

Kennel Cough

(By Fiona Linnane RVN, Glenina Veterinary Clinic, Galway)

Kennel cough is an extremely contagious upper respiratory infection affecting dogs. It causes tracheobronchitis (inflammation of the lining of the airways.) It is caused by a combination of viruses and the bacteria *Bordetella bronchiseptica*.

Dogs that develop kennel cough usually present with a dry cough that sometimes ends with a retch, which is usually just as distressing for the owners as the dog. The owners may have mistaken this as vomiting or as something stuck in the dog's throat. The cough can be either spontaneous or induced. It is often worsened by exercise, excitement or pressure around the throat. As the frequency of the cough increases, so too does the irritation of the airways linings and therefore the disease tends to be self-perpetuating.

Transmission is generally airborne, through sneezing and coughing, so any contact with an infected dog (not necessarily in kennels) can lead to the development of clinical signs. These can normally be seen from five to seven days. Nevertheless, the incidence is greater in places like boarding kennels, where large numbers of dogs are at close quarters and potentially more stressed than usual. Kennel cough may also be spread through contact with contaminated surfaces so good husbandry is vital.

Diagnosis is generally based on clinical signs and in some cases, pharyngeal swabs to culture to isolate the bacterial element of the disease. It is not possible to distinguish between the various causes of kennel cough using clinical signs alone. Accurate identification of a specific infectious agent should only be attempted where susceptible animals are in contact with the affected case. The cough may be present for a couple of weeks and care must be taken to remove the dog from stressful situations to prevent reoccurrence.

The main infectious agents associated with kennel cough are:

- 1) *Bordetella bronchiseptica* :- Potentially the major cause of kennel cough and is probably responsible for the more severe symptoms
- 2) Canine parainfluenza virus (CaPiV) :- Alone causes a mild cough and occasionally a clear nasal discharge
- 3) Canine adenoviruses 1 and 2:- Both are implicated in kennel cough but cav-1 may have wider implications i.e. cause infectious hepatitis. It is worth noting that canine herpes virus and canine distemper virus may also be involved in the kennel cough complex without actually developing into the individual diseases.

Prevention

Vaccination is the best way to prevent contraction of the kennel cough agents. Many multivalent vaccines now include CaPiV, distemper virus and adenoviruses constituents. These vaccines are administered annually as the booster vaccine. *Bordetella bronchiseptica* and canine parainfluenza vaccination is available separately and is administered nasally.

Prevention of contact with unvaccinated dogs during clinic hours where possible and in the dog's own environment. Unvaccinated dogs should be seen and housed separately to others.

Routine disinfection is adequate for dealing with the pathogens that cause kennel cough. None of them persist in the environment for longer than a few days.

Treatment

Kennel cough should be treated with broad spectrum antibiotics such as clavulanate –potentiated amoxicillin, tetracyclines and potentiated sulphonamides are generally effective.

In some cases, expectorant and cough depressant medicines are used through the cascade system. However, care should be taken with those containing diphenhydramine in patients with cardiac problems.

Rest is beneficial and appetizing food with an attractive smell is often required due to the reluctance of the coughing dog to eat.

For further information please contact the clinic on 091-752014