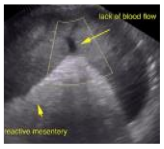
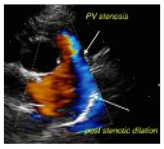
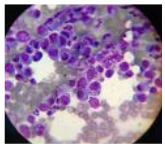
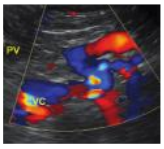
SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™

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

PATIENT

Koda Erickson

SPECIES

Canine

BREED

Pitbull

SEX

MN

AGE

4

WEIGHT

80 lbs.

INTERPRETED BY

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

IMAGING PERFORMED BY

Dr. Schneck

HOSPITAL NAME

Willamette VH

REFERRING VET

Dr. Schneck

INVOICE

14483

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PRESENTING CLINICAL SIGNS

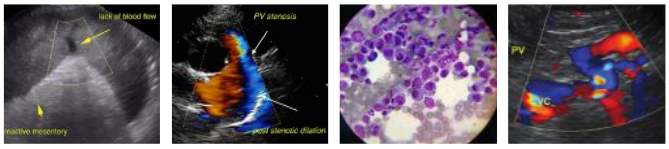
7/26: Acute coughing and bronchopneumonia. Hospitalized. Fever. No murmur. Radiographs: patchy alveolar disease and consolidation or right middle and right cranial lung lobe. CBC/Chem/EPOC - NSF 8/2/22: Returning due to not eating well, regurgitation (of food) at home. Having trouble keeping food, water and medications down. New presentation 8/2/22: T 102.1. New murmur left parasternal ejection.
Abnormal PE/Chem/CBC/UA Results: 8/2/22 4DX: Positive Erhlichia spp. CBC NSF. Recheck radiographs chest & abdomen. Abdomen unremarkable. Review: CONCLUSIONS: The previously seen alveolar disease has primarily resolved during the recheck interim. There remains a very small amount of increased opacification of the right cranial lung lobe. Some of this may be due to scarring from the previously seen consolidating pneumonia however a small amount of residual pneumonia could be present. There is no evidence of persistent esophageal distention during the recheck interim. Splenomegaly could be due to sedation of the patient. The cardiac silhouette is not enlarged despite the reported history of a heart murmur, however this does not exclude the possibility of cardiac disease being present.

ULTRASONOGRAPHIC EXAMINATION OF THE HEART

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				1.28	34.2	66.7	0.25
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	2.0	0.75		4.0	3.8	

Cardiac Presentation

The echocardiogram in this patient demonstrated normal **left atrial** size based on 3 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. 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



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myocardium. The **left ventricular outflow** tract demonstrated normal laminar flow and subjective structural integrity. Overtly normal aortic valve with borderline elevated LVOT velocity was noted. The **right atrium** and auricle revealed normal size, structure and content. No evidence of masses was noted. **Tricuspid** valvular assessment demonstrated adequate linear morphology and kinesis. 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 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 masses in the visible window.

ULTRASONOGRAPHIC FINDINGS

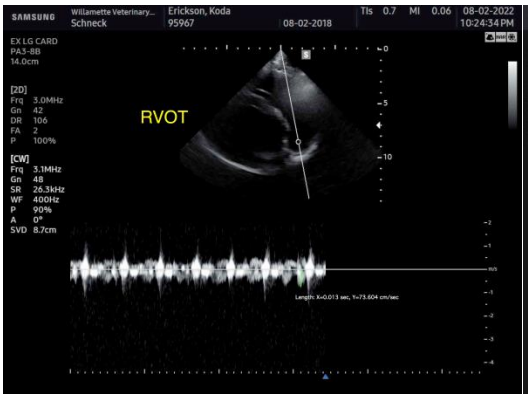
- Overtly normal cardiac structure and function
- Borderline elevated LVOT velocity

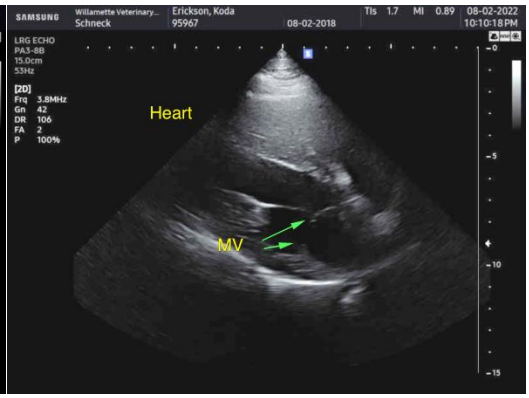
INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

No evidence of overt or significant structural or functional cardiomyopathy including no evidence of left or right heart chamber enlargement, LV systolic dysfunction, significant valvular Insufficiencies, or clinical pulmonary hypertension.

Without overt evidence of aortic valve pathology, the borderline elevated LVOT velocity is nonspecific yet not overtly consistent with stenotic disease. Assuming no evidence of volume changes such as dehydration or anemia, a physiologic flow murmur or potential small flow abnormality not visualized could be considered. Regardless, at this stage, the hemodynamic effects of the murmur appear to be minimal. No overt evidence of DCM criteria or myocarditis was noted.

Given the overtly normal cardiac structure and function, the respiratory abnormalities in this patient appear to be noncardiogenic in origin. No indication for cardiac medications at this stage. However, continued monitoring of the heart murmur is recommended with recheck echocardiogram suggested if murmur intensity increases or if evidence of progressive cardiomegaly on subsequent radiographs.





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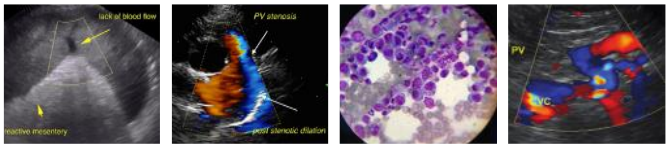

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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

Thank you for this referral. If the clinical or image interpretation does not parallel your findings or if I can be of any further assistance please contact me.

R. McKenzie Daniel, DVM, DABVP (Canine / Feline Practice)
info@SonoPath.com