


PATIENT

Zwiebel Augenstein

PRESENTING CLINICAL SIGNS

Heartworm positive. Check status of heart. has clinical signs of coughing.

SPECIES

Canine

Abnormal PE/Chem/CBC/UA Results: Heartworm positive, Alk Phos 1539, BUN/Creat 32, Chole 346, Trigyc 1353, PrecPSL 168, Platelet Ct 527, Urine Protein Creatinine Ratio 2.8, UA: 3+ protein

ULTRASONOGRAPHIC EXAMINATION OF THE HEART

BREED	CANINE CARDIAC PARAMETERS	MR VMAX (m/s)	TR VMAX (m/s)	LA/AO (Boon method)	LA/AO (Heart Base; Swe)	FS (%)	EF (%)	EPSS (cm)
Cairn Terrier								
SEX	NORMAL PARAMETER	4.5-5.5	<2.7	1.3	<1.6	28-40	40-100	<0.6
FS	PATIENT				1.4	37.8	71	0.1
AGE	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)
12yr								
WEIGHT	NORMAL PARAMETER	50-100	0.7-1.7	0.7-1.6				
18lb	PATIENT	129	1.7	0.9		2.5	2.0	

INTERPRETED BY

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

IMAGING PERFORMED BY

Jessica Miller, RDMS

HOSPITAL NAME

AH of Roxbury

REFERRING VET

Dr Hickenbottom

INVOICE

14652ag

DATE

08/18/2023

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 heartworms noted in the main or deep pulmonary artery. 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.

Transdiaphragmatic view revealed comet tail lung pattern, which is echogenic sound wave interface with microconsolidations within the caudal lung field. The lung field should not be visualized by sonogram unless pathology is present. Chest radiographs if not done are recommended to rule out



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alveolar/lung disease associated with heartworm disease, thromboembolic disease, chronic inflammatory disease with microconsolidation or other pathology.

SPECIES

Canine

- Normal cardiac structure/function.

ULTRASONOGRAPHIC FINDINGS

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

BREED

Cairn Terrier

No evidence of structural or functional cardiomyopathy was present in this study including no evidence of cor pulmonale or clinical pulmonary hypertension associated with heartworm disease. Visible heartworms were not present in the right heart or pulmonary artery yet may be within the non-visualized pulmonary vasculature. No contraindication for heartworm therapy. No indication for cardiac medication. As needed respiratory support is recommended.

SEX

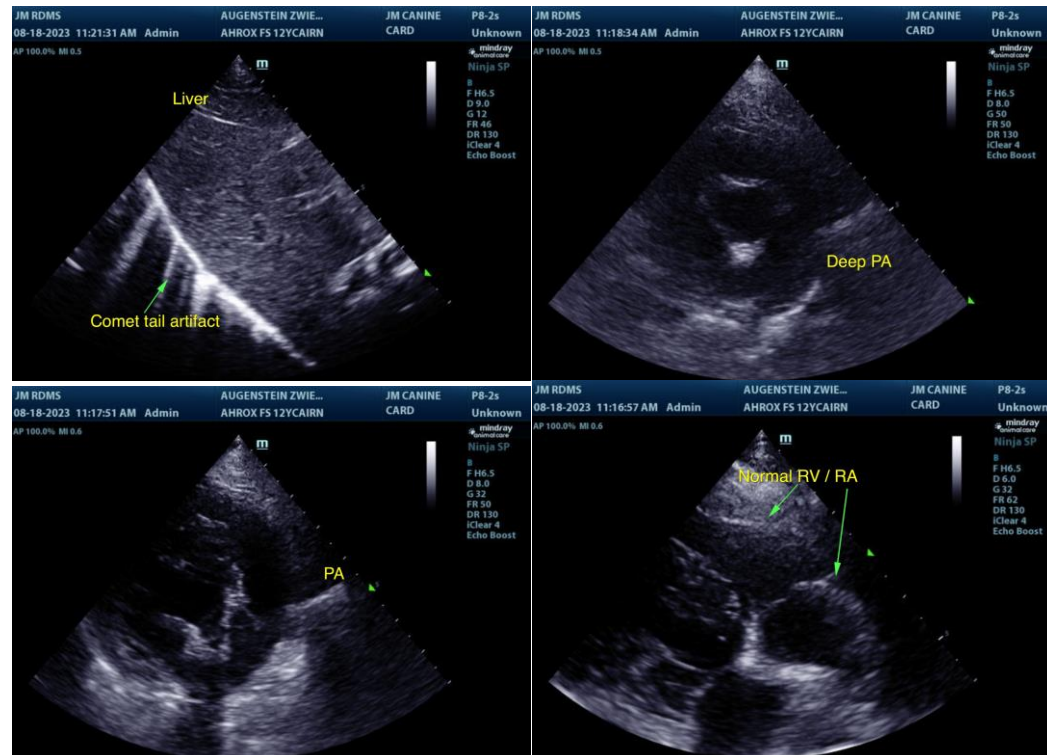
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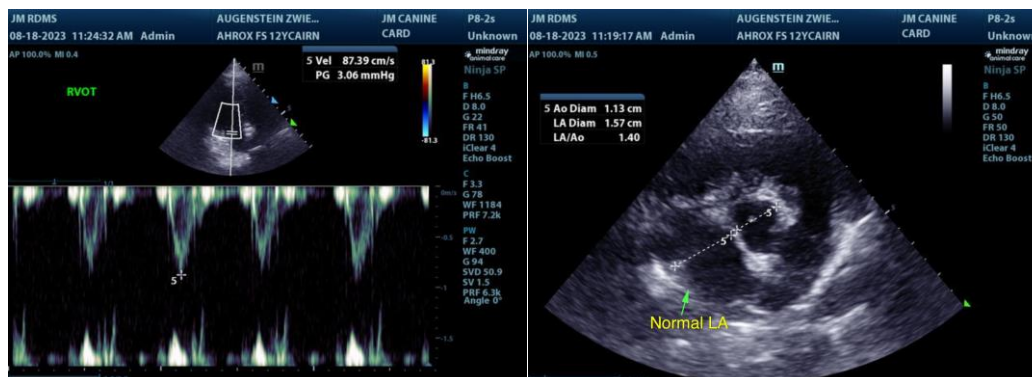
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

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