

INFORMATION SHEET:

Canine Dilated Cardiomyopathy (DCM)

Summary

Dilated cardiomyopathy (DCM) is a disease of the heart muscle (myocardium) that results in loss of contractility of the heart muscle (progressive myocardial failure). This progressive myocardial failure results in enlargement of the heart chambers (sometimes one side worse than the other) in association with compensatory mechanisms. Eventually heart failure occurs, with accumulation of fluid in the lungs (pulmonary oedema) and/or the abdomen (ascites).

This clinical scenario may be further complicated by the presence of abnormal rhythms of the heart (arrhythmias), which often worsen the clinical signs. Some abnormal rhythms may cause sudden death and can be particularly problematic in Boxer dogs and Doberman pinschers.

In general, DCM is seen in middle-age and older large and giant breed dogs. Males seem to be affected more commonly than females. Medium size breeds may also be affected. It is thought that both genetic and environmental factors may contribute to the risk of developing this condition.

Clinical Signs

A history of collapse, exercise intolerance, coughing, abdominal distension or rapid breathing may be noted.

Diagnostic investigations

- **Radiography** (x-ray) is performed to assess whether fluid in the lungs ('pulmonary oedema') is present or not, and to visualize heart size (which is usually very large in DCM). It is good to have a baseline to assess treatment response and give a prognosis in the follow-up situation.
- **Electrocardiography** enables us to assess heart rate and rhythm. Cardiac rhythm abnormalities ('arrhythmias') are fairly common with DCM.
- **Echocardiography** or ultrasound of the heart enables us to visualize the cardiac structures and function. This is essential for the definitive diagnosis.
- **Blood pressure** may be measured and **blood tests** may be performed to ensure medications can be safely tolerated.

Prognosis

Unfortunately, the long term prognosis for dogs with DCM is guarded with a greater than 90% mortality rate at one year.

Treatment

Therapy for DCM involves the use of drugs to reduce pulmonary oedema (congestion) if present, improve heart function, and counteraction of the hormone systems activated by the failing heart.

The following treatments may be used in some combination in your dog:

- Frusemide (Lasix[®], Urex[®]) is a diuretic to reduce fluid build-up in the lungs or abdomen
- Benazepril (Fortekor[®]) to dilate the blood vessels and counteract the hormone systems
- Pimobendan (Vetmedin[®]) to dilate the blood vessels and improve contractility of the heart
- Anti-arrhythmics (digoxin, dilatazem) may be used if there is an arrhythmia
- Dietary restrictions of salt are recommended, and maintenance of a good (but not overweight or too lean) bodyweight is best
- Short, moderate to restricted walks are advised
- Additional medications or nutritional supplements may be suggested in particular circumstances

Follow up

- Regular check-ups are needed to check heart rhythm as well as the effectiveness and safety of the medications prescribed.
- We generally recommend a check-up within 2 weeks of initial diagnosis and stabilisation, and then again 2-4 weeks later
- Subsequent check-ups should be every 3-4 months

When to contact your veterinarian

You should contact your veterinarian if your pet shows any of the following:

- Increased difficulty coping with short walks
- Increased coughing
- Poor appetite or excessive listlessness

If your pet shows any of the following, then **urgent** veterinary attention should be sought:

- Rapid breathing
- Collapse
- Purple tinged gums or open-mouthed breathing