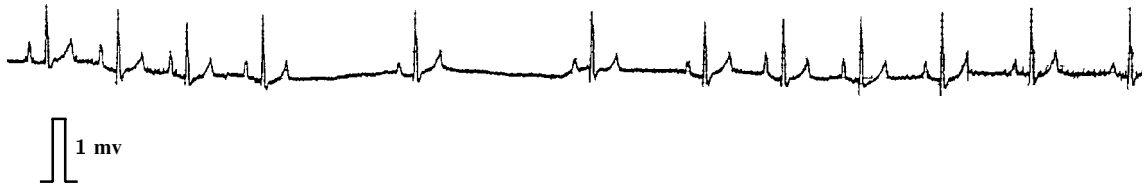


ECG Quiz

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Paper speed is 25 mm/sec

A 5 years-old, Pekingese, female dog weighing 5 kg had a history of frequent coughing and panting. Physical examination revealed a CRT of less than 2 sec. A thoracic radiograph showed enlargement of the right heart with lung congestion. Complete blood count (CBC) and serum chemistry profiles were within normal limits.

| | |
|--------------|---------------------------------|
| Heart rate | 90 beats/min |
| P wave | duration 0.04 sec height 0.3 mV |
| P-R interval | 0.12 sec |
| QRS wave | duration 0.04 sec height 1.0 mV |
| Q-T interval | 0.18 sec |

Please make your interpretation and turn to the next page.

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Respiratory sinus arrhythmia

The rhythm of the heart beat is irregular. Sinus arrhythmia represents alternating periods of slower and more rapid heart rates usually related to respiration. The heart rate accelerates during inspiration and decelerates during expiration. This is due to a changing level of vagal tone. The amplitudes of the P waves were inconsistent while

the P-R interval was constant. During the acceleration phase, the amplitude of the P wave usually increases. This phenomenon is probably due to a shift in the pacemaker indicating that the location of the pacemaker is within the SA node. This characteristic is not considered pathological and does not require treatment.