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Clinical Sonography & Telecytology
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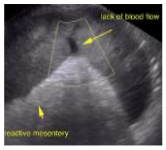
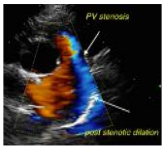
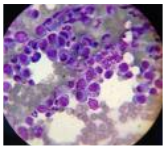
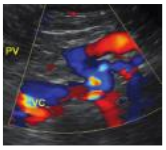





SonoPath.com
1-800-838-4268 info@sonopath.com

PATIENT
Lucy Lobo

SPECIES
Canine

BREED
NP

SEX
Female Spayed

AGE
11.5 years

WEIGHT
7.2lbs

INTERPRETED BY
Maggie Machen Lamy, DVM, DACVIM (Cardiology)

IMAGING PERFORMED BY
Sang K Han. DVM

HOSPITAL NAME
Oso Pet Care Center

REFERRING VET
Dr. Han

INVOICE
25183

DATE
7/6/22

PRESENTING CLINICAL SIGNS

History: Tachypnea. History of Cushings disease and elongated soft pallet. Potbellied appearance. Tachypnea noted during the ultrasound.

ECHOCARDIOGRAM FINDINGS

2D, m-mode, color flow and doppler imaging is available. Mild mitral valve thickening with no obvious prolapse into the left atrial lumen. No mitral regurgitation; normal left atrial dimension. Normal LV diameter with adequate myocardial function. The tricuspid valve appears mildly thickened with trace TR. Mild right heart prominence. Mild RV hypertrophy. No significant MPA or branch dilation. The pulmonic and aortic valves are normal in morphology and mobility. Normal LVOT/RVOT velocity. No aortic and mild pulmonic insufficiency. No pericardial or pleural effusion noted. No obvious cardiac tumors seen.

CARDIAC CHART

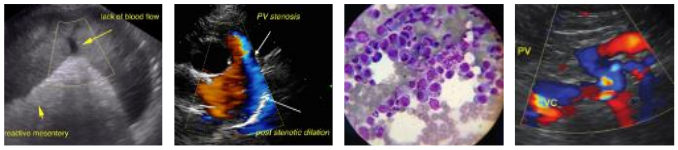
CANINE CARDIAC PARAMETERS	MR VMAX (m/s)	TR VMAX (m/s)	LA/AO (Boon method)	LA/AO (Heart Base; Swe)	FS (%)	EF (%)	EPSS (cm)
NORMAL PARAMETER	4.5-5.5	<2.7	1.3	<1.6	28-40	40-100	<0.6
PATIENT	NA	NA	1.3	1.1	58	90	0.3
CANINE CARDIAC PARAMETERS	**HR** (BPM)	**AV VMAX** (m/s)	**PV MAX** (m/s)	**BODY WEIGHT** (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	NM	1.0	3.3	1.3	1.7	0.7
*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)

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

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Early pulmonary hypertension is suspected with a small tricuspid leak and mild right heart prominence. This is likely developing secondary to described respiratory issues and monitoring is advised. It is important to note that PAH develops secondary to primary respiratory signs if poorly controlled, rather than being a primary cause. Regardless, a lack of significant right heart changes indicate little concern at this time and primary respiratory disease should continue to be addressed. The left heart is essentially normal without significant pathology.

These findings would certainly suggest that the respiratory issues are noncardiac in origin. Further evaluation/treatment of respiratory disease is recommended, depending on response to current regimen. Options include, Theophylline, Hydrocodone, a course of Baytril or similar, anti-



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inflammatory prednisone, etc. If refractory, TTW/BAL may be necessary. If indicated by clinical signs (ie if exertional dyspnea or collapse are noted), a Sildenafil trial can be administered to assess for any clinical improvement. Otherwise, this is not clearly warranted.

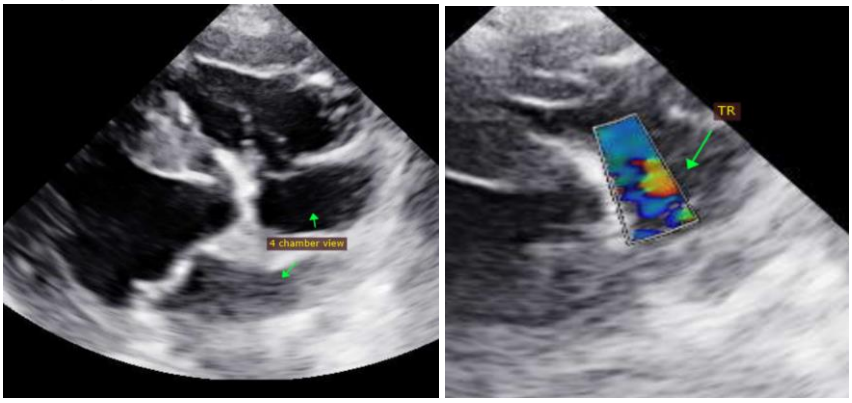
The best approach to early PAH is adequate cough control, as continuing inflammation within the airways leads to its development.

Monitor for signs of PAH at home, including exertional syncope and/or dyspnea.

Plan: Consider further respiratory therapy/work up as discussed. If indicated, a sildenafil trial (1-2mg/kg PO q8h, weaning to q12h if improved) can be attempted.

A recheck echocardiogram is recommended in 1 year, or if clinical signs of PAH develop (exertional syncope, etc.).

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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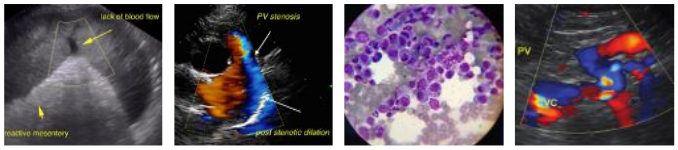

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