

**PATIENT PRESENTING CLINICAL SIGNS**

**Ella Powers** Presents for as a direct transfer for labored breathing and pleural effusion. Ella has been having very labored breathing for a few days that has worsened. She has not been eating last 2 days, not a lot of drinking, dehydrated and less urine and stool in the litter box. no v/d. She is indoor only. She went to Daniel Island today and she started having open mouth breathing. She was diagnosed with pleural effusion. They gave butorphanol and mask with iso/O2 and performed a thoracocentesis and removed about 30 ml of straw-colored fluid (15 ml from each side). She was breathing better but still had more fluid remaining and had transferred her for further diagnostics and care. P started having labored breathing, acting off/lethargic, not wanting to eat (only licking the wet), decreased drinking, decreased urination, no BM in 3 days, indoor only but goes on patio, o did notice hacking and a slight cough. No vomiting or diarrhea. not prevention, o says UTD on rabies PE: moderate tachypnea, dyspnea, pale pink mm/crt 2 sec, no murmur, mildly muffled ventral BV sounds, soft abdomen, LN wnl, no neuro or orthopedic abnormalities.

**Spayed Female** Abnormal PE/Chem/CBC/UA Results: - PCV/TS 46%/ 7.6 g/dL, BG 131 mg/dL, Lact 3.1 mmol/L - CBC: Neut 12.50 K/uL, Eos 0.08 K/uL - Chem 17: GGT 6 U/L - SNAP Pro BNP: Normal - TFAST: moderate pleural effusion, no pericardial or peritoneal effusion 180/60/BP PENDING

**11 Years ULTRASONOGRAPHIC EXAMINATION OF THE HEART**

WEIGHT	FELINE CARDIAC PARAMETERS	BODY WEIGHT (kg)	HR (BPM)	IVSd (cm)	LVIDd (cm)	LVWd (cm)	FS (%)	EF (%)
5.12 kg								
	<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>		190	0.46	1.23	0.60	--	80
	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>	1.1	--	1.2	1.0	0.9	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

**INTERPRETED BY**

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**IMAGING PERFORMED BY**

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**HOSPITAL NAME**

Vet Specialty Care Blue Pearl Mt Pleasant

**REFERRING VET**

Dr. Shannon Graham

**INVOICE**

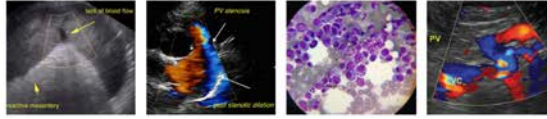
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**DATE**

2/27/23

**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



**PATIENT**  
Ella Powers

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). Large amount of pleural effusion noted. Areas of lung consolidation noted with irregular contour.

**SPECIES**  
Feline

**ULTRASONOGRAPHIC FINDINGS**

- Non-cardiogenic pleural effusion and areas of lung consolidation – strong concern for thoracic neoplasia/carcinomatosis, lymphomatosis, or similar.

**BREED**  
DSH

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

Pleurocentesis and cytospin recommended with immediate slide preparation to assess the non-cardiogenic pleural effusion. The left atrial size is normal in this patient. Abdominal sonogram recommended. Abdominal sonogram recommended to assess for primary disease that may be metastatic to the chest. No cardiac disease present.

**SEX**  
Spayed Female

**AGE**  
11 Years

**WEIGHT**  
5.12 kg

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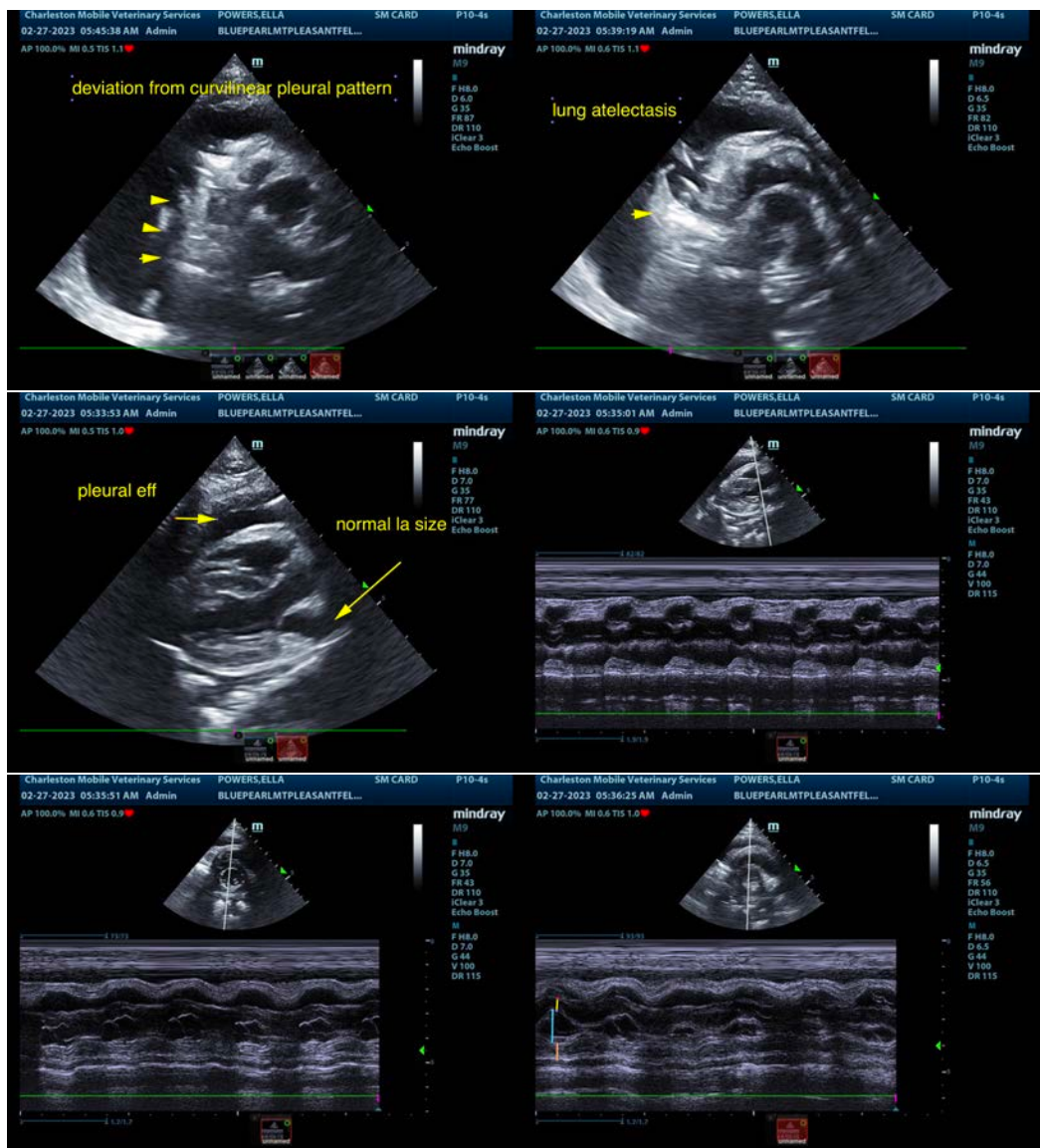
**HOSPITAL NAME**

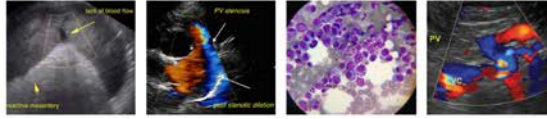
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**PATIENT**

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**BREED**

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**SEX**

Spayed Female

**AGE**

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**WEIGHT**

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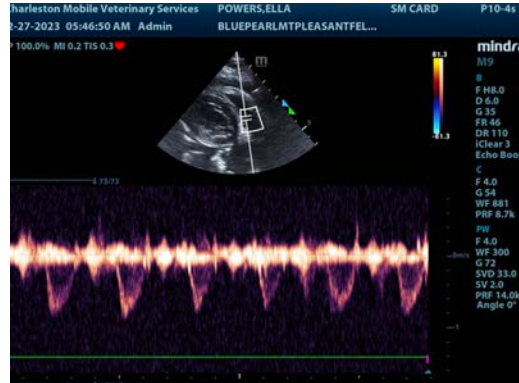
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

**Eric Lindquist, DMV, DABVP, Cert. IVUSS, CEO of SonoPath.com**

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