


**PATIENT**

Balto Ariceaga

**PRESENTING CLINICAL SIGNS**

Acute 1-2 day history of increased RR and effort with lethargy and inappetence, BAR

**SPECIES**

Canine

Abnormal PE/Chem/CBC/UA Results: Labwork see attached - all WNL including 4DX Radiographs see attached - pneumothorax?

Submitted radiographs revealed evidence of suspected pneumothorax.

**ULTRASONOGRAPHIC EXAMINATION OF THE HEART**
**BREED**

Husky

**SEX**

MN

**AGE**

2014

**WEIGHT**

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				1.1	46	80	0.2
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					3.3	3.3	

**INTERPRETED BY**

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

**IMAGING PERFORMED BY**

Amanda Crook

**HOSPITAL NAME**

 Rivers Edge Pet  
 Medical Center

**REFERRING VET**

Dr. Gray

**INVOICE**

13534ag

**DATE**

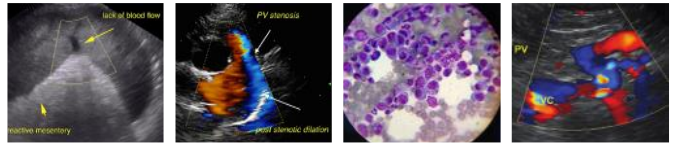
04/22/2023

**Cardiac Presentation**

The echocardiogram in this patient demonstrated normal 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 MR on Doppler. 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 normal laminar flow and subjective structural integrity. Normal measured LVOT velocity. 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. No overt 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 diameter (approx. 1:1 pa/ao ratio). Normal measured RVOT velocity. No visible pericardial or free pleural fluid was noted. The cranial mediastinum and pericardial and extra-cardiac regions were free of masses in the visible window. Generalized aerated lung was present in the left and right thorax. No evidence of peripheral pulmonary mass lesion, consolidated lung or other peripheral pulmonary pathology. Rapid view of the liver revealed no evidence of hepatic congestive criteria without evidence of caudal plural effusion or transdiaphragmatic comet tail artifact.

**ULTRASONOGRAPHIC FINDINGS**

- Normal echocardiogram.



**PATIENT**

- Generalized aerated lung.

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**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

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No evidence of structural or functional cardiomyopathy was present in this study including no evidence of clinical issues such as LV systolic dysfunction, clinical pulmonary hypertension, significant valvular insufficiencies or stenotic disease. The normal cardiac presentation rules out potential for CHF or clinical pulmonary hypertension as a primary cardiogenic cause of the patient's respiratory abnormalities. Primary lower airway disease is likely. No overt evidence of peripheral pulmonary pathology i.e., mass, consolidated lung etc. A definitive cause of the suspected pneumothorax was not obvious.

**BREED**

Husky

No indication for cardiac medication. Thoracic radiology consult with as needed respiratory support is recommended. Lower airway sampling would be required for definitive diagnosis.

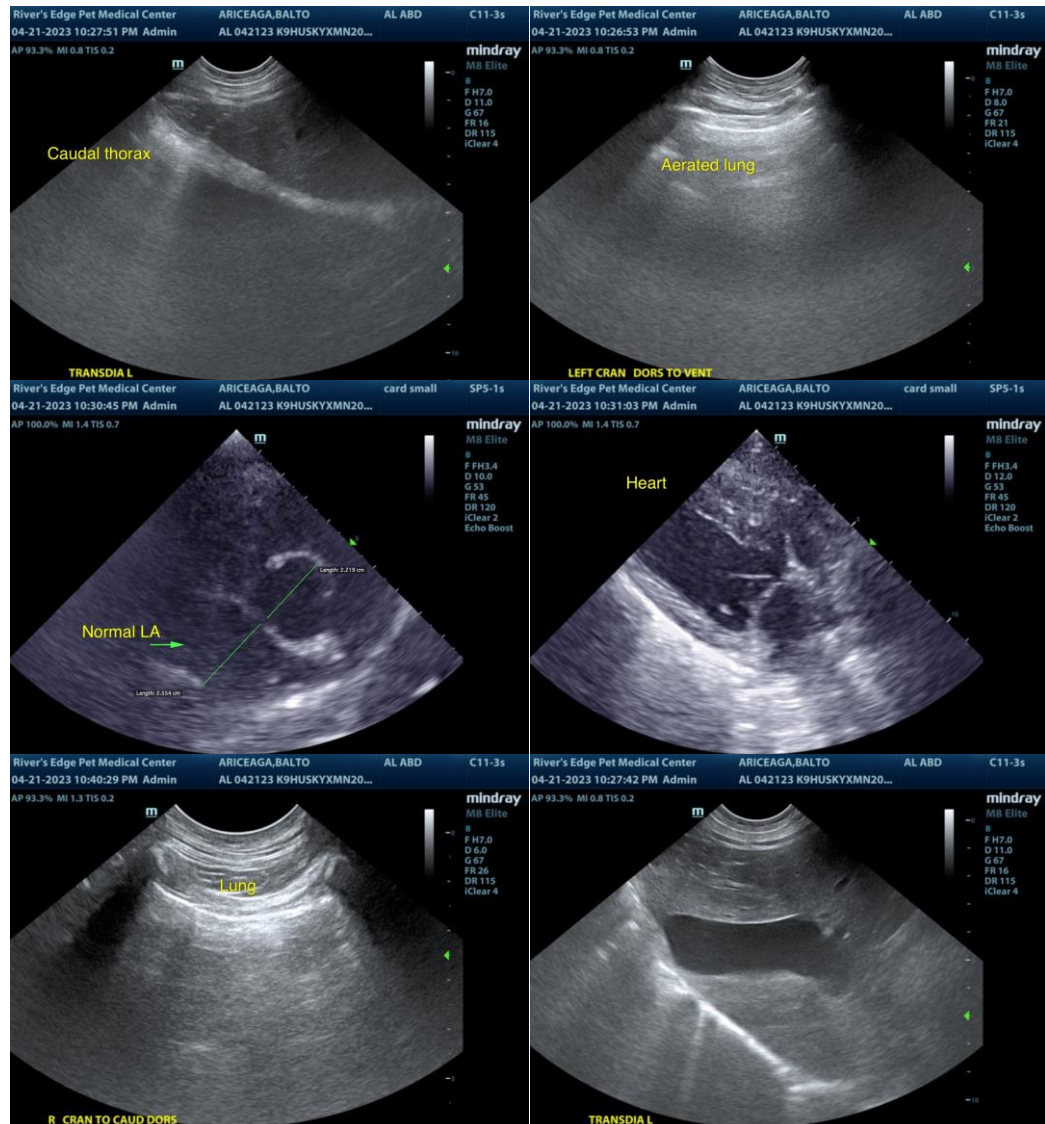
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not



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visible in the image/video clips provided.

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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.

**SPECIES**

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R. McKenzie Daniel, DVM, DABVP (Canine/Feline Practice)  
[mac.daniel@sonopath.com](mailto:mac.daniel@sonopath.com)

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