
**PATIENT**

Prudence Vanderpost

**SPECIES**

Feline

**BREED**

DSH

**SEX**

FS

**AGE**

8 years

**WEIGHT**

5.78 kg

**INTERPRETED BY**

 R. McKenzie Daniel,  
 DVM, DABVP

**IMAGING PERFORMED BY**

Crystal Hilll

**HOSPITAL NAME**

Simcoe AH

**REFERRING VET**

Dr. Lancashire

**INVOICE**

12967

**DATE**

1/5/22

**PRESENTING CLINICAL SIGNS**

Presented at SAH for 2 months duration of "shallow breathing". On presentation, patient was abdominal breathing and radiographs revealed bilateral pleural effusion with an increased radiopacity in the left cranial lung field. Furosemide treatment was initiated at 10mg PO TID and recheck radiographs showed mild improvement and o thought clinically there was increased energy and decreased respiratory effort however still does abdominal breathing at home just not as much. O consented to U/S chest/heart and is aware that we are not doing thoracocentesis at the time at time of U/S. Furosemide 20mg - 1/2 tab PO BID, given at about 10 am on the day of the scan(which was around 12pm)

**ULTRASONOGRAPHIC EXAMINATION OF THE HEART**

FELINE CARDIAC PARAMETERS	BODY WEIGHT (kg)	HR (BPM)	IVSd (cm)	LVIDd (cm)	LVWd (cm)	FS (%)	EF (%)
NORMAL PARAMETER	-----	150-240	0.3-0.6	1.0-2.1	0.25-0.6	35-67	80-100
PATIENT		215	0.46	1.1	0.48	47.3	82.2
FELINE CARDIAC PARAMETERS	LA/AO (Boon)	LA/AO HEART BASE (Sisson)	LA 2D 4-chamber long axis AS to FW (Sisson) (cm)	LVOT VEL. (m/s)	RVOT VEL. (m/s)	IVRT (m)	
NORMAL PARAMETER	<1.5	0.88-1.79	0.7-1.7	<1.6	<1.3	40-60	
PATIENT		1.4	1.25	1.0	1.0	NM	
Adapted from June Boon, Veterinary Echocardiography, 1998 Sisson D et al. JVIM 1991; 5: 232, Jacobs et al. Am J Vet Res 1985; 46:1705							

**Cardiac Presentation**

The echocardiogram in this patient demonstrated normal **left atrial** size based on 3 separate LA measurements. The cranial and caudal **mitral** valve leaflets presented normal linear structure and kinetics. No evidence of mitral valve insufficiency or SAM was noted. The **left ventricle** presented normal thicknesses with primarily maintained linear contour and was not dilated in appearance. Potential for mild reduced LD volume is possible. 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 and angles of the myocardium. The **left ventricular outflow** tract demonstrated normal laminar flow and subjective structural integrity. The **right atrium** and auricle revealed normal size, structure and content. No evidence of masses was



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noted or chamber overload. **Tricuspid** valvular assessment demonstrated adequate linear morphology and kinetics. The **right ventricle** was of normal size (1/3 diameter of LV), chordae structure, myocardial echogenicity and thickness. **Pulmonic** tract assessment revealed normal valve structure, laminar flow, and diameter (approx. 1:1 pa/ao ratio). Moderate volume free pleural fluid was present. No evidence of concurrent pericardial free fluid was noted. The free pleural fluid was primarily anechoic in appearance without overt evidence of significant cellular component. Overt cardiac pericardial, cranial mediastinal or thoracic masses were not present in the visible window.

**ULTRASONOGRAPHIC FINDINGS**

**Primary Findings**

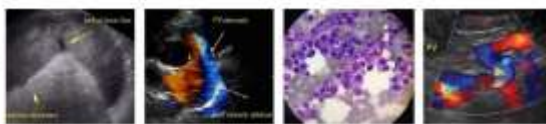
- Overtly normal cardiac structure and function, potential reduced cardiac volume
- Noncardiogenic pleural effusion

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

The lack of left or right heart chamber enlargement, systolic dysfunction, or other clinical issues such as pulmonary hypertension are not consistent with cardiogenic pleural free fluid. No indication for cardiac medications.

Unfortunately, a definitive cause of the noncardiogenic pleural effusion was not definitively evident. Thoracocentesis for effusion analysis, cytology +/- culture and sensitivity if evidence of inflammatory cells would be ideal. If possible, advanced imaging such as thoracic CT is recommended for further assessment pending thoracic effusion analysis.





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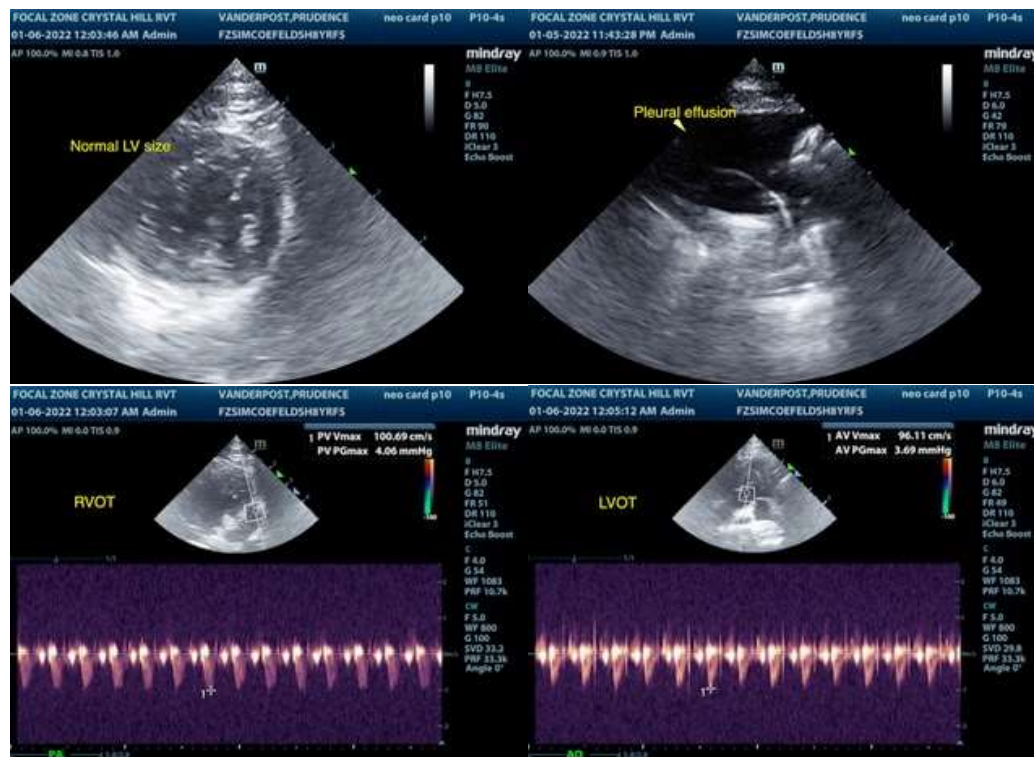
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The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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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