

HOLMER VETERINARY SURGERY

Spring 2022 Newsletter

Welcome to our Spring 2022 Newsletter. As you have probably seen building work continues at the practice, we now have two consult rooms that have been renovated and work on third is in progress. Our new cat ward is almost complete, equipment is on order for the new cat only prep and operating rooms so we should have the area up and running soon. We hope all the changes will help us become an accredited cat friendly clinic in the the near future. Last month we welcomed back Nic one of our RVNs (Registered Veterinary Nurses) after maternity leave, it is great to have her back in the team.

In this newsletter we have decided to take a look at the problem of fleas. Although fleas typically become more of an issue as the weather warms up they more recently have become an issue all year round. Secondly we look at a condition called Dilated Cardiomyopathy (DCM). After sadly losing a young dog to this life threatening condition earlier this year it felt important to highlight the condition which can go undetected until it is too late.

Let's talk fleas

Fleas are usually a problem during the warm and humid times of year; summer and autumn. But due to the warmer milder winter we are seeing a larger incident of fleas this year in times we wouldn't normally expect. Unfortunately, fleas can quickly become a huge problem that can be difficult to get on top of and get rid of.

The problem begins with the fact that a single flea can land on its host, begin feeding and start their reproductive process almost immediately. The adult flea can lay around 50 eggs in a 24-28 hour period, once a host is found. In a few days the eggs hatch into the larval stage and will usually take 10-20 days to develop into pupae. In the correct conditions the pupae will hatch into an adult flea within 3 weeks, making the whole life cycle in under 8 weeks. The fleas thrive in are warm and humid areas which they can now find all year round in our homes thanks to central heating. If the conditions are not favourable for flea pupae development to progress then they can survive dormant in carpets, rugs and pet bedding for months, waiting for the right conditions. The presence of a host walking by (such as a cat or a dog) will cause vibrations, this alongside warmth and humidity, will cause the pupae to begin to hatch into an adult flea. It is for this reason we can see frequent re-infestations.



Fleas are very small, but can be seen by the naked eye as brown insects about 2mm long and are known for jumping from one animal to another. If fleas are not visually seen but are suspected you may see something called 'flea dirt' which are dark deposits in the animals fur, flea dirt is essentially flea droppings. You can identify flea dirt, as opposed to mud, because if you put it on a damp paper towel flea dirt will turn reddish.

The itching seen when fleas are present in cats and dogs can create self-induced trauma with red raw patches, flaky and sore skin. Some animals are allergic to flea saliva and suffer more severely from flea allergic dermatitis (FAD). Pets who suffer FAD will be intensely itchy and uncomfortable overgroom themselves so often present with broken hairs and/or bald patches, with or without crusty scabs, typically around the base of the tail or neck but can be seen anywhere on the body. Fleas are rarely detected in FAD cats as they are such fastidious groomers.

Flea infestations can be particularly dangerous to young animals, the overburden of fleas feeding on them can cause anaemia (low red blood cells), which can manifest as pale gums, weakness, and lethargy.

Apart from being a nuisance fleas can also transmit certain diseases. Fleas act as the intermittent host for tapeworms (*Dipylidium caninum*) which can infest cats and dogs when they ingest a flea through grooming, it is for this reason it is important that animals that have fleas are also treated for tapeworm.

Fleas can act as vectors for a variety of infectious diseases. Infected fleas can transmit bartonella to cats through biting them, which is also zoonotic to humans. Bartonella causes the condition known as 'cat scratch fever' in cats and humans transferred through cat bites and scratches. *Mycoplasma haemofelis* which is a causative agent for feline infectious anaemia can also be transmitted by fleas. In rabbits fleas can be a vector for myxomatosis and viral haemorrhagic disease.

A wide variety of treatments are available to prevent fleas collars, spot on treatments and tablets which can help protect against fleas from 4 weeks up to 8 months depending on the product used. When a flea infestation is already established environmental management is as important as treating your pet/s. Vacuuming at least three times a week can activate dormant eggs and pupae so they become more susceptible to flea products. Washing pet bedding regularly. House hold flea sprays are available that kill all stages of the flea life cycle.

If you are having issues with a flea infestation or would just like general advice regarding flea prevention for your pet/s please do not hesitate to contact the surgery.



Dilated cardiomyopathy (DCM)

What is DCM?

DCM is a heart condition characterised by weakness of the heart muscle (myocardium), with the chambers of the heart overstretching and the walls thinning. The dilated heart is unable to pump blood around the body efficiently and over time affected individuals will develop congestive heart failure (CHF) which, sadly, is inevitably fatal.



What are the causes of DCM?

A genetic predisposition to DCM is the most common reason for dogs developing the disease. Giant and large breed dogs are more commonly affected including Irish Wolfhounds, Dobermanns, Great Danes, Dalmations, Boxers and Cocker Spaniels. Some studies have suggested that as many as 58% of the Dobermann population are affected by the condition. Less commonly nutritional deficiency in the essential amino acids taurine and/or carnitine can result in DCM, this may be an inability of the dog to efficiently utilise these nutrients or a deficiency in the diet itself. Non-traditional diets including grain free diets, which use novel proteins and legumes as grain substitutes, have been implicated in the development of DCM in some dogs. Inflammatory heart conditions (myocarditis) and tachycardiomyopathies (conditions causing an excessively fast heart rate) can also result in the development of DCM.

What are the symptoms of DCM?

Occult/preclinical DCM can be present, particularly in susceptible breeds, for 6 months to up to 4 years before clinical signs develop. These dogs may have no clinical signs at all or only very subtle signs found on clinical examination such as a low-grade heart murmur and/or a subtle change in the heart rate and rhythm.

Overt/Clinical DCM presents with signs of CHF which can include increased respiratory rate and/or effort, cough, reduced ability to exercise, weight loss, swollen abdomen, fainting/collapse, sudden death. On physical examination the veterinarian is likely to detect an increased heart rate, and respiratory rate, crackly lung sounds, fluid in the abdomen, pale colour, weak pulses and a low temperature.



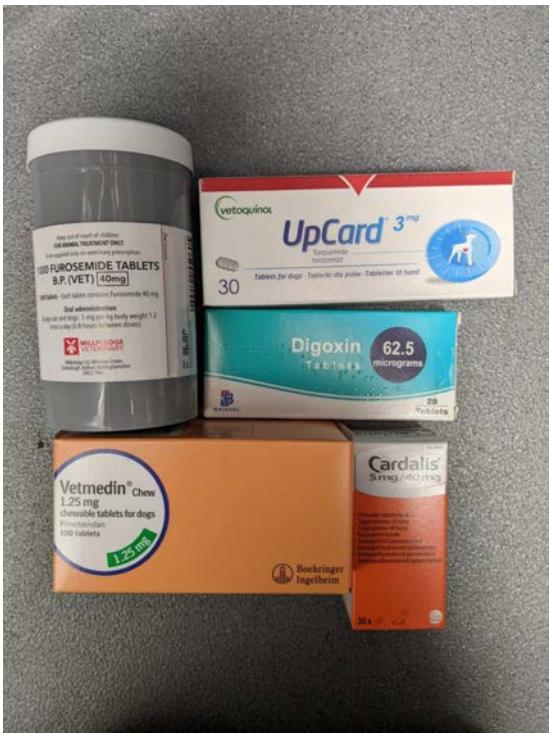
How is DCM diagnosed?

Specific blood markers can be measured to detect evidence of damage to the heart muscles.

Imaging – Ultrasound of the heart

(echocardiography) is the most sensitive test for detecting DCM both pre-clinically and clinically. Chest radiographs can detect an enlarged heart and pulmonary oedema (fluid in the lungs) due to CHF.

E.C.G. (electrocardiography) – ideally a 24hr monitor to assess and record the heart rhythm. In some cases changes in the heart rhythm are detected before the physical changes in the heart develop, although more commonly rhythm disturbances result when the heart muscles have been stretched/damaged.



How is DCM treated?

Preclinical DCM can be treated with a product called pimobendan which helps improve the strength of heart muscle contractions and delay the progression to clinical disease by, on average, 9 months.

Clinical disease, once a dog develops CHF then diuretics are used to help clear the fluid from the chest and/or abdomen, pimobendan is used to improve heart muscle function and additional drugs can be used to help slow the remodelling/abnormal changes to the heart muscle. Anti-arrhythmic drugs may also be required to help manage rhythm disturbances if they develop.

For patients presenting with ascites (increased fluid in the abdomen) therapeutic drainage of the fluid may also be beneficial.

Amino acid supplementation with Taurine and Carnitine.

Can DCM be cured or prevented?

In some cases that develop as a result of amino acid deficiency, resolution of the DCM can sometimes be seen after 6-8 weeks of supplementation. Whilst Taurine can be measured in the blood some dogs appear to benefit from supplementation even when blood levels are normal. Blood levels of L-carnitine are not considered representative of levels in the heart. Careful selection of diets may help avoid some of these DCM cases due to deficiency.

Sadly idiopathic DCM in dogs with a genetic susceptibility cannot be cured. Careful selection and screening of breeding animals may help reduce the incidence of disease. Prospective owners of the high-risk breeds should carefully do their research before purchasing a new puppy. For high-risk breeds, even with no evidence of clinical disease, it is recommended to consider screening (heart scan or blood tests +/- ECG) from 3 years of age.

The results of the PROTECT study which investigated the use of pimobendan in Dobermanns with DCM is free to view at [Efficacy of Pimobendan in the Prevention of Congestive Heart Failure or Sudden Death in Doberman Pinschers with Preclinical Dilated Cardiomyopathy \(The PROTECT Study\)](#) (nih.gov)

If you are concerned your dog may be at risk of DCM please do not hesitate to contact us to speak to one of our vets at Holmer Veterinary surgery. If you are concerned that your dog may be showing signs of CHF please arrange an appointment with your veterinarian as soon as possible.