

6-1-2009

ECG Quiz

Chollada Buranakarl

Kris Angkanaporn

Winai Chansaisakorn

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 Chansaisakorn, Winai (2009) "ECG Quiz," *The Thai Journal of Veterinary Medicine*: Vol. 39: Iss. 2, Article 10.

DOI: <https://doi.org/10.56808/2985-1130.2170>

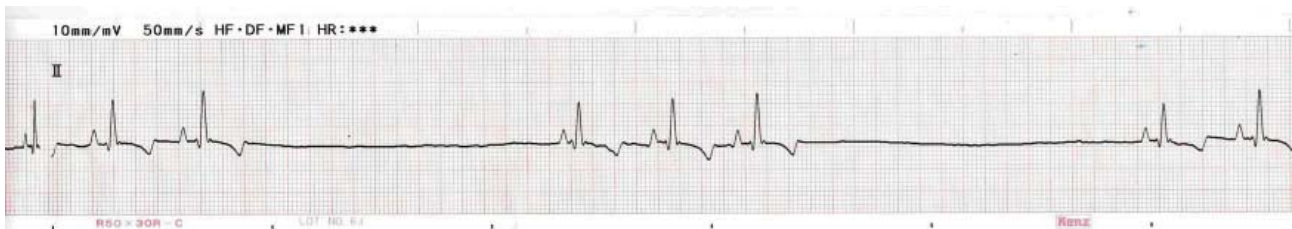
Available at: <https://digital.car.chula.ac.th/tjvm/vol39/iss2/10>

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^{1*} Kris Angkanaporn¹

Winai Chansaisakorn²



This lead II ECG strip was recorded from a 8 years old, female, ShihTzu dog, weighing 7.2 kg. The dog had exercise intolerance, polydipsia and polyurea and enlargement of abdomen. Thoracic radiograph revealed whole heart enlargement with vascular and interstitial pattern of lung lobes. Abdominal radiograph showed left renal calculi and hepatomegaly. Serum chemistry profiles

revealed increased SGPT (130 units) and ALP (880 units). Complete blood count was within normal limits. Abdominal ultrasonography showed a marked bilateral adrenal hyperplasia and tumor mass with evidence of hepatitis and splenitis.

Please answer before turning to the next page.

¹Department of Physiology, ²Small Animal Teaching Hospital, Faculty of Veterinary Science, Chulalongkorn University, Bangkok 10330, Thailand

*Corresponding author: bchollad@chula.ac.th

Interpretation

Respiratory Sinus arrhythmia

Heart rate is approximately 70 beats per minute. The heart rhythm is irregular and there are periods of long pause (approximately 1.5 sec) which may be confused with the sinoatrial block. However, the pattern of impulse interruption is regular and there is no escape beat right after any pauses. This evidence suggested that the long pause may not be sinoatrial arrest and the hemodynamic

is stable. The heart rate, the duration and the height of all ECG waveforms and intervals are within normal limits and the dog shows no sign of syncope. Hyperadrenocorticism and respiratory complication may be underlying problems for exercise intolerance. The clinician should be aware of respiratory problem if period of long pause is pronounced. Looking at inspiratory and expiratory pattern by clinician during ECG recording is suggested in order to confirm the cause of arrhythmia in this case.