



PATIENT

Sandi Toews

SPECIES

Canine

BREED

Chihuahua

SEX

Female Spayed

AGE

4.4 years

WEIGHT

7.1lbs

INTERPRETED BY

Maggie Machen Lamy,
DVM, DACVIM
(Cardiology)

IMAGING PERFORMED BY

Sammi Fuller, DVM

HOSPITAL NAME

Hart Family VC

REFERRING VET

Dr. Fuller

INVOICE

46110

DATE

12/9/25

PRESENTING CLINICAL SIGNS

History: New grade 3/6 heart murmur. Diagnosed with COMS - Caudal Occipital Malformation Syndrome and syringomyelia; on Dexamethasone (0.5mg/5mL SID), Gabapentin 100 mcg/mL, 0.2mL q24h and Omeprazole 20mg tab ¼ tab q24h for neurological symptoms. CXR: normal. Sedated with Torb and Propofol. Average BP was 175/118 (referring vet clinic did 5 BPs, all significantly elevated > 170 systolic).

*Pet was shaky and nervous during the readings.

Lab work largely normal w monocytosis, elevated TS

ECHOCARDIOGRAM FINDINGS

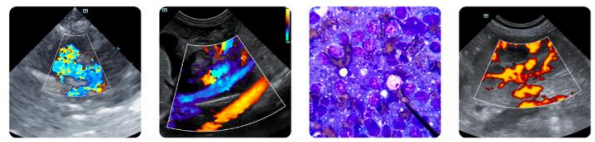
2D, m-mode, color flow and doppler imaging is available. Mild diffuse thickening of mitral valve leaflets with no prolapse into the left atrial lumen. No mitral regurgitation with no left atrial dilation. Normal to slightly decreased LV diameter with adequate myocardial function. Increased LV wall dimensions (0.7cm) with mild papillary muscle hypertrophy. 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. Normal aortic valve. Normal pulmonic and 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	NM	1.3	35	60	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	NM	0.8	0.7	3.2	1.3	1.2	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)
*Note: All measurements based upon multi-modal images and methods. An average value is reported.				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

The most significant abnormalities seen are LV hypertrophy and a small aortic leak. These 2 findings may be suggestive of systemic hypertension, and the BP is reportedly elevated. Follow up as below. Other possible causes of this appearance would be an infiltrative process or



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potentially primary HCM as an explanation for mild changes. No cause of a murmur is identified, with no significant valvular insufficiencies identified.

These findings are unusual in a dog, and even more unusual in a relatively young dog. If the reported blood pressures are thought to be accurate (ie pathologic versus physiologic), we must consider why this patient is hypertensive. primary hypertension is exceedingly rare in small animals however it would be a rule out diagnosis. This patient has no predisposing factors for true systemic hypertension such as renal disease or cushing's disease. Reassessing the BP is advised, ensuring stress is kept to a minimum and readings plateau within 5mmHg of variability. Given the unusual nature of this case, consider referral for follow-up evaluation to ensure no small abnormalities are missed.

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.

Prognosis is guarded long-term.

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.

PLAN

Reassess BP for accuracy in light of the above discussion. Ideally obtain serial measurements in a controlled, low stress environment and continue until 3 consecutive readings plateau within 5mmHg of variability. Utilize owner restraint, gabapentin, etc if needed. If persistently >150mmHg despite a relatively calm demeanor, recommend institution of amlodipine to effect and consider full work up for these findings (IM consultation).

A recheck echocardiogram is recommended in 6 months to screen for progression, sooner if clinical signs arise. Referral should be considered if desired to ensure nothing is missed in this unusual case.

IMAGES





PATIENT

Sandi Toews

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.

SPECIES

Canine

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.

BREED

Chihuahua

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

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