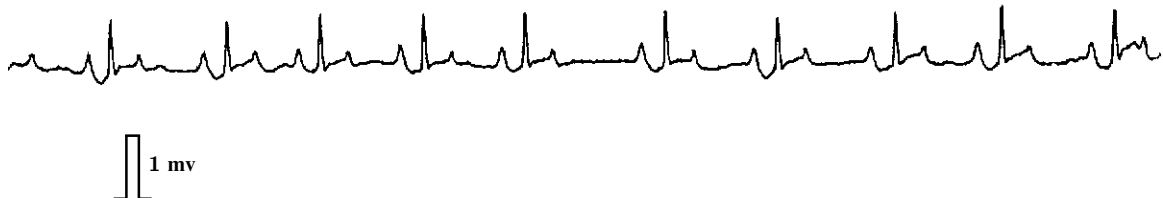


ECG Quiz

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Paper speed = 25 mm/sec

A 14 years old spayed female, mixed breed dog weighing 12.6 kg had a history of heart disease. An ECG was performed once and a first degree AV block was diagnosed. Atropine was administered twice. A mammary gland tumor was detected. Blood chemistry profiles were within normal limits.	Heart rate	100	beats/min
	P wave	duration	0.06 sec height 0.3 mV
	P-R interval	0.16 sec	
	QRS wave	duration	0.04 sec height 0.7 mV
	Q-T interval	0.16 sec	

Please make your interpretation before turning to the next page.

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Sinus rhythm with P mitrale and first degree AV block

The duration of the P wave is wider than normal (>0.04 sec) which indicates a left atrial enlargement. A first-degree AV block was diagnosed by the prolongation of the P-R interval (>0.14 sec). The P-R interval (the duration between the beginning of the P wave and the beginning of the Q wave) is

the time required for impulse transmission from the SA node, through the atrial muscle and the AV node, to the ventricular muscle. The AV node is the location where the impulse is most delayed. This delay enables the atrial muscle to contract before the ventricular muscle. A prolonged P-R interval is not considered pathological but it indicates an early degree of AV transmission blocking.