

LUNGWORM

CANINE LUNGWORM – ANGIOSTRONGYLOSIS

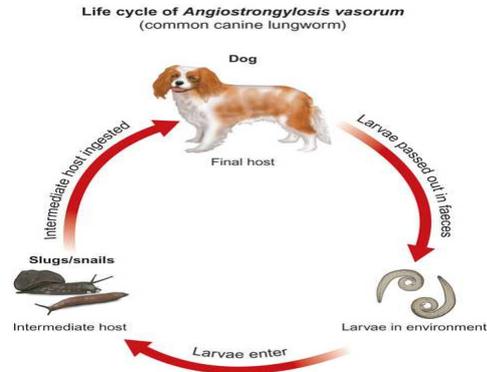
The bowel is not the only organ infested by canine parasitic worms. Heartworms and lungworms are relatively common in certain parts of the world. For many years *Angiostrongylus*, canine lungworm, has been known to exist in the UK but was confined to parts of Wales and Southern England. Over the last few years lungworm infestation in Scotland and parts of Northern England has been reported. It now appears that the problem is widespread across the whole of Britain.

What is lungworm disease?

In both cats and dogs the disease is caused by a small roundworm known as a Metastrongyle. This family of roundworms are all known to live in the lungs themselves or their adjacent blood vessels.

Angiostrongylus vasorum, the canine lungworm, lives not in the lung tissue itself but in the associated pulmonary blood vessels and sometimes in the heart.

The resulting signs are little different from those in the cat where the problem is caused by an entirely different worm *Aelurostrongylus abstrusus* which lives in the lung tissue.



What are the signs?

The difficulty with canine lungworm is that affected dogs may not show any signs at all (i.e. the disease is sub-clinical). With the majority of healthy dogs that become infected the condition runs a chronic course with non-specific, often intermittent signs such as lethargy, weight loss and occasional vomiting. This can sometimes progress to true cardio-respiratory signs such as a cough with difficulty in breathing (dyspnoea) and reduced exercise tolerance.

Other signs include blood clotting problems so that the dog may occasionally cough up blood, or have intermittent nose bleeds. In some dogs it appears to affect the nervous system so that lethargy, sometimes spinal pain or paralysis, followed by fits may occur.

Angiostrongylus vasorum, the canine lungworm, is usually prevalent in relatively young dogs and therefore these signs may be picked up more readily. The condition has been diagnosed in dogs as young as 10 months of age.

Present position in the UK

Lungworm has been known to be present in the UK for years but appeared to be confined to southern areas of England and Wales. Today it is far more widespread. It is now considered to be endemic for the whole of the south of England and south Wales and there have been reports of incidences in the north west of England. Thus it is reasonable to consider that there is a risk of this condition throughout England and certainly many parts of Wales.

Why has this spread occurred?

To understand this we have to consider the life cycle of *Angiostrongylus vasorum* the canine lungworm. Adult worms live in the pulmonary blood vessels or in the heart. They measure up to 2.5 cm (1 inch). They lay eggs which are carried to the smaller blood vessels and capillaries where they hatch into larvae (L1). These immature worms, (L1 larvae), break through the vessel walls and enter the lung tissue from which they are coughed up and then swallowed. Ultimately they are passed out in the faeces. The life cycle is then continued when they enter a suitable snail or slug (mollusc) which in turn has to be ingested by a dog for the life cycle to be completed. Maturation of the larvae occurs first in the bowel and then in the pulmonary blood vessels of the dog.

Slugs and snails have become very much more prevalent in Britain as a result of our warmer, wetter weather and it is to this that the now countrywide spread of lungworm is attributed.

Slugs and snails are very common garden pests. The dog does not need to deliberately eat them in order to become infected. Tiny slugs and snails are just as potentially hazardous. These can often be ingested accidentally when the dog eats grass, drinks from puddles or outdoor water bowls. They can also be accidentally swallowed from outdoor toys with which the dog plays. It is also suggested that live larvae can be present in the slime track left by the snail and thus dogs eating such slime covered grass can be infected.

How is it diagnosed?

Today there are specific tests available that can diagnose *Angiostrongylosis* even if the dog is not showing any signs at all, although the most reliable laboratory test involves detection of larval worms in a faeces sample.

How is it treated?

Routine roundworm remedies may be effective but this you should check with us on each occasion. There are very effective treatments for *Angiostrongylus vasorum* available. These treatments will specifically target lungworm as well as other intestinal parasites both roundworms, tapeworms and sometimes, external parasites, fleas and lice etc.

Some 'spot-on' preparations particularly Advocate (Bayer) are very effective.

Prognosis

Once diagnosed and treated most dogs make a full recovery with no further problems. However it is important to maintain a regular de-worming programme that is effective for lungworm. It is also important that action is taken early. The difficulty is that some dogs may be infected and be asymptomatic (not showing any signs). This problem can be overcome with routine worming using appropriate products. Please consult us. It should be remembered that some dogs can be infested if they have been in contact with foxes or their excrement or also rodents or birds that may have been infected by eating infected molluscs.

Treatment

If your dog is diagnosed with lungworm, treatment is available from your vet and is easy to administer. Once diagnosed and treated, most dogs make a full recovery. The key to successful treatment is taking action early.

If you are concerned your dog has picked up, or is at risk from picking up a lungworm infection, speak to your veterinary surgeon without delay.

Prevention

Treatment is available and can result in full recovery, but as this parasite can be fatal it is important to consider prevention. Preventative products are available and with regular use prevention is easy to achieve; always speak to your vet because not all worming products are effective against this particular parasite.

Other useful advice:

Pick up toys from the garden: Toy's left in the garden overnight are exposed to slugs and snails, who are most active when the sun goes down. Smaller snails can reside in the crevices of toys or burrow underneath them and can be accidentally swallowed by dogs when playing with the toy. Be sure to pick up your dog's toys at the end of each day and store them in a snail tight container.

Regularly clean water bowls: As our study showed, slugs thrive in damp conditions and will seek out any source of moisture that they can. This makes a dog's water bowl left outside an ideal target for slugs and snails. Make sure you change your dog's water regularly, especially if the bowl sits outdoors.

Pick up the poo: The poo of a dog infected with lungworm will help spread the parasite to other slugs and snails, where it will develop. If two or more dogs share the same environment and one is found to be infected, the others may be at high risk due to exposure to the same surroundings. Foxes can also become infected with lungworm, and their increasing numbers have been implicated in the spread.

Multi dog households: If you own a number of dogs and one becomes infected, make your veterinary surgeon aware as they may want to examine other dogs which share its environment.

Know the risks

A recent survey¹ suggests the potentially fatal lungworm parasite, *Angiostrongylus vasorum*, is now endemic throughout much of the UK. Your veterinary surgeon can recommend a parasite control programme that takes into account the risk of dogs in your area becoming infected with lungworm. If your dog eats slugs and snails, but is not showing any symptoms, arrange a check up with your veterinary surgeon as a precaution.

If your dog has had lungworm your vet may recommend regular check ups to allow early detection if your dog becomes re-infected.

If you're concerned about any of the information you've read above or have any further questions please speak to your veterinary surgeon.