



PATIENT

Sandy Meek

SPECIES

Canine

BREED

Maltese

SEX

Female Spayed

AGE

14 years

WEIGHT

11.8lbs

INTERPRETED BY

Maggie Machen Lamy,
DVM, DACVIM
(Cardiology)

IMAGING PERFORMED BY

Mac Daniel, DVM

HOSPITAL NAME

Thornton Animal
Hospital

REFERRING VET

Dr. Newbolt

INVOICE

22753

DATE

2/22/22

PRESENTING CLINICAL SIGNS

History: History of seizures treated with Keppra and Phenobarbital. History of chronic renal disease. Recent ataxia. Possible syncopal episodes. No heart murmur detected. Radiographs revealed possible enlarged right atrium.

ECHOCARDIOGRAM FINDINGS

2D, m-mode, color flow and doppler imaging is available. Mild diffuse thickening of mitral valve leaflets with no prolapse into the left atrial lumen. Trivial mitral regurgitation with no left atrial dilatation. Normal LV diameter with adequate myocardial function. Mildly increased LV wall dimensions with mild papillary muscle hypertrophy (0.9cm globally). 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 valve is normal in morphology and mobility. Mild thickening of the aortic valve. Normal pulmonic and mildly elevated aortic outflow velocities with laminar flow. No obvious pulmonic and mild aortic insufficiency. No pericardial or pleural effusion noted. No obvious cardiac masses.

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	1.2	1.2	47	90	0.25
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	166	1.8	0.9	5.4	1.6	1.5	0.8
*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 structure and function. The most significant abnormalities seen are mild LV hypertrophy and a small aortic leak. These 2 findings are most suggestive of systemic hypertension, and a screening BP (preferably using Doppler) is highly recommended. If the BP is noted to be persistently >160mmHg, vasodilation with Amlodipine +/- Benazepril is indicated. Additionally, if deemed hypertensive, a full screening for underlying causes is recommended (PLN, renal disease, Cushings, etc.) through lab work +/- AUS. If the patient is NOT hypertensive, consider an infiltrative process or potentially primary HCM as an explanation for mild changes.



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In the absence of systemic hypertension, no obvious cardiac cause of syncope is appreciated here. Other possibilities should be considered, and an ECG is a reasonable next step.

SPECIES

Canine

Once BP is recorded and addressed, anesthetic risk is considered mild however cardiac protective drug choices (opioid/benzodiazepine premedication, propofol or alfaxalone induction, iso/sevoflurane gas) are recommended. Monitor for arrhythmias, hypotension, and hypoxia both intra and post-operatively and intervene as necessary. Judicious IV fluid rates are recommended to avoid fluid overload. Avoid heart rate stimulating drugs such as atropine unless clinically indicated.

BREED

Maltese

Omega fatty acid supplementation and mild salt restriction may also be of some long-term benefit. Monitor for development of a cough, labored breathing, exercise intolerance or collapse episodes.

SEX

Female Spayed

PLAN

Baseline BP recommended, if BP >160mmHg, institute amlodipine +/- Benazepril to effect with a target stressed BP <130mmHg. Systemic screening for causes through lab work/AUS.

AGE

14 years

Monitor BP every 3-4 months due to AI. A recheck echocardiogram is recommended in 6 months to screen for progression, sooner if clinical signs arise.

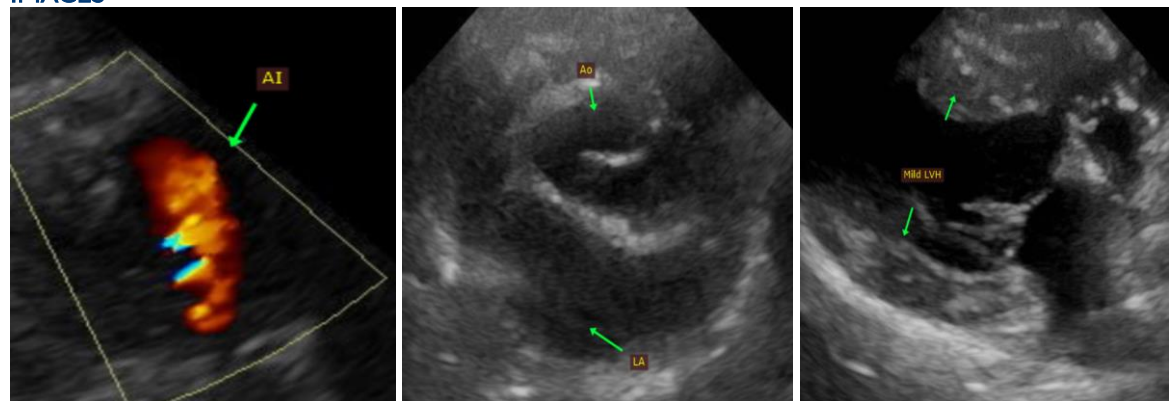
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IMAGES

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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.

HOSPITAL NAME

Thornton Animal Hospital

REFERRING VET

Dr. Newbolt

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.

INVOICE

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Maggie Machen Lamy, DVM
Diplomate of the American College of Veterinary Internal Medicine (Cardiology)
info@sonopath.com

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