AMERICAN KENNEL CLUB
CANINE HEALTH FOUNDATION
PREVENT TREAT & CURE

GRANT PROGRESS REPORT SUMMARY

Grant: 01859-A: *Evaluation of Occurrence of Ventricular Arrhythmias in Normal Saluki Dogs*

Principal Investigator: Dr. Robert A. Sanders, DVM

Research Institution: Michigan State University

Grant Amount: $12,723.00

Start Date: 7/1/2012 **End Date:** 9/30/2013

Progress Report: End-Year 1

Report Due: 9/30/2013 **Report Received:** 9/23/2013

Recommended for Approval: Approved

(Content of this report is not confidential. A grant sponsor's CHF Health Liaison may request the confidential scientific report submitted by the investigator by contacting the CHF office. The below Report to Grant Sponsors from Investigator can be used in communications with your club members.)

Original Project Description:

Ventricular arrhythmias are caused by abnormal electrical activity in the ventricles. In people and dogs ventricular arrhythmias are known to cause significant clinical signs and or sudden death. Identification of these arrhythmias requires monitoring of the heart rate and rhythm. As ventricular arrhythmias may not occur during any given short period they may not be detected on a standard surface electrocardiogram (ECG). Furthermore a brief ECG may not fully evaluate the true frequency and complexity of detected ventricular arrhythmia. Consequently, longer term monitoring is required for reliable detection and complete characterization of ventricular arrhythmias. Holter monitors can be placed that will record heart rate and rhythm for up to seven days. Certain dog breeds including Boxers and Doberman Pinchers, are known to be predisposed to the development of ventricular arrhythmias and dilated cardiomyopathy. In Doberman Pinchers ventricular arrhythmias detected by Holter monitoring can predict the future development of DCM prior to any other changes. Little is known about rate of occurrence of ventricular arrhythmias in Saluki dogs, but they are thought to be predisposed to ventricular arrhythmias and the development of DCM as well. We propose to place Holter monitors on 25 normal Saluki dogs to evaluate the frequency and complexity of ventricular arrhythmias that may occur in Salukis.

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Grant Objectives:

To determine the frequency and complexity of ventricular arrhythmias in apparently normal Saluki dogs.

Publications:

Manuscript in Preparation.

Report to Grant Sponsor from Investigator:

We have completed the data collected on 25 normal Saluki dogs in this study. All dogs included in the study were found to be normal on physical examination and had no significant abnormalities noted on an echocardiogram performed by a board certified veterinary cardiologist. Ambulatory electrocardiogram monitors (Holter monitors) were placed on the Salukis and data was collected for multiple days. The Holter data from the 25 dogs have been completely analyzed and reviewed at this time.

We are in the process of manuscript preparation. This manuscript will have descriptive results of the Holter data including pauses in the normal heart rhythm (sinus pauses), frequency of ventricular arrhythmias, presence of heart block and any other unusual findings. This will establish normal parameters (min/max/mean, sinus pause length, occurrence of heart block, occurrence and frequency of ventricular arrhythmias) for Saluki dogs. These data are important, as it will provide a basis for comparison when evaluating Salukis with significant heart disease. Further studies are being planned to determine if Holter monitoring can be used to predict the development of cardiomyopathies in Saluki dogs.