for 10 or more days after the start of clinical signs. Nearly 20% of infected dogs will not display clinical signs and become the silent shedders and spreaders of the infection.

Canine influenza virus is spread by airborne respiratory secretions (e.g., from sneezing or coughing), contaminated inanimate objects, and even by people moving back and forth between infected and uninfected dogs. The virus is killed by routine disinfectants, such as a 10 percent bleach solution.

Diagnosis

If a dog is showing signs of infection for less than 72 hours, canine influenza can be diagnosed by virus isolation from a swab of the throat area. For dogs who have had signs of disease over 72 hours, the diagnosis is generally made by the detection of antibodies in the blood.

Management

Dogs with respiratory signs such as cough or sneezing should be tested for the presence of canine influenza. Antibiotics may be prescribed, as necessary, by the veterinarian. Symptomatic treatment may be necessary in some cases. In severe cases, intravenous fluids, supplemental oxygen, and other measures may be required.

Prevention

There is currently no vaccine available for this disease. Prevention is key. The disease is most likely to spread where large numbers of dogs come together, such as in boarding facilities, dog shows, dog classes, dog parks, etc. While the canine flu is not a cause for panic, owners should take precautions. This includes not allowing your dog to share toys or dishes with other dogs grouped together. Vaccinations for other diseases should be kept up to date to decrease the possibility of other respiratory diseases. Dogs diagnosed with respiratory infections should be kept isolated from other dogs for 2 weeks. Since the virus could be transmitted from dog to dog via human hands, clothing, and other items, persons should take precautions against inadvertently spreading the virus between dogs.

Canine influenza virus is different than the avian influenza virus that causes bird flu. There is no evidence that canine influenza virus infects any domestic animals other than dogs.