



## PATIENT PRESENTING CLINICAL SIGNS

Ralph Macri History: Patient presents for respiratory issues. Radiographs were WNL.

## SPECIES ULTRASONOGRAPHIC EXAMINATION OF THE HEART

Canine

BREED

English Bulldog

SEX

Neutered Male

AGE

11 Years

WEIGHT

65 Lbs.

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	--	--	NM	1.44	35.5	68.4	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	BELOW	BELOW	BELOW	BELOW
PATIENT	101	1.0	0.9	--	3.0	3.1	--

### 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. 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 laminar systolic flow with mild to moderate AV insufficiency on color doppler assessment, measuring approximately 2.0 m/s. The **right atrium** and auricle revealed mild prominent size, normal structure and anechoic content. No evidence of masses was noted. **Tricuspid** valvular assessment demonstrated potential for subtle thickening with minor insufficiency present on color doppler assessment. The **right ventricle** exhibited subjective mild prominent size (compared to the LV) with normal chordae structure, myocardial echogenicity and thickness. **Pulmonary outflow** tract assessment demonstrated overtly normal valve structure, laminar systolic flow, and diameter with mild pulmonic valve insufficiency present on color doppler assessment. 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. Consistent tachyarrhythmia was present.

### ULTRASONOGRAPHIC FINDINGS

- Subjective mild prominent RA/RV size- possible mild cor pulmonale
- Mild TR- estimated pulmonary pressure gradient based on measured TD insufficiency velocity not overtly consistent with clinical pulmonary hypertension.
- AV insufficiency with trace PV insufficiency

### INTERPRETED BY

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

### IMAGING PERFORMED BY

Kelly Vazquez

### HOSPITAL NAME

New Bridge VH

### REFERRING VET

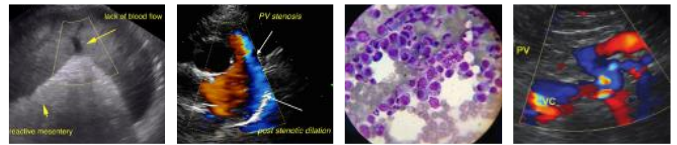
Dr. Glennon

### INVOICE

13489

### DATE

1/18/22



**PATIENT**

- Consistent tachyarrhythmia

Ralph Macri

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

**SPECIES**

Canine

The mild subjective prominent RA and RV in this patient may suggest mild cor pulmonale secondary to elevated pulmonary pressure, if this patient has exhibited chronic respiratory issues, however, overt evidence of clinical pulmonary hypertension was not definitively present. ECG assessment or Holter monitor recommended with cardiology consult given the persistent to consistent tachyarrhythmia. Assessment of systemic blood pressure recommended given the AV insufficiency. Overall, the cardiac presentation was not overtly consistent with cardiogenic respiratory issues. However, further evaluation, including recommended ECG or Holter monitor advised for further assessment.

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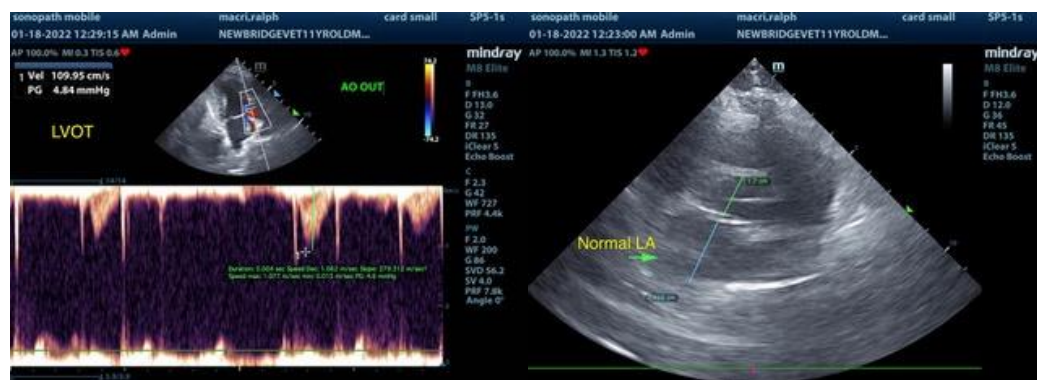
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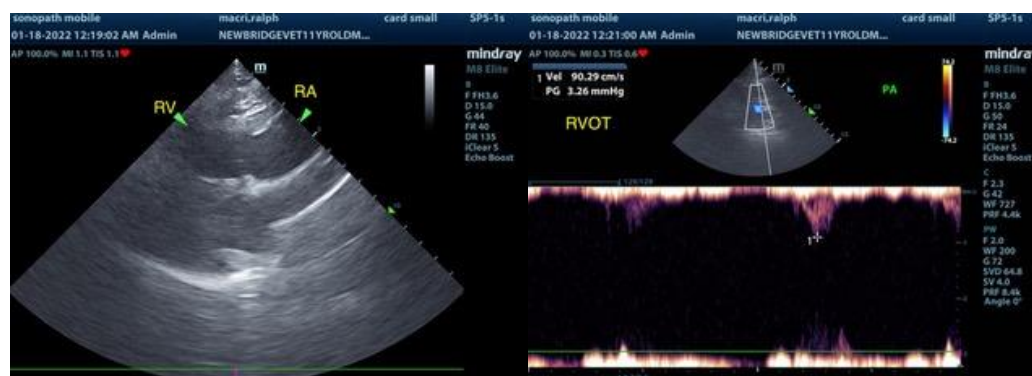
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The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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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