

17. **ROLE OF ELECTROCARDIOGRAPHY IN DIAGNOSIS OF CANINE CARDIAC ARRHYTHMIAS - A CASE REPORT**

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Electrocardiography is a useful diagnostic tool in veterinary medicine. An electrocardiogram (E.C.G.) is quickly and easily recorded and interpreted. Also the information obtained is reliable. It is essential in the diagnosis and treatment of cardiac arrhythmias.

A 7-year-old female Dalmatian was referred to the Veterinary Teaching Hospital with a history of gradual loss of appetite, polydipsia, a dry cough and with enlarged abdomen. On clinical examination rectal temperature was 101 °F. Heart rate and arterial pulse rate were 124 beats/min. The oral and ocular mucosae were pale. The other symptoms included congested lungs, splenomegaly and hepatomegaly. Abnormal heart sounds also were detected on auscultation.

An electrocardiogram was recorded and a lead II rhythm strip recorded at a paper speed of 25 mm/sec and sensitivity of 1 cm = 1 mV, is presented in this report. Cardiac rhythm was irregular due to the occurrence of unifocal ventricular premature complexes (VPCs). VPCs were not associated with P waves and were characterized by bizarre QRS complexes with large amplitude. The major QRS deflection was negative. In addition to VPCs, P waves may have been replaced by baseline F waves suggesting the presence of atrial flutter.

VPCs are mostly associated with cardiac abnormalities such as congestive heart failure, pericarditis, cardiomyopathy or myocarditis. Atrial flutter can be associated with chronic mitral valvular fibrosis, ruptured chordae tendinae, or ventricular pre-excitations.

Subject showed a considerable improvement with digoxin therapy. But sudden death occurred after a week following hypothermia and dyspnoea. Necropsy revealed cardiomegaly, blood tinged pericardial fluid, left atrioventricular valvular endocardiosis and thinning of ventricular walls.