

9-1-2003

ECG Quiz

Chollada Buranakarl

Kris Angkanaporn

Suwanakiet Sawangkoon

Follow this and additional works at: <https://digital.car.chula.ac.th/tjvm>



Part of the [Veterinary Medicine Commons](#)

Recommended Citation

Buranakarl, Chollada; Angkanaporn, Kris; and Sawangkoon, Suwanakiet (2003) "ECG Quiz," *The Thai Journal of Veterinary Medicine*: Vol. 33: Iss. 3, Article 11.

Available at: <https://digital.car.chula.ac.th/tjvm/vol33/iss3/11>

This Other is brought to you for free and open access by the Chulalongkorn Journal Online (CUJO) at Chula Digital Collections. It has been accepted for inclusion in The Thai Journal of Veterinary Medicine by an authorized editor of Chula Digital Collections. For more information, please contact ChulaDC@car.chula.ac.th.

ECG Quiz

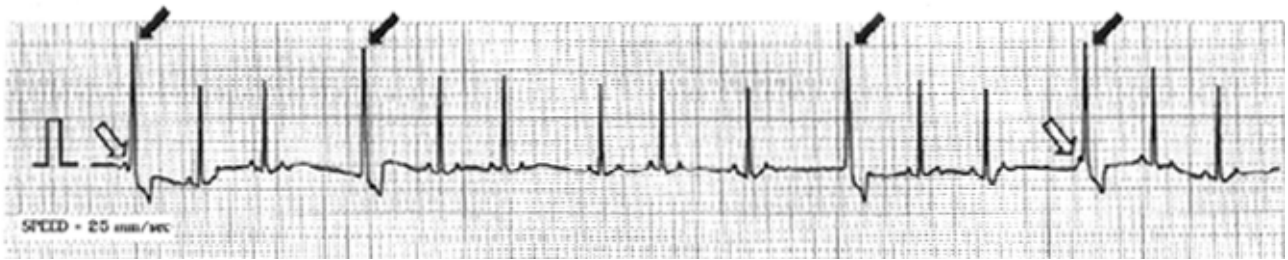
Chollada Buranakarl* **Kris Angkanaporn¹** **Phiwipa Kamonrat²**



This lead II ECG strip was recorded from a 4 year-old, male, Golden Retriever, weighing 37 kg, with a history of bilateral hip dysplasia, periodic coughing and panting. The dog did not stand on either of its hind limbs. Physical examination revealed a normal body temperature and pink mucous membranes. A thoracic radiograph showed a right atrial enlargement with a mild diffused interstitial infiltration of the lungs. The abdominal

radiograph showed urine retention in the bladder. Blood chemistry profiles depicted an increased serum ALT and low BUN levels. The complete blood count was within normal limits.

Please make your interpretation before turning to the next page.



Respiratory sinus arrhythmia with ventricular escape beats

The ventricular escape beats are shown by arrows. The heart rate is 87 beats/min while the ventricular escape beats are only 23 beats/min. The bizarre QRS complexes occur late rather than prematurely, thus causing the escape beats to be called. The escape beats are of ventricular origin which is close to the bundle of His, since the complexes appear to have an upward deflection. Variable PR intervals are noticeable and atrioventricular blocks are seen with the non-conducting P waves before the first and last escape beats (open arrows). A slow pacing from the SA node, which may be due to a rotating vagal tone, is a

cause of the escape beats. Possible causes of arrhythmia may be due to chronic valvular endocardiosis, cardiomyopathy or myocarditis. While the thoracic radiograph showed a right atrial enlargement, echocardiography should be used to confirm. The dog should also be monitored for a possible progressive heart disease (such as syncope or exercise intolerance) and a serial ECG should also be performed. Treatment for arrhythmia need not be initiated while cardiac output remains adequate.