



PATIENT PRESENTING CLINICAL SIGNS

Maggie Berst History: Coughing; previous x-rays revealed pneumonia like pattern. Treated with Ab; started furosemide.

SPECIES Abnormal PE/Chem/CBC/UA Results: Cardiomegaly (VHS 12.5); BP: 136, 138, 140; BW WNL; Accuplex negative

Canine

ULTRASONOGRAPHIC EXAMINATION OF THE HEART

BREED

Westie

SEX

FS

AGE

13 yr

WEIGHT

21 lb

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	<1.3	28-40	40-100	<0.6
PATIENT			NM	1.47	33.2	65.4	0.22
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				
PATIENT	NM	NM	NM		3.2	2.5	

INTERPRETED BY

R. McKenzie Daniel, DVM, DABVP (Canine and Feline)

IMAGING PERFORMED BY
Tasha

HOSPITAL NAME

Dillsburg VC

REFERRING VET

Dr. Crow

INVOICE

10629ag

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05/16/2022

Cardiac Presentation

The echocardiogram in this patient demonstrated minor subjective increased left atrial size based on 2 separate methods of LA evaluation. The cranial and caudal mitral valve leaflets presented normal linear structure, extension in systole, and union in diastole with normal kinesis. No overt or significant MR was present. The left ventricle presented thicknesses with linear contour and was not dilated nor restricted. The myocardium presented normal echogenicity without subjective evidence of significant fibrotic or ischemic disease. Contractility of the ventricular walls was adequate and in normal range for this patient evidenced by the fractional shortening measurement and subjective evaluation of the different regions of the myocardium. The left ventricular outflow tract demonstrated subjective normal laminar flow and subjective structural integrity. The right atrium and auricle revealed minor increased size with overall normal structure and content. No evidence of masses was noted. Tricuspid valvular assessment revealed potential for minor thickening and subjective mild TR on Doppler. The right ventricle was of normal size (1/3 diameter of LV), chordae structure, myocardial echogenicity and thickness. Pulmonary outflow tract assessment revealed normal valve structure, laminar flow, and overall normal diameter (approx. 1:1 pa/ao ratio). No visible pericardial or free pleura fluid was noted. The cranial mediastinum and pericardial and extra-cardiac regions were free of overt masses in the visible window. Brief sonographic assessment of the cranial abdomen revealed no evidence of ascites or obvious hepatic congestion.



PATIENT **ULTRASONOGRAPHIC FINDINGS**

Maggie Berst

- Overall overtly normal cardiac structure and function
- Minor subjective LA/RA enlargement
- Subjective mild TR

SPECIES

Canine

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

BREED

Westie

Overall the cardiac presentation is most consistent with compensated cardiac structure and function without evidence of left or right heart chamber enlargement, LV systolic dysfunction or other obvious cardiomyopathy. The possibility of pulmonary hypertension in this patient cannot technically be excluded but thought less likely given the lack of significant RA/RV enlargement or cor pulmonale. The lack of significant LA/LV enlargement was not consistent with cardiogenic pulmonary edema. Given the presentation, non-cardiogenic coughing potentially secondary to chronic lower airway disease or potential pneumonia is likely. No overt indication for cardiac medications based on this study however an appropriate furosemide trial with weaning dose and assessment of clinical response would not be inappropriate. Recheck echocardiogram recommended if clinically indicated or if progressive signs suggestive of cardiac disease are noted.

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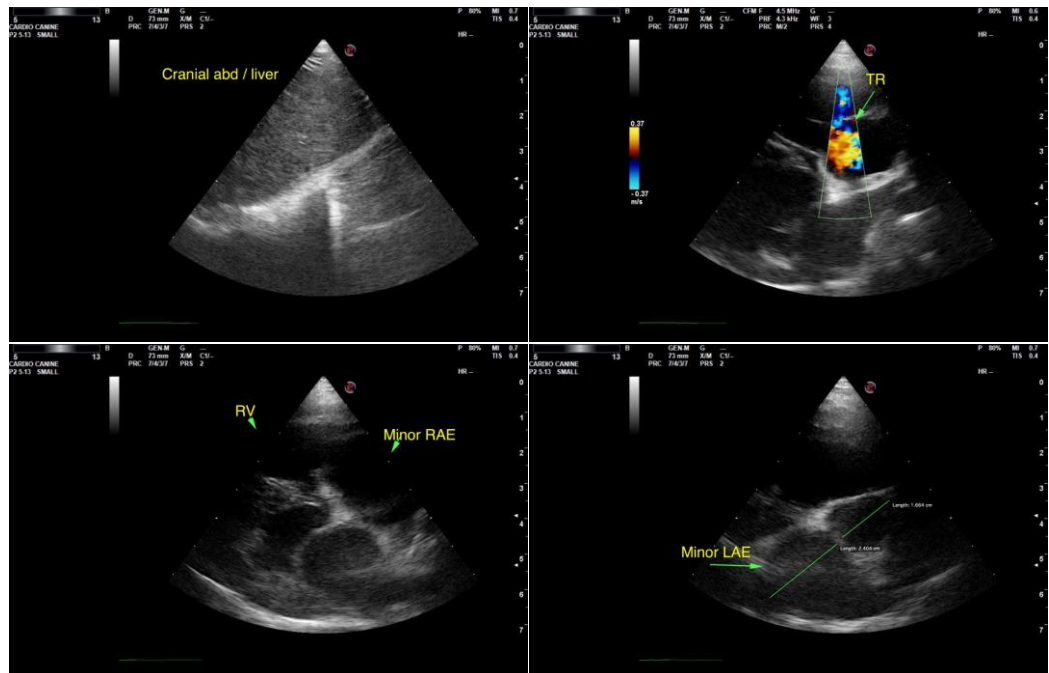
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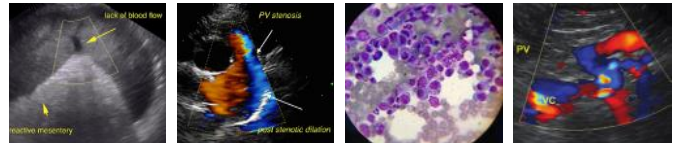
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

Thank you for this referral. If the clinical or image interpretation does not parallel your findings or if I



PATIENT

can be of any further assistance please contact me.

Maggie Berst

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