

PATIENT

Layla Weidenbach

SPECIES

Canine

BREED

Beagle

SEX

Female Spayed

AGE

11 years

WEIGHT

37lbs; 16.8kgs

INTERPRETED BY

Maggie Machen Lamy,
DVM, DACVIM
(Cardiology)

IMAGING PERFORMED BY

Melissa Weisman, DVM

HOSPITAL NAME

Minnesota Veterinary
Ultrasound

REFERRING VET

Dr. Weisman

INVOICE

21706

DATE

10/25/21

PRESENTING CLINICAL SIGNS

History: Presented to emergency referral center yesterday for acute onset leg splaying, collapse, and urination. Pet was seen by rDVM for a cough of 3 weeks duration. Abdominal US showed 2.0cm mass at cranial pole of left adrenal gland and enlargement of the cranial pole of the right adrenal gland. BP measurements were recommended. Trying to determine if lung changes and tachypnea are primary respiratory (infection, neoplasia, ATE) or due to CHF.

Abnormal PE/Chem/CBC/UA Results: PE showed mild dehydration, no cardiac murmur, no arrhythmia, fair synchronous pulses, loud harsh lung sounds all fields and tachypnea. P=140, T=100.6, R=panting, SPO2=98%. Radiographs showed patchy, unstructured interstitial alveolar pattern, mild cardiomegaly, and mild hepatomegaly. Chem prof showed GGT=24. CBC showed HCT=62.9%, TP=7.0g/dL, WBC=12.49 K/mcL.R/O's for lung changes include pulmonary edema, pneumonia, hemorrhage, and lymphoma. Patient was given furosemide, 37.5mg IV followed by 50mg tabs-3/4 tab PO BID.

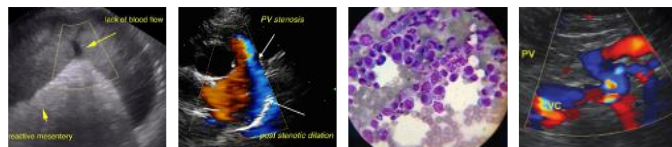
RADIOGRAPHIC FINDINGS *NOTE: Images submitted for supplemental cardiac information only.
Normal cardiac silhouette. No obvious evidence of CHF. Suspect pulmonary pathology.

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. The left atrial dimension is increased for this body size; however, LA:Ao is normal. Normal LV diameter with adequate myocardial function. 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. Mild to moderate AI. No pulmonic 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			NM	1.3	28	55	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		1.78	0.71	16.8	3.26	3.89	2.8
*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. Adapted from June Boon, Veterinary Echocardiography, 1998 Rishniw M and Hollis NE, J Vet Intern Med 2000; 14:429-435 Hansson et al, Vet Rad and Ultrasound 2002				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)



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Bonagura et al. Echocardiography: principles of interpretation, Vet Clin North Am 15:1177, 1995	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)

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INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

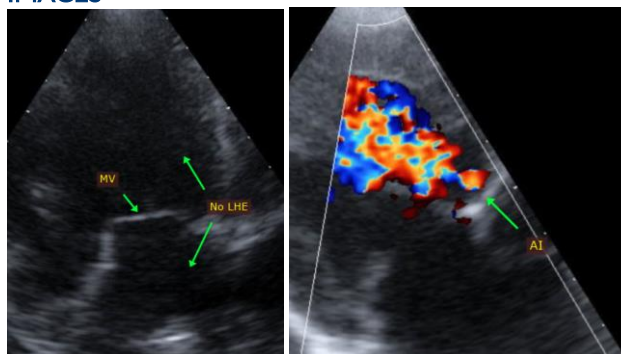
Overtly normal cardiac dimensions and function, with no obvious dysfunction or dilation of the left heart. No significant MR or TR are visualized, and no evidence of pulmonary hypertension. One finding that is difficult to explain is the raw LA dimension is increased for this body size; however, the LA:Ao is normal. Potentially a slight increase in dimension could be explained by aortic insufficiency (there is a mild to moderate AI present); however, a normal variant is suspected. Regardless, with this degree of increase in light of a normal LV dimension and no obvious structural disease identified this is likely of little clinical importance. A baseline BP is recommended.

No cardiac medications are indicated at this time as the respiratory signs appear non-cardiac in origin. Lasix can be safely discontinued. Continued work up for infectious/inflammatory respiratory causes is recommended. Options include Baytril or similar antibiotic, anti-inflammatory prednisone, aggressive hydrocodone, etc. If refractory, may consider TTW/BAL for further information. Consider a radiologist evaluation of serial chest radiographs if not already performed.

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

Chronic respiratory issues can lead to pulmonary hypertension if poorly controlled and a recheck echocardiogram is recommended should any exertional syncope/dyspnea occur, or a murmur be noted in the future.

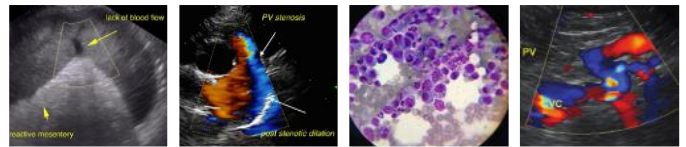
IMAGES



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.

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



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