


**PATIENT**

Minet Heller

**PRESENTING CLINICAL SIGNS**

History: pleural effusion. Not eating, labored breathing, tires quickly, no energy. Has already had fluid drained and has been on lasix for a week. Rads show fluid in the chest.

**SPECIES**

Feline

Abnormal PE/Chem/CBC/UA Results: BNP 104

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

DSH

**SEX**

FS

**AGE**

11 yr

**WEIGHT**

7.4 lb

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		188	0.51	1.22	0.46	59	93.2
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	1.2	1.12	1.2				
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							

**INTERPRETED BY**

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

**Cardiac Presentation**

The echocardiogram in this patient demonstrated normal left atrial size and structure. Chamber volume and blood echogenicity were normal. The cranial and caudal mitral valve leaflets presented minor irregular age-related changes that are not clinically significant at this time with adequate extension in systole and union in diastole. The left ventricle presented normal free wall and septal thicknesses with linear contour. The myocardium presented some echogenic remodeling consistent with expected age-related change. Contractility of the ventricular walls was adequate and in normal range for this breed and patient size. The left ventricular outflow tract demonstrated normal laminar flow with subjectively unremarkable structure. Subjective assessment of the right atrium and auricle revealed normal size, structure and content. No evidence of masses was noted. Tricuspid valvular assessment demonstrated expected findings for this age patient. The right ventricle was of normal size (1/3 diameter of LV), echogenicity and thickness. Pulmonic tract assessment revealed normal valve structure, laminar flow, and diameter (approx. 1:1 pa/ao ratio). No dilation due to heartworm disease, cor pulmonale, stenosis, or pulmonic hypertension was noted. No visible pericardial free pleural fluid was noted. Moderate volume pleural free fluid exhibiting echogenic changes suggestive of cellularity was present. Pericardial probable lung lobes exhibited subjective reduced volume with mild nonhomogeneous parenchyma. No overt evidence of air entrapment or mineralization was observed. No evidence of cardiac or obvious pericardial/mediastinal masses.

**IMAGING PERFORMED BY**

Diane McFadden

**HOSPITAL NAME**

 Fredon Animal  
 Hospital

**REFERRING VET**

Dr. Roche

**INVOICE**

11036ag

**DATE**

07/05/2022

Brief sonographic assessment of the cranial abdomen revealed no overt evidence of hepatic congestion or concurrent cranial abdominal free fluid



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**ULTRASONOGRAPHIC FINDINGS**

**SPECIES**

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- Overtly normal cardiac structure and function
- Non cardiogenic moderate volume pleural free fluid exhibiting echogenic changes
- Subjective probable atypical lung-consolidation, neoplasia or other

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

**BREED**

DSH

No evidence of overt structural or functional cardiomyopathy was observed on this scan as an obvious cause of the patient's pleural free fluid. No overt indication for cardiac medications. Therapeutic and potential diagnostic thoracocentesis for effusion analysis cytology +/- C/S if clinically indicated is suggested. A guarded prognosis is indicated pending pleural fluid diagnostics. A thoracic CT could be considered for further assessment.

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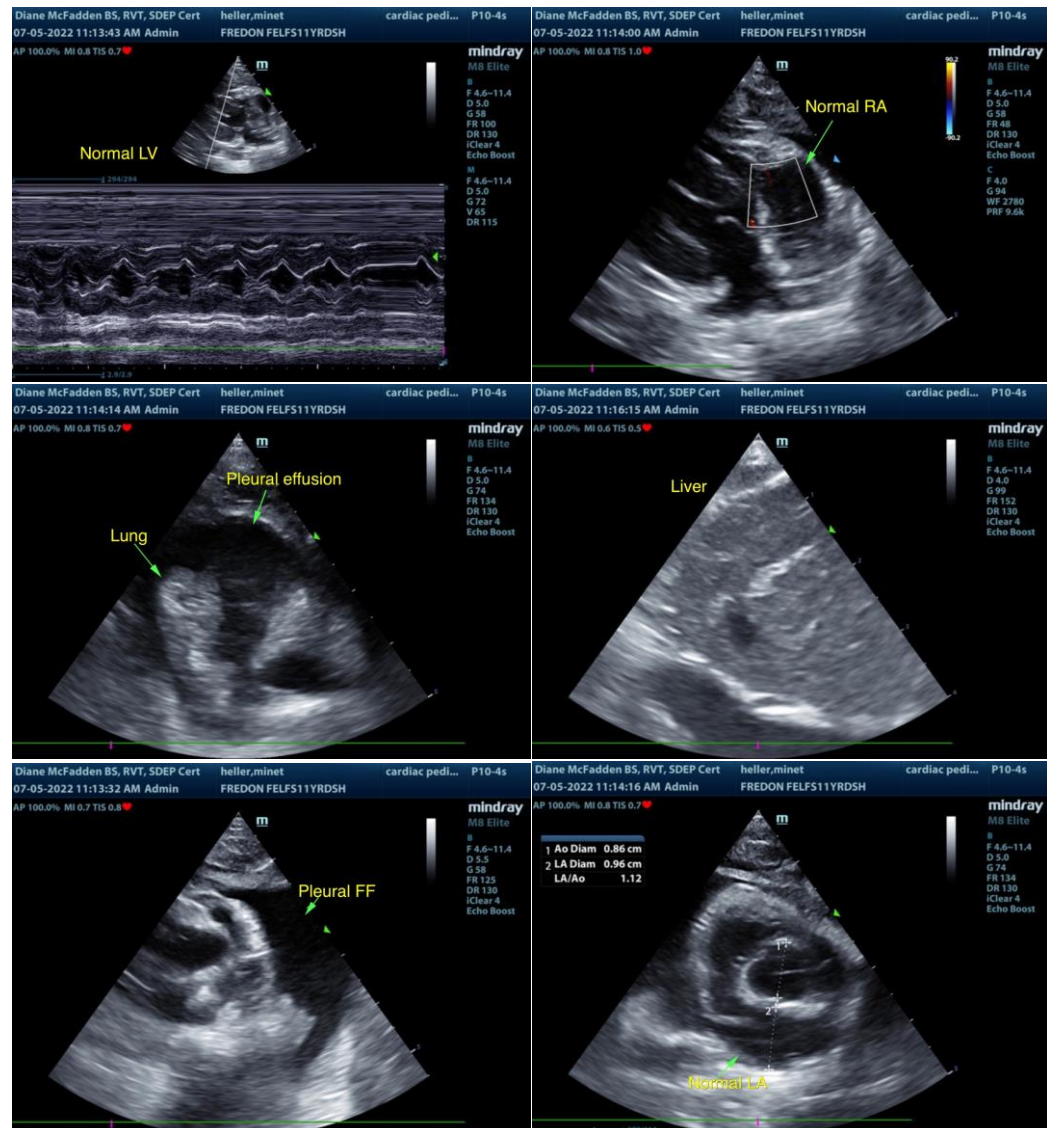
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

**SPECIES**

Feline

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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info@SonoPath.com

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