



PATIENT

Camila De Leon

SPECIES

Canine

BREED

Shih Tzu

SEX

Female Spayed

AGE

13 years

WEIGHT

8.26lbs

INTERPRETED BY

Maggie Machen Lamy,
DVM, DACVIM
(Cardiology)

IMAGING PERFORMED BY

G. Ferrer, DVM

HOSPITAL NAME

Paseos Veterinary
Center

REFERRING VET

Dr. Ferrer

INVOICE

22386

DATE

2/7/22

PRESENTING CLINICAL SIGNS

History: Previously diagnosed with cardiac problems at another veterinarian and 4 cardiac medications were started (Pimobendan, Lasix, Enalapril, and spironolactone) which the patient is currently taking. Upon recent examination, no heart murmur was auscultated.
BW: CBC: unremarkable CHEM: BUN 41 (7-27) ALT: 141 (10-25)

RADIOGRAPHIC FINDINGS *NOTE: Images submitted for supplemental cardiac information only.
Normal cardiac silhouette. No obvious evidence of CHF.

ECHOCARDIOGRAM FINDINGS

2D, m-mode, color flow and doppler imaging is available. The mitral valve is diffusely thickened with no prolapse into the left atrial lumen. Trivial mitral regurgitation with a normal left atrial dimension. Decreased LV diameter with adequate myocardial function. Mildly increased LV wall thickness. The tricuspid valve appears normal with no tricuspid regurgitation. Normal right atrial and ventricular diameter and morphology indicating no overt evidence of pulmonary arterial hypertension. The pulmonic and aortic valves are normal in morphology and mobility. Normal pulmonic and aortic outflow velocities with laminar flow. No obvious aortic or pulmonic insufficiency. No pericardial or pleural effusion noted. No obvious cardiac masses. **Occasional blocked P waves suspected on attached ECG.**

CARDIAC CHART

CANINE CARDIAC PARAMETERS	MR VMAX (m/s)	TR VMAX (m/s)	LA/AO (Boon method)	LA/AO (Heart Base; Swe)	FS (%)	EF (%)	EPSS (cm)
NORMAL PARAMETER	4.5-5.5	<2.7	1.3	<1.6	28-40	40-100	<0.6
PATIENT	NA	NA	NM	1.1	63	93	NM
CANINE CARDIAC PARAMETERS	HR (BPM)	AV VMAX (m/s)	PV MAX (m/s)	BODY WEIGHT (kg)	LA 2D short axis Base view (cm)	LVIDd Avg; 2D and m-mode short axis (cm)	LVIDs Avg; 2D and m-mode short axis (cm)
NORMAL PARAMETER	50-100	0.7-1.7	0.7-1.6	BELOW	BELOW	BELOW	BELOW
PATIENT	180	0.9	0.9	3.7	1.2	1.7	0.64
*Normal chamber parameters expressed as a mean value (SD)				3	1.27 (5.3)	2.46 (2.46)	1.36 (5.5)
BODY WEIGHT DEPENDENT PARAMETERS				5	1.40 (4.5)	2.74 (5.2)	1.60 (4.7)
<i>*Note: All measurements based upon multi-modal images and methods. An average value is reported.</i>				10	1.50 (3.8)	3.27 (3.5)	2.06 (3.1)
				15	1.83 (2.0)	3.71 (2.4)	2.43 (2.1)
				20	2.02 (1.9)	4.14 (2.2)	2.80 (2.0)
				25	2.18 (2.4)	4.48 (2.9)	3.10 (2.5)
				30	2.33 (3.3)	4.83 (3.9)	3.39 (3.4)
				35	2.48 (4.3)	5.17 (5.0)	3.69 (4.5)
				40	2.62 (5.2)	5.48 (6.1)	3.96 (5.4)
				50	2.88 (7.1)	6.07 (8.3)	4.46 (7.4)

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Overtly normal cardiac dimensions and function, with no obvious dysfunction or dilation of the left heart. The mitral valve is thickened, and a small leak is appreciated; however, this appears subclinical at this time. Follow up is advised should a murmur be ausculted. No significant valvular



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leaks are visualized, and no evidence of pulmonary hypertension. The LV has an appearance most consistent with pseudohypertrophy, likely due to unnecessary Lasix administration. A baseline **blood pressure is strongly recommended** and follow up is advised. Finally, occasional blocked P waves is noted during the study with dramatic oscillation in heart rate. If the patient was not sedated, certainly a **baseline six-lead ECG is recommended to confirm the abnormality and further assess.**

Given these findings, cardiac medications are certainly unnecessary. No historical reason for their use is listed. If a cough was present, this is/was non-cardiac in origin and primary respiratory causes are considered more likely. Should the symptom return in the future, further evaluation through repeat CXR is advised.

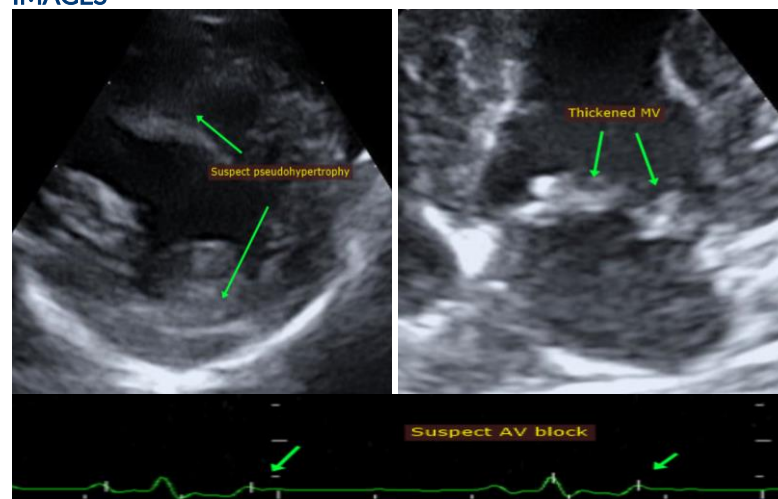
Monitor for development of a heart murmur, cough, labored breathing, exercise intolerance or collapse episodes.

PLAN

Discontinue 4 medications as discussed. A baseline BP and ECG are strongly recommended as discussed.

A recheck echocardiogram is recommended in 6-12 months to reassess LV appearance, sooner if a significant murmur develop or signs of cardiac compromise be noted.

IMAGES



The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

Thank you for this referral. This report was generated using transcription software, and minor dictation errors may be present. If the clinical or image interpretation does not parallel your findings or if I can be of any further assistance, please contact me.

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