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## **CARDIOLOGY UPDATE - OCCULT CHRONIC MITRAL VALVE DISEASE (CMVD)**

**INTRODUCTION: Treating asymptomatic (pre-clinical/occult) heart disease due to CMVD or DCM in dogs:**

In both chronic mitral valve disease (CMVD) and dilated cardiomyopathy (DCM), the goal of therapy in the preclinical stage is to delay the inevitable progression to clinical heart failure (a.k.a overt, or symptomatic, including sudden death). In 2009, the American College of Veterinary Internal Medicine (ACVIM) published a consensus on stage-based treatment of CMVD. There is no such consensus for DCM, though various medications have been tested in both retrospective and prospective trials. The purpose of this VEC SOUTH – CARDIOLOGY UPDATE is to summarize the current recommendations on pharmacological management of the pre-clinical (a.k.a. occult, or asymptomatic) stages of CMVD and DCM.

### **Part 1: OCCULT CHRONIC MITRAL VALVE DISEASE**

The ACVIM models their CMVD classification system after that of the American College of Cardiology/American Heart Association (Atkins et al, 2009). Asymptomatic patients are categorized under Stage B – those dogs with structural heart disease (e.g. typical murmur of mitral valve regurgitation is present), but no clinical signs. These occult CMVD patients are further divided into Stage B1 and B2 in regards to treatment options. We have compiled a summary chart from this Consensus statement and from our own experience to provide your clinic with an idea of what to expect when such dogs are referred to our service.

#### OCCULT CMVD

Stage B: dogs with structural heart disease (e.g. typical murmur of mitral valve regurgitation is present), but no clinical signs

<b>STAGE B1: ASYMPTOMATIC + NO RADIOGRAPHIC OR ECHOCARDIOGRAPHIC CHANGES</b>	<b>CONSENSUS:</b> - NO MEDICATION OR DIETARY THERAPY IS RECOMMENDED. - RE-EVALUATION (RADIOGRAPHS OR ECHOCARDIOGRAM) IN APPROXIMATELY 12 MONTHS.
<b>STAGE B2: ASYMPTOMATIC + SIGNIFICANT VALVE REGURGITATION WITH SEVERE CHAMBER ENLARGEMENT</b>	<b>NO CONSENSUS – LITERATURE IS INCONCLUSIVE. MEDICATIONS MOST OFTEN CONSIDERED INCLUDE ACE INHIBITORS (ACEI) AND BETA-BLOCKERS.</b>  <b>OUR APPROACH AT VEC SOUTH:</b> - NO MEDICATIONS (SPECIFIC CMVD CASES MAY WARRANT AN ACEI OR OTHER MEDICATION FOR CONCURRENT CONDITIONS, I.E .PULMONARY HYPERTENSION OR OTHERS). - MILD EXERCISE RESTRICTION - DISCOURAGE FREQUENCY OF HIGH SALT TREATS BUT NO INDICATION FOR A SPECIAL DIET - CAUTION WITH IV FLUIDS WHEN TREATING FOR OTHER DISEASES

At the V.E.C., we recommend offering owners a referral to our cardiologist, Dr. Regan Williams, for the following conditions: dogs with new murmurs; murmurs that are increasing in intensity over time; breeds that are pre-disposed to cardiac disease; murmurs in young dogs that persist beyond six months of age OR are greater than grade 4/6 OR are continuous OR are accompanied by signs of poor growth, weakness, lethargy, or collapse. If indicated, an echocardiogram and/or ECG can be performed to assess cardiac status and provide recommendations for prognosis, therapeutics, and follow-up care with both your clinic and our service.

**If you have further questions, please do not hesitate to contact the Cardiology service at VEC South by calling 416-920-2002. The Cardiology service is generally available Monday to Thursday between 9am-5pm.**

FOR FURTHER INFORMATION, PLEASE REFER TO THE FOLLOWING:

Guidelines for the Diagnosis and Treatment of Canine Chronic Valvular Heart Disease  
 C. Atkins, J. Bonagura, S. Ettinger, P. Fox, S. Gordon, J. Haggstrom, R. Hamlin, B. Keene (Chair), V. Luis-Fuentes, and R. Stepien  
*ACVIM Consensus Statement J Vet Intern Med 2009;23:1142–1150*

**TO REFER DIRECTLY TO THE CARDIOLOGY SERVICE OR TO BOOK AN APPOINTMENT WITH ANY VEC SPECIALIST PLEASE CALL (416) 920-2002**

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