

**PATIENT**

John Barels

**SPECIES**

Feline

**BREED**

DSH

**SEX**

MN

**AGE**

7 years

**WEIGHT**

9 lbs.

**INTERPRETED BY**

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

**IMAGING PERFORMED BY**

Dr. Gromalak

**HOSPITAL NAME**

SVS Imaging

**REFERRING VET**

Dr. Bittner

**INVOICE**

13134

**DATE**

1/20/22

**PRESENTING CLINICAL SIGNS**

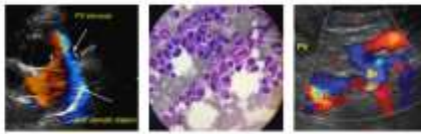
Presented for labored breathing. x rays found pleural effusion. fluid was tapped and sent off. cardiogenic vs respiratory?

**ULTRASONOGRAPHIC EXAMINATION OF THE HEART**

FELINE CARDIAC PARAMETERS	BODY WEIGHT (kg)	HR (BPM)	IVSd (cm)	LVIDd (cm)	LVWd (cm)	FS (%)	EF (%)
<b>NORMAL PARAMETER</b>	-----	150-240	0.3-0.6	1.0-2.1	0.25-0.6	35-67	80-100
<b>PATIENT</b>		244	0.42	1.44	0.42	43.1	77.6
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/)	
<b>NORMAL PARAMETER</b>	<1.5	0.88-1.79	0.7-1.7	<1.6	<1.3	40-60	
<b>PATIENT</b>		1.3	1.3	1.0	1.1	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. The **left ventricle** presented normal 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 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 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). Scant pleural to potential pericardial free fluid was present. No evidence of cranial mediastinal cardiac or pericardial masses were noted in the visible window.



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**ULTRASONOGRAPHIC FINDINGS**

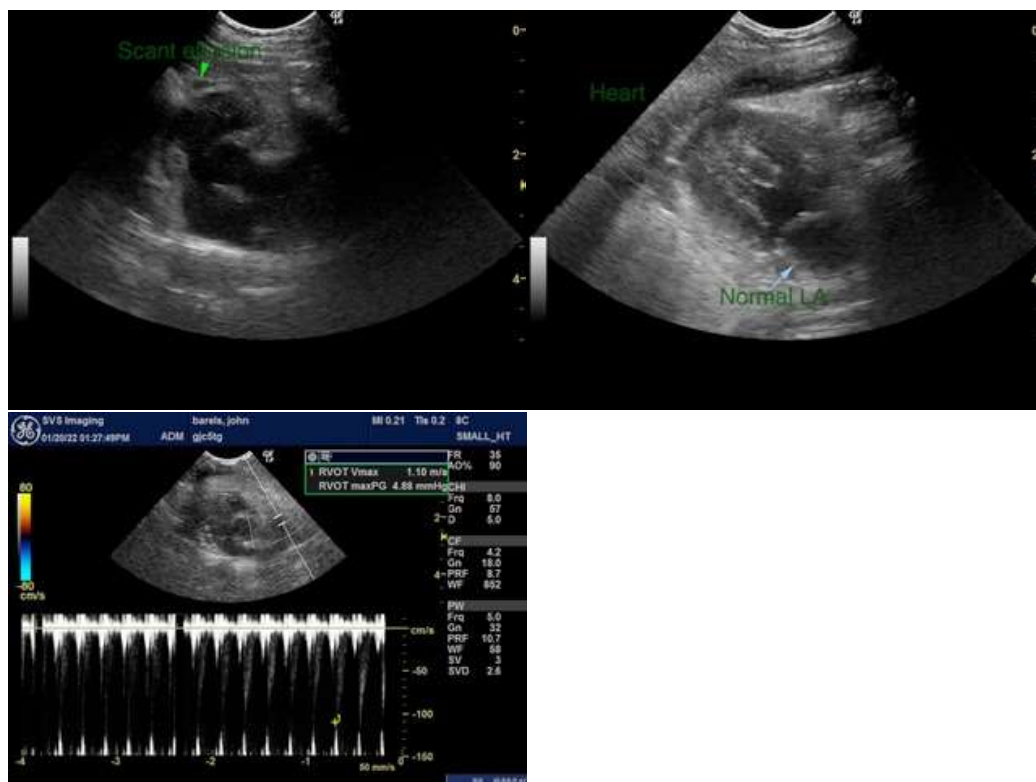
**Primary Findings**

- Overtly normal cardiac structure and function

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

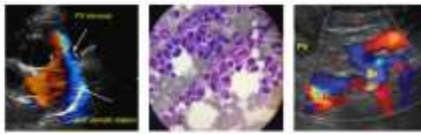
No evidence of significant structural or functional cardiomyopathy without evidence of clinical issues such as systolic dysfunction, left or right heart chamber enlargement, significant valvular insufficiencies or obvious neoplastic disease in the visible window.

Given the cardiac presentation, noncardiogenic pleural effusion is likely. A potential exception to this rule may include iatrogenic or stress-induced event which may potentially lead to effusion with normal cardiac function and left atrium size. Correlation with clinical history is suggested. However, overall noncardiogenic effusion is probable in this case. No indication for definitive cardiac medications. Correlation with effusion analysis, cytology +/- C/S if evidence of inflammatory cells is recommended. Pending effusion analysis, or if considered clinically indicated, diuretic trial at the lowest effective dose with monitoring of renal parameters and clinical response may be considered.



**IMAGING PERFORMED BY**

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1-800-838-4268 info@sonopath.com SonoPath.com

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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**

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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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**info@SonoPath.com**

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