



Authored by: Dr Luca Ferasin DVM PhD CertVC DipECVIM-CA (Cardiology) MRCVS, European & Specialist in Veterinary Cardiology

Chronic Degenerative Valvular Disease

What is Chronic Degenerative Valvular Disease?

Chronic Degenerative Valvular Disease, also known as endocardiosis, myxomatous valvular degeneration, or chronic valvular insufficiency is a chronic, degenerative process that affects the valves in the heart, primarily the atrioventricular valves (mitral & tricuspid valves). These valves prevent the back flow of blood from the ventricles into the atria during heart contractions. The result of this degenerative process is that the affected valves become thickened and irregular or thin and dysfunctional and will no longer close properly. Blood is then allowed to flow back (regurgitation) into the atria, causing the heart to work harder by pumping additional blood volumes. This valvular regurgitation is a chronic problem, which unfortunately, continues to progress. This is a disease found mostly in middle-aged and older dogs. Smaller breed dogs are more commonly affected than large breed dogs. Cavalier King Charles spaniels are prone to very early onset of this disease. The most common problem seen with dogs with mitral and/or tricuspid regurgitation, is atrial dilation and, eventually, congestive heart failure (CHF). There is a wide variation in how rapidly the disease progresses. Some dogs continue to live normal lives and never develop



clinical signs while others progress into congestive heart failure. CHF is the condition in which fluid begins to accumulate within the lungs secondary to excessive fluid within the blood. During heart disease, the heart is unable to pump adequate amounts of blood out to the rest of the body. This results in compensatory mechanisms that act to increase blood volume so that the body can receive adequate blood flow. Initially, this process is able to compensate for the failing heart. As the underlying heart disease progresses, blood volume will continue to increase in attempt to maintain compensation. Eventu-

ally, blood volume will increase to the extent that fluid begins leaking out of the vessels. Usually, fluid leaks out into the lungs causing respiratory distress (fast and difficult breathing) because the fluid hinders oxygen absorption across the lungs. Other clinical signs can develop with the onset of congestive heart failure, such as exercise intolerance, fainting, restlessness at night, inappetance and weight loss. The disease can eventually progress into “right-sided” CHF, which is characterised by liver congestion and accumulation of fluid in the abdomen (ascites).

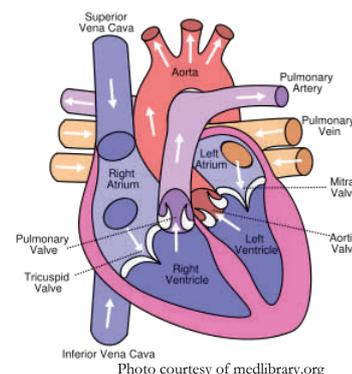
Diagnosis is made using various imaging modalities. These include chest radiographs and echocardiography (ultrasound of the heart). Electrocardiography (ECG) is often recorded to evaluate the presence of an irregular heart rhythm (arrhythmia) which may exacerbate the clinical signs.

What should be expected now?

There is no therapy that would act to slow or treat this process except for valve reconstruction or replacement surgery. Currently, these procedures are being performed at some specialist centres at a cost of approximately £6,000-£8,000. The short-term results of these new procedures are very promising but unfortunately there are no long-term results available.

Therapy only provides symptomatic relief by controlling congestive heart failure, if necessary.

Many dogs with advanced degenerative valvular disease and CHF can be maintained for months to years with appropriate therapy. However, frequent evaluations and medication adjustments become necessary as CHF progresses.



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)