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Congestive Heart Failure in Dogs

Did you know...?

- Heart disease affects 25% of dogs over 7 years of age¹
- Myxomatous Mitral Valve Disease (MMVD), also known as endocardiosis, accounts for around 75% of all cases of congestive heart failure in dogs²
- Older, small breed dogs, including Cavalier King Charles spaniels, Poodles, Chihuahuas and Dachshunds are most commonly affected by congestive heart failure arising from MMVD
- Dilated Cardiomyopathy (DCM) is the other main type of heart disease
- Currently there is no cure for congestive heart failure in dogs arising from MMVD

What is MMVD?

MMVD is an asymptomatic and slowly progressive condition that leads to congestive heart failure. It is associated with the chronic thickening of the cusps of the mitral valve, which is located in the left side of the heart. The function of the mitral valve is to ensure that blood flows in the right direction. It does this firstly by channelling the flow of blood from the left atrium into the left ventricle, and secondly by forming a seal between the two chambers to avoid blood being pushed back from the ventricle into the atrium.

When the cusps of the mitral valve thicken, however, they fail to form a complete seal, allowing blood to leak back into the atrium as the ventricle contracts. The effects of this overload in the atrium are that fluid leaks out of the blood vessels into the lungs (known as pulmonary oedema), and the flow of



blood out of the heart to the rest of the body slows down, reducing blood flow to key organs in the body resulting in the symptoms of congestive heart failure.

What are the symptoms of MMVD?

While MMVD itself is an asymptomatic condition, some of the symptoms of congestive heart failure arising from MMVD include:

- Coughing
- Reduced tolerance for exercise
- Anxiety and restlessness during the night
- Laboured breathing

Some or all of the symptoms above may appear, and all impact on the dog's quality of life. In severe and advanced cases of congestive heart failure, there may also be fainting and collapsing.

How is MMVD diagnosed?

The diagnosis of MMVD is usually preceded by the detection of a heart murmur during routine veterinary check-ups using a stethoscope. However, although stethoscope findings may be suggestive of congestive heart failure, a veterinarian will also rely on the following tests to detect MMVD:

- Radiographs (x-rays): to check for any enlargement of the heart or fluid accumulation in the lungs²
- Echocardiography (ultrasound): to show any thickening of the heart valve edges² or enlargement of the chambers of the heart.

By contrast, electrocardiographs (which measure electrical activity in the heart) are of limited use in the diagnosis of MMVD.

How is MMVD managed?

Treatment of MMVD-based congestive heart failure generally takes place when clear symptoms of heart failure emerge,² and is tailored for the individual canine patient and their owner.



Since surgery to prevent further deterioration is rarely possible in canine patients, management of heart failure seeks to improve quality of life and therefore extend life expectancy², usually through daily medication.

What are the other common forms of congestive heart failure in dogs?

Dilated cardiomyopathy (DCM) is a major form of myocardial disease in dogs. In DCM the heart muscle becomes thin and weak, which means that the heart's contractions become weaker and the supply of blood to the body is compromised. Unlike MMVD this is a rapidly progressive disease which affects large and medium-sized dogs such as the Doberman pinscher, Great Dane and English cocker spaniel.³ There are a number of treatments licensed for dogs with DCM, with early diagnosis and intervention offering the most benefits.

Is there a cure for congestive heart failure in dogs?

Currently there is no cure for congestive heart failure in dogs caused by MMVD. Treatments are available, however, to help dogs live a longer and more comfortable life. The success of any treatment, however, depends on various factors, including early detection and diagnosis.

What does congestive heart failure in their dog mean for a pet owner?

Pets and their owners have an increasingly strong emotional bond, in which pets are viewed as part of the family and are provided with similar levels of care and attention. In order to safeguard and maintain their dogs' healthy hearts, owners are encouraged to take their dogs for regular visits to the veterinarian since this is where early indications of congestive heart failure (e.g. heart murmurs) can be detected. It is also important to ensure dogs get moderate exercise and eat a balanced diet, and to visit the veterinarian if a dog is experiencing coughing, lethargy or loss of appetite.

For further information on managing congestive heart failure in dogs,
please visit www.questtrial.com



References

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