

Dilated Cardiomyopathy and Troponin-I
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Diagnosing the early beginnings of heart disease in Doberman Pinschers is difficult, and usually involves expensive ECG, ultrasound, and x-ray testing. Other organ systems, such as the kidney and liver, benefit from blood-based testing of substances that indicate the functionality of these organs. For instance, blood urea nitrogen (BUN) is a substance present in high quantities in the blood when the kidneys are not functioning correctly. To help determine the state of kidney function in a particular dog, a veterinarian can do a relatively non-invasive and rapid test by submitting a blood sample for analysis.

Dilated cardiomyopathy continues to be a devastating disease in the Doberman Pinscher breed. Detection of early (occult) disease is very difficult and expensive. New blood tests may provide a way for veterinarians to test for underlying abnormalities, just as we do for other organs. Troponin-I is a component of the cardiac muscle and is released into the blood stream in response to cardiac damage. We have found that troponin-I levels are significantly increased in dogs with symptomatic heart disease versus a normal population. We have also detected high levels in dogs with asymptomatic disease. In these dogs, we found evidence of DCM on ultrasound and ECG examination, and also discovered that their troponin-I levels were elevated. Of great interest to us is whether or not the troponin-I blood test can be used as a screening tool for Dobermans.

The author is currently performing testing of a large number of Dobermans at the University of Illinois College of Veterinary Medicine, and hopes to be able to report the results of this study within the next year. The advantages of a blood-based heart disease test include greater availability and much reduced cost compared to cardiac ultrasound and ECG monitoring. On May 10-11, 2003, the College of Veterinary Medicine will be hosting a Doberman Health Conference for pet owners and breeders. This two-day weekend event will feature presentations about various health-related topics particular to Dobermans, including cardiac disease, hypothyroidism, cervical instability, nutrition, behavior, and holistic medicine. In addition, all dogs that register will be able to participate in a cardiac screening examination (ECG, ultrasound, blood test). Additional information about this event can be obtained by going to the Illinois-CVM website (www.cvm.uiuc.edu).

Towards healthier Dobs everywhere,

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