Canine Dilated Cardiomyopathy
Elizabeth Gregory

What is Dilated Cardiomyopathy?

Canine Dilated Cardiomyopathy, or DCM, is a common heart disease that is most often seen in large and giant breed dogs, though it has recently also been associated with Cocker Spaniels. The most common breeds seen with DCM include Doberman Pinschers, Great Danes, and Boxers. This is a disease of the heart muscle, and it inhibits the heart from being able to contract and effectively push blood out of the heart and into the rest of the body. It is most commonly seen in middle age to older dogs, with males being more likely to develop the disease than females.

What causes DCM?

The exact cause of DCM in dogs is unknown, though DCM has been associated with genetic predispositions, infectious causes, and nutritional deficiencies. Genetic predispositions with this disease are poorly understood, though they are thought to occur in Doberman Pinschers and Great Danes, as it occurs so commonly in these breeds and can be seen in multiple animals from the same family. Infectious causes of DCM include Trypanosomiasis, or Chagas Disease, and Parvo Virus infection in puppies while in the uterus. Though nutritional deficiencies, including taurine and carnitine, most commonly cause DCM in cats, they have been found to also cause disease in some dogs. Taurine deficiency has been found to cause DCM in Golden Retrievers and Cocker Spaniels, while carnitine deficiency has caused DCM in Boxers.

How is DCM diagnosed?

Dogs with DCM will eventually show clinical signs that an owner will notice, which prompt them to take the dog to see a veterinarian. These clinical signs occur due to the disease causing a thinning of the heart wall and a dilation of the ventricles of the heart. This thinning and dilation decreases the efficiency of the heart pumping out blood to the body and lungs, causing the dog to be lethargic, weak, and have exercise intolerance. Eventually, blood will back up in the lungs causing congestion, leading to signs like coughing and respiratory distress. DCM is diagnosed with an echocardiogram, or an ultrasound of the heart, that allows the heart chambers to be visualized in real time. With an echo, the ability of the heart to pump blood out can be measured. Radiographs, or X-rays, of the chest should also be performed to look for an enlarged heart and fluid in or around the lungs. An electrocardiogram can be used to monitor the heart rate and to watch for any arrhythmias that may occur.
How is DCM treated?

Treatment of DCM focuses on increasing the ability of the heart to pump blood more strongly and decreasing the amount of pressure the heart has to pump against by relaxing the blood vessels. Other drugs, called diuretics, are added when there is congestion, when blood backs up into the lungs and fluid sits in or around the lungs. When an arrhythmia is present, additional medications need to be added to control the heart rate and rhythm. There are other treatments that may be tried only when approved by a cardiologist. In the cases of DCM caused by a nutrient deficiency, the disease can often be reversed when that nutrient is supplemented.

What is the prognosis for DCM?

Unfortunately, DCM is often a fatal condition that cannot be cured or reversed. Once the dog starts becoming congested (Congestive Heart Failure), the prognosis worsens. The survival time once there are signs of congestion is 6 months to 2 years. In Doberman Pinschers, the prognosis is even worse, with death occurring in 1-3 months after signs of congestion appear. If there is an underlying cause that is treatable, such as an infectious or nutrient deficiency, then the prognosis is often good if treatment is begun as soon as possible.

References:


