



SKILLMAN - (214) 887-1400

1910 Skillman Street
Dallas, TX 75206

OAK CLIFF - (214) 939-1600

1021 Fort Worth Avenue
Dallas, TX 75208

WHITE ROCK - (214) 324-1500

7446 East Grand Avenue
Dallas, TX 75214

HOW EPIC STUDY RESULTS MAY HELP YOUR DOG WITH HEART DISEASE

Lauren Strazdis, DVM

The most common cause of heart disease and heart failure in dogs is chronic degenerative valvular disease (CVD). The mitral valve is usually the valve that degenerates, or becomes weaker, over time in a patient with CVD. The mitral valve separates the two main chambers on the left side of the heart called the left atrium and the left ventricle. Its primary purpose is to open when blood needs to move from the left atrium into the left ventricle, then close when the blood needs to travel out of the left ventricle to the rest of the body. When the mitral valve degenerates, it causes blood to be backed up in the heart chambers and the heart becomes enlarged. The specific name for this type of CVD is myxomatous mitral valve disease (MMVD).

Older, small breed dogs are most likely to be diagnosed with MMVD, but this condition can occur in large breed dogs as well.

MMVD affects:

- 10% of dogs between the ages of 5-7 years
- 20-25% of dogs between the ages of 9-12 years
- 30-35% of dogs over 13 years old

In the early stages, dogs with MMVD will most likely show no clinical signs. MMVD is usually uncovered when a veterinarian hears a heart murmur through a stethoscope. A heart murmur indicates abnormal turbulent blood flow within the heart. Radiographs (x-rays) of the chest and/or an echocardiogram (ultrasound of the heart) are typically recommended to identify the likely cause of a heart murmur. If MMVD is the reason, the patient is then classified into different stages depending on the size of their heart and clinical signs.

Stage A represents dogs who do not have a heart murmur but are more at-risk for MMVD due to their breed. Some breeds with predisposition to developing MMVD include Cavalier King Charles Spaniels, Chihuahuas, Miniature Poodles, Miniature Pinschers, Fox Terriers, Boston Terriers, and Miniature Schnauzers.

Stage B1 dogs have a heart murmur with no signs of significant heart changes or enlargement on an x-ray. Stage B2 dogs have a heart murmur and do have signs of significant heart changes or enlargement on an x-ray. About 25-50% of dogs in Stage B2 will eventually develop signs of congestive heart failure. The other dogs will continue to have no heart disease symptoms for the rest of their lives. Signs of congestive heart failure include increased breathing rate, panting, coughing, lethargy, and reluctance to exercise. Dogs in congestive heart failure due to MMVD are in Stage C.

A research study called EPIC was conducted to determine if dogs with enlarged hearts (Stage B2) because of MMVD would benefit from a drug called pimobendan. This medication increases the strength of the heart's contractions and dilates important blood vessels to help blood flow through the heart. Results showed that giving pimobendan consistently to dogs in Stage B2 prolonged their time before reaching congestive heart failure (Stage C) by over 1 year. Given this information, pimobendan is now recommended for dogs with MMVD and evidence of heart enlargement.

If your pet is diagnosed with a heart murmur, radiographs (x-rays) and/or an echocardiogram (ultrasound of the heart) may be recommended by your veterinarian to evaluate heart size and function. Gathering this information is especially important in dogs with no MMVD symptoms because starting pimobendan early can make a significant difference in prolonging the chance of heart failure. It is important to follow your veterinarian's recommendations when it comes to addressing any possible heart disease to ensure your dog has the longest and healthiest life possible. 