Mitral valve dysplasia (MVD) is a malformation in the valve on the left side of the heart. This valve is located between the left atrium and left ventricle. The valve works to keep blood flowing in one direction. When this valve is malformed backflow of blood from the ventricle into the atrium may occur.

This backflow of blood is called regurgitation. There can be minor malformations that result in a small amount of regurgitation or the valve can be severely malformed and there can be large amounts of regurgitation.

Echocardiography is the best way to definitively diagnose this disease and detect the severity of the regurgitation.

MVD is a congenital disease, meaning that the dog was born with the misshapen valve. MVD is most commonly seen in Bull Terriers, Great Danes, Mastiffs, but can also be seen in many breeds of dogs including Borzois, Rottweilers, and German shepherd dogs. Other large breed dogs are also affected.

What should be expected now?

Some dogs can live many years with mitral valve dysplasia if they are only mildly affected, based on echocardiographic findings. These dogs may need to take certain precautions such as avoiding repeated periods of strenuous exercise or exposure to extreme humidity and high temperature. Conversely, dogs with a more severe disease may only live for a few months after diagnosis, even if they seem perfectly normal at the time of diagnosis.

As an owner of a dog with MVD, it is important to monitor your pet closely for signs that are suggestive of disease progression. It is a good idea to keep a ‘daily’ journal and put in it both observations of your pet’s behaviour as well as resting respiratory rates. If you notice a respiratory rate above 40 breaths per minute while your dog is resting, please call your veterinary surgeon or the ASVS cardiology service and let us know. Also, if you notice episodes of exercise intolerance, fainting, or difficulty breathing, please call us immediately; we may need to see your dog right away, as these may be signs that your pet is developing congestive heart failure (CHF).

The only possible cure for MVD is valve replacement surgery, which is only currently available at a few veterinary institutions. Medical treatment is also available to control clinical signs of CHF if this develops. Unfortunately, CHF cannot be cured and eventually medications will stop being effective.

Because MVD is an inherited disease, we recommend not breeding your pet. You should contact the breeder of your pet if known, so littermates can also be examined.

Schematic representation of mitral regurgitation secondary to MVD. The red arrow indicates the backflow of blood from the ventricle into the atrium.

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This handout provides a general overview on this topic and may not apply to all patients. Please do not hesitate to contact us if you require any additional information. (www.cardiospecialist.co.uk)