



EAST COAST VETERINARY CARDIOLOGY

Feline Dilated Cardiomyopathy

Dilated cardiomyopathy (DCM) is a type of heart muscle disease where the contractility (strength) of the heart muscle is reduced, leading to secondary dilation of the heart. In affected animals, all four chambers of the heart can significantly dilate with thinning of the walls of the pumping chambers, the ventricles. In cats, DCM was much more common about 30 years ago before it was identified that cats require taurine supplementation to commercially prepared diets. Taurine is an amino acid which is important for function of the heart muscle. Unlike other species, cats cannot synthesize taurine on their own – they require it from their diet. Unfortunately diets in the past did not contain enough taurine leading to DCM in cats. Once this correlation was identified, taurine levels were increased in feline diets and since that time, DCM is an uncommon diagnosis in cats. Some cats who are eating a homemade diet or an exotic diet can still be at risk for DCM related to taurine deficiency if the diet is not nutritionally balanced.

DCM is diagnosed via echocardiography (heart ultrasound), often after a cat presents with signs of heart failure. If a cat is diagnosed with DCM not related to taurine deficiency, a possible consideration is that it represents the end-stage of a previous cardiomyopathy such as hypertrophic cardiomyopathy (HCM). In some cats, it can be related to a previous myocardial insult such as a toxin or virus.

The prognosis for cats diagnosed with DCM is guarded, with survival times of less than 4 months reported once a cat progresses to congestive heart failure (CHF). CHF in cats with DCM is characterized by fluid accumulation both within the lungs and outside the lungs (pleural effusion). Pimobendan therapy may be helpful for cats with DCM as it improves the strength of contractility of the heart in dogs but studies in feline patients are lacking. When pimobendan is used in cats it is considered an off-label use of this medication – there have been retrospective studies that have documented that cats tolerate pimobendan without significant side effects.

In terms of complications which may occur, cats with DCM are at high risk for blood clot formation which could then embolize to a variety of locations throughout the body, with the most common location being the arteries of the pelvic limbs causing paralysis and pain. This is called feline arterial thromboembolism. Affected cats are also at risk for arrhythmias which may increase risk for sudden death

