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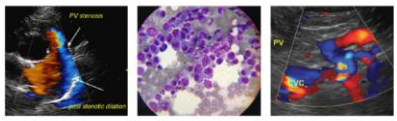
svsmobileimaging.com 309 - 737 - 3070



SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™
1-800-838-4268 info@sonopath.com SonoPath.com

PATIENT

Pepper Magnusson

SPECIES

Canine

BREED

Yorkshire Terrier

SEX

Female Spayed

AGE

10.8 years

WEIGHT

9lbs

INTERPRETED BY

Maggie Machen Lamy, DVM, DACVIM (Cardiology)

IMAGING PERFORMED BY

Tom McNeill

HOSPITAL NAME

SVS Imaging CT

REFERRING VET

Dr. Bloss

INVOICE

27773

DATE

12/1/22

PRESENTING CLINICAL SIGNS

History: History of tracheal collapse controlled with Tramadol up until a few weeks ago when she started with a honking cough 4-5 times a day, some at night, and some after barking. No exercise intolerance reported. Radiographs performed on 11/29/22 and compared to previous radiographs in June and July revealed a lobar sign, mass effect, or consolidation cranial to the heart, severe cardiomegaly, and peribronchial infiltrates. No murmur ausculted. Inspiratory crackles present in both sides of the thorax. Bloodwork WNL
-Current medications: Started on doxycycline and furosemide (12.5mg am and 6.25mg pm).

ECHOCARDIOGRAM FINDINGS

2D, m-mode, color flow and doppler imaging is available. Normal mitral valve leaflets with no prolapse into the left atrial lumen. No obvious mitral regurgitation with mild left atrial enlargement. 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. No obvious aortic or pulmonic insufficiency. Scant pericardial effusion. No pleural effusion noted. Suspicious hypoechoic lesion is identified cranial to the great vessels/heart base. The origin cannot be determined.

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	1.4	46	80	0.1
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	0.78	4.1	1.7	1.7	0.9
*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)
Adapted from June Boon, Veterinary Echocardiography, 1998				25	2.18 (2.4)	4.48 (2.9)	3.10 (2.5)
Rishniw M and Hollis NE, J Vet Intern Med 2000; 14:429-435				30	2.33 (3.3)	4.83 (3.9)	3.39 (3.4)
Hansson et al, Vet Rad and Ultrasound 2002				35	2.48 (4.3)	5.17 (5.0)	3.69 (4.5)
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)

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Overtly normal cardiac dimensions and function, with no obvious dysfunction or dilation of the left heart. No significant valvular leaks are visualized, and no evidence of pulmonary hypertension.

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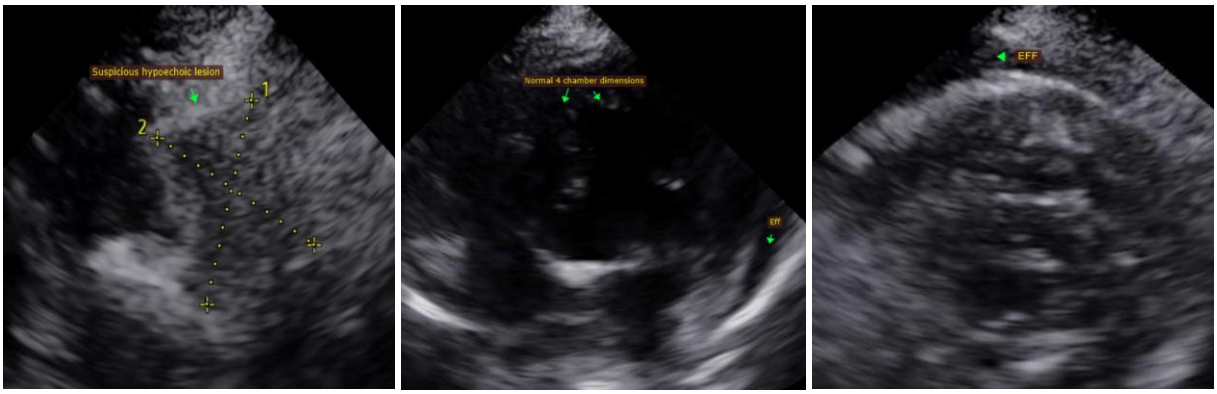
Of great concern, a suspicious hypoechoic lesion is noted cranial to the great vessels/heart base. An origin cannot be determined as visualization is poor in this patient. Possibilities include the heart base itself or cranial (ie mediastinal is not ruled out). Scant pericardial effusion is likely related, although without a definitive tumor origin pathology is purely speculative. Highly recommend advanced thoracic imaging in this case, including a Radiologist review of the chest radiographs, focused thoracic ultrasound, etc. ideally at a multi-specialty center as the gold standard. Unless the patient has responded significantly to the medication, there is no obvious indication for Lasix therapy and this can be discontinued.

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

Follow up is dictated by results of further imaging.

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. 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