



## PATIENT

Charlie Caban

## PRESENTING CLINICAL SIGNS

sig lung pathology, dilated pulmonary vessels, intermittent cough

## SPECIES

Canine

## BREED

Beagle

## SEX

MN

## AGE

6

## WEIGHT

43

## INTERPRETED BY

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

## IMAGING PERFORMED BY

Jenn

## HOSPITAL NAME

Rockaway Animal  
Hospital

## REFERRING VET

Dr Maniar

## INVOICE

14621ag

## DATE

08/15/2023

## 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	<1.6	28-40	40-100	<0.6
PATIENT				1.35	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				
PATIENT	NM	1.6	1.2		3.3	3.0	

## Cardiac Presentation

The echocardiogram presented normal to emerging prominent right heart with subtle right ventricular hypertrophy, without significant tricuspid regurgitation, and normal to subtle increased right atrial size. No evidence of neoplasia was noted in the right auricle, or elsewhere in the heart. The pulmonary artery was uniformly prominent with normal measured RVOT velocity and trace pulmonic insufficiency on color Doppler. No overt heartworms were noted in the main or visible deep pulmonary arteries. Theoretically heartworms could be present in the deep pulmonary vasculature out of visible sonographic range. More likely, however, this prominent right heart is due to excessive intra-thoracic pressures caused by chronic respiratory disease or potentially excessive intra-thoracic fat (Pickwickian syndrome). The left heart demonstrated a linear ventricular septum. Contractility was functionally adequate demonstrated by the FS measurement. The mitral valve was not significantly insufficient, and no significant left atrial dilation was noted. The left ventricular outflow demonstrated normal flow patterns and velocities through the aortic valve. No evidence of tumor, pericardial or pleural effusion was noted. The visible extra-cardiac tissues were uniformly linear without evidence of masses, infiltrative or inflammatory mediastinal tissue. No evident arrhythmic activity was noted during the exam.

Transdiaphragmatic view revealed no evidence of hepatic congestive criteria with mild 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.

## ULTRASONOGRAPHIC FINDINGS

- Normal LA/LV.



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- Normal to possible emerging borderline mild prominent RA/RV- possible emerging cor pulmonale.
- Mildly enlarged pulmonary artery with trace pulmonic insufficiency.

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**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

No obvious clinical pulmonary hypertension based on lack of significant TR or pulmonic insufficiency. However, increased intrathoracic pressure secondary to chronic respiratory disease or other intrapulmonary pathology is probable. No indication for cardiac medications. Sonographic monitoring is recommended especially if clinical signs consistent with clinical pulmonary hypertension are noted.

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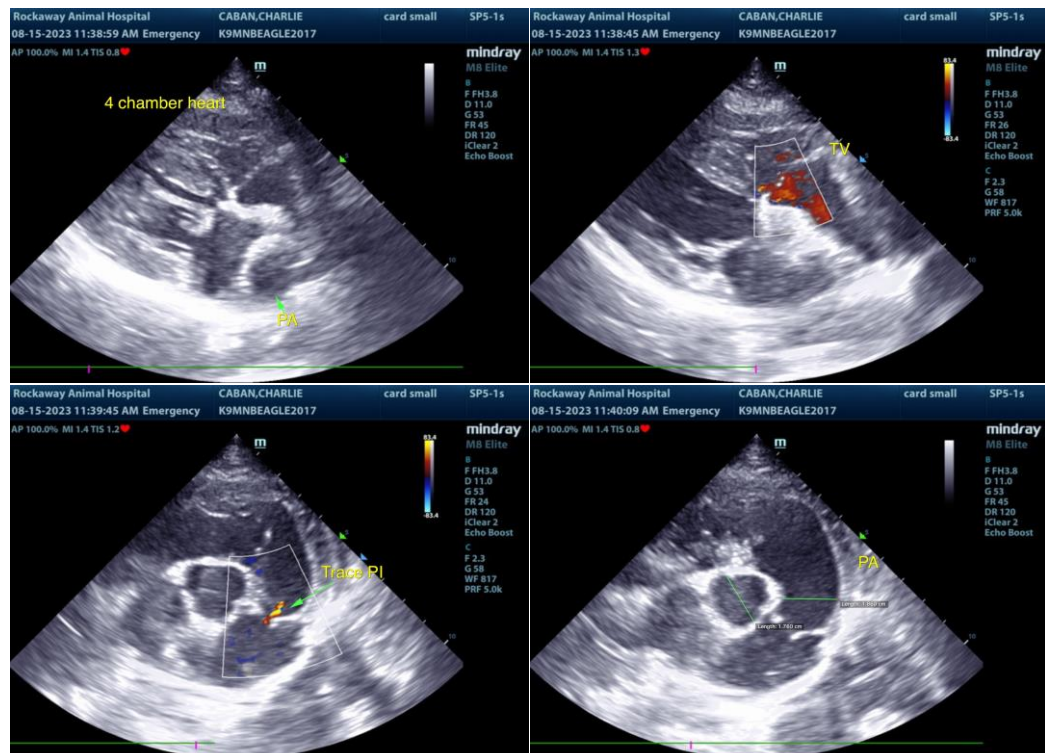
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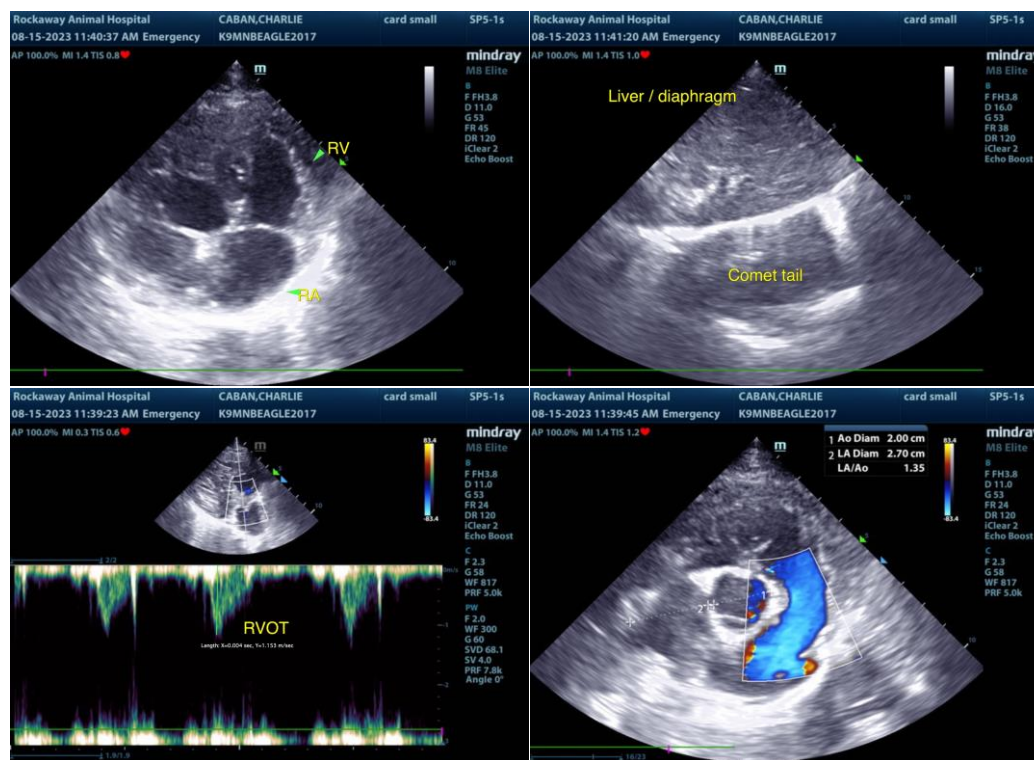
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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

R. McKenzie Daniel, DVM, DABVP (Canine/Feline Practice)  
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