

What is ARVC?



ABOUT THE DISEASE

Arrhythmogenic right ventricular cardiomyopathy (ARVC) is a genetic heart abnormality typically detected in middle-aged-to-older Boxer dogs. In dogs with ARVC, the right pumping chamber—called the ventricle—muscle of the heart is replaced by fat and sometimes fibrous tissue. This can cause abnormal heart rhythms which, when severe, can result in lethargy or collapse associated with excitement or exercise. In very severe cases, sudden death can occur.

Some dogs with ARVC can also develop Dilated Cardiomyopathy (DCM), a more severe form of ARVC. DCM is a condition whereby the heart muscle becomes weak and dilated. In severe cases, this can result in congestive heart failure.

TREATMENT

The primary goal of treating ARVC is to control abnormal heart rhythms and prevent collapse episodes.

Unfortunately, it is not possible to completely prevent the risk of sudden death in dogs with very severe disease. The most commonly used medications are Sotalol and Mexilitine. In cases when an arrhythmia is difficult to control or when these medications are not well tolerated, additional medications may be used.



HOW WE DIAGNOSE & MONITOR ARVC

Thankfully, most dogs with ARVC feel completely normal as long as their arrhythmias are well controlled. We will work closely with you and your family vet to ensure that your dog gets the best care possible.

ELECTROCARDIOGRAM (ECG) & HOLTER MONITORING

The best way to test and screen for ARVC is with a Holter monitor. At the hospital, your dog is fitted with a vest that contains an ECG monitor. Your pet then wears the monitor at home for 24 hours. If a significant arrhythmia is detected, medications may be started based on its severity and type. Holter monitoring is then typically repeated after medications are initiated to monitor response to therapy.

ECHOCARDIOGRAM (HEART ULTRASOUND)

Since some dogs with ARVC can develop Dilated Cardiomyopathy, an echocardiogram may also be recommended, especially if your pet has a heart murmur. This heart ultrasound is the best way to evaluate heart structure and function. Because some antiarrhythmic medications can affect heart function, it is also important to perform an echocardiogram prior to starting these medications.

GENETIC TESTING



DID YOU KNOW?

ARVC is inherited through a genetic mutation. There is a test for the striatin mutation; however, dogs that test positive for the mutation will not necessarily develop significant ARVC. Dogs with two copies of the mutation are more likely to develop significant heart disease. Genetic testing is not typically recommended for household pets but can be a useful screening tool for breeders.

FOLLOW-UP & AT-HOME CARE

Once your dog's cardiologist determines that the disease is well controlled, repeat Holter monitoring is typically recommended at least twice a year. An echocardiogram may also be recommended periodically.

It is important to remember that your pet is at greatest risk of having an episode during extreme exercise. In dogs with severe ARVC, highly strenuous activities should be limited. Contact us immediately if your pet develops collapse or fainting episodes with exercise, as these episodes can signal worsening arrhythmias.



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