Dilated Cardiomyopathy (DCM) - Screening

Background

1) **Breed Predispositions:** - most common in large and giant breed dogs: Dobermans, Boxers, Great Danes, St. Bernards, Scottish Deerhounds, Irish Wolfhounds, Boxers, Newfoundland, Afghan Hounds, Dalmations, Portuguese Water Dogs - also seen in smaller breeds: English and American Cocker Spaniels, Whippets, English Bulldogs and others. Genetic component suspected.

2) **Definition:** DCM is a condition in which the left ventricular chamber of the heart becomes dilated, stiff and non-compliant and loses its ability to contract (pump) effectively - somewhat like an overstretched rubber band. DCM is often a silent killer. Heart murmurs are typically soft and not present until late in the disease process. Abnormal heart rhythms are frequent and often life threatening - commonly resulting in sudden death in some breeds. The condition often progresses to left and right sided heart failure. Early medical intervention can help. Therefore, early screening is highly recommended.

3) **Screening Recommendations (1)**

**Gold Plan:** Annual evaluation starting at 3 years of age to include: -- exam, radiographs, echocardiogram (echo), Holter, one time genetic test (PDK4)

**Silver Plan:** Annual evaluation starting at 4 or 5 years of age to include: -- exam, echo, 3 to 5 minute ECG, 1 time genetic test

**Bronze Plan:** Annual evaluation starting between 3 and 5 years of age to include: -- exam, NTproBNP, high sens. Troponin I 3 to 5 minute ECG, 1 time genetic test

Note that if any of the screening tests, at any level, are suspicious for DCM, a full evaluation to include chest x-rays, echocardiogram and Holter is indicated.

5) **Prognosis:** Prognosis is somewhat breed dependent. Early medical intervention during the occult stage of DCM (no clinical signs) in a large study of Dobermans (PROTECT study) revealed delayed onset to heart failure and trends toward improved overall survival times.

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(1) Prospective Evaluation of NT-proBNP, High Sensitivity Troponin I and PDK4 for the Detection of Occult DCM in 225 Doberman Pinschers
S. Gordon; et al.