



Cairo University  
Faculty of Veterinary Medicine  
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# Diagnostic Study of Selected Types of Cardiac Arrhythmias of Dogs

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(M.V. Sc. Cairo University 2015)

For The Degree of Ph.D.

**(Internal Medicine)**

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## **SUPERVISION SHEET**

**Thesis title:**

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### **ABSTRACT**

Cardiorespiratory diseases represent a large proportion of the internal medicine cases in small animal practice. About one tenth of small animal patient in daily practice suffer from cardiac disease. Electrocardiogram serves as an indispensable tool in evaluating cardiac patients. In this study we formulate three research experiments, First, we used 22 German shepherd puppies with Canine parvovirus type 2 . The purpose of this study was to evaluate the prognostic usefulness of epidemiological, hemato-biochemical and electrocardiogram (ECG) findings in German shepherd puppies with canine parvovirus (CPV). Mortality rate among these puppies was twenty-seven percent. This study suggested that age, platelet count, serum potassium, and T-wave length are useful for predicting the final outcome of hospitalized German shepherd puppies with CPV. Second experiment was done evaluate changes of electrocardiogram associate with degenerative mitral valve disease (DMVD). Sixteen dogs were enrolled in this study. 10 dogs suffered from DMVD and 6 dogs used as a control group. Forty percent of diseased dogs have left atrial enlargement (LAE) , on ECG, 6 dogs have abnormal P wave (increase in width or bifid or increase in both width and length). J wave didn't show up in any control dogs while appeared four times within DMVD dogs. Troponin-I was positive in 4 occasions all were diseased. J- wave didn't show any significance with any disease parameter except age suggesting its age related appearance even without any disease. Last study were done to evaluate the influence of epidemiological data upon the appearance of J-wave in healthy dogs. For this purpose, 50 dog of both sexes were enrolled, J-wave didn't showed any significant difference regarding sex and breed of examined dogs. In conclusion prominent J wave assumed to be a normal component of ECG trace in geriatric dogs.

**Keywords:** Canine parvovirus, cTn-I, prognosis, ECG, DMVD, J-wave, Geriatric dogs



# *DEDICATION*

*I dedicate this work to my parents,  
siblings, my wife for all the support  
they lovely offered during my post-  
graduate studies.*





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