

Congestive Heart Failure (Right Sided)



BASIC INFORMATION

Description

Right heart failure occurs when the right side of the heart is no longer working properly and cannot pump blood effectively to the lungs and left heart. Fluid accumulates in the abdomen and the chest. Eventually, if right heart failure is not treated, breathing is affected and death may occur.

Causes

A number of diseases can cause right heart failure in dogs:

- Atrioventricular valve degeneration of the right (tricuspid) valve
- Dilated cardiomyopathy, mainly in large- and giant-breed dogs
- Chronic heartworm disease
- Some congenital heart defects, such as tricuspid dysplasia, ventricular septal defect, and atrial septal defect

A disease that can mimic right heart failure is pericardial effusion. If a large amount of fluid builds up in the pericardial sac around the heart, the right heart does not fill properly, and fluid may accumulate in the abdomen.

Clinical Signs

Dogs with right heart failure cannot exercise. They develop abdominal distention and loss of muscle mass, which can be so severe that the back bones and ribs become prominent. When the abdomen is full of fluid, the dog may not be comfortable lying down and may breathe faster (more than 50 times per minute), with increased effort.

Diagnostic Tests

Dogs in severe distress often require stabilization before many tests can be performed to evaluate the heart and other organs that depend on normal heart function. Tests may include the following:

- Chest and abdominal x-rays
- Echocardiogram (heart ultrasound)
- Electrocardiogram (ECG), especially if an irregular rhythm is detected
- Laboratory tests, including a heartworm test, CBC, Organ Function and Thyroid Tests

TREATMENT AND FOLLOW-UP

Treatment Options

If there is a significant amount of fluid in the chest, it is usually removed so that the dog can breathe easier. Fluid may also be removed from the abdomen and from the pericardial sac to make the dog more comfortable.

Dogs with moderate to severe right heart failure may be hospitalized for stabilization with injectable diuretics (such as furosemide) and oxygen therapy. Once the dog is stable, oral medications are started. Which medications are chosen depends on the disease causing the right heart failure. Choices include the following:

- Furosemide (*Lasix*) diuretic is usually continued indefinitely and may be combined with other diuretics, such as spironolactone (especially to keep fluid levels low). Dosages are adjusted to the lowest ones that keep the dog out of heart failure.
- Angiotensin-converting enzyme (ACE) inhibitors, such as enalapril, benazepril, or ramipril, may be used to improve the quality of your dog's life and help reduce fluid retention by the body. Their effects are not immediate, but they exert modest positive effects over weeks to months.
- Pimobendan is a newer drug that acts as a vasodilator to relieve the workload of the heart and to increase the force of contractions of the heart. Pimobendan is commonly used with other medications, such as diuretics and ACE inhibitors. It has shown excellent results in many cases.
- Digoxin is used in some dogs that have moderate to severe heart failure and very fast heart rates secondary to abnormal rhythms, such as atrial fibrillation.
- Beta-blockers, such as carvedilol, are being investigated to determine whether they can improve the quality of life in dogs with heart disease. Beta-blockers are also used to slow the heart rate secondary to atrial fibrillation.
- Occasionally, other classes of drugs, such as calcium channel blockers, may be needed to control high heart rates caused by atrial fibrillation.

In addition to drug therapy, dogs with heart failure should not be fed salty foods, and low-salt diets may be used to limit salt intake. Although strenuous exercise should be avoided, mild exercise may be done based on guidelines from your veterinarian. If heartworm disease is present, it will be treated once the right heart failure is stable.

Follow-up Care

Intensive monitoring is often needed during hospitalization.

Follow-up visits are usually scheduled within 7-14 days after discharge.

Recheck visits may include chest x-rays, laboratory tests, and ECGs. The interval between visits and further testing depends on the underlying disease and how your dog responds to medications.

Periodic monitoring is needed for the life of your dog. Notify your veterinarian if any signs of heart failure return while the dog is on therapy.

Prognosis

Most dogs with right heart failure have an average life span of 6-12 months; however, survival time is dependent on the underlying cause.

CLIENT INFORMATION SHEET

HEART FAILURE or CONGESTIVE HEART FAILURE

Congestive heart failure means the heart is no longer properly pumping all the blood in the correct direction and that fluid is pooling in the lungs and/or abdomen.

Signs may include abdominal distention, restlessness, weakness, rapid and/or shallow breathing and loss of energy or stamina.

Diagnosis is critical before starting pets on medication and will usually involve X-rays, organ screening and EKG analysis. Some clients may opt to visit a veterinary cardiologist.

Treatment usually means medication like vetmedin, enalapril and lasix but sometimes other medications may be used.

Medication **will not cure** the disease but will help to **lessen symptoms** and prevent against side effects of the disease. Medication generally improves your pet's quality of life and lengthens his or her life as well. **NEVERTHELES**, it is very important to understand that this is ultimately a terminal disease and will likely progress over time.

Medications can cause (mild) side effects although most pets tolerate the medications well and have a much better quality of life.

After starting medications and **your pet will require lifetime medication** and monitoring with regular lab work. (usually every 4 months)

Most pet owners are happy they treat this disease as they will see their pet acting more normally and feeling more comfortable while on the medications.