

**PATIENT PRESENTING CLINICAL SIGNS**

Molly Martin

**SPECIES**

Feline

**BREED**

DSH

**SEX**

Spayed Female

**AGE**

9 Years

**WEIGHT**

4.38 kg

**INTERPRETED BY**

Eric Lindquist, DMV

DABVP, Cert. IVUSS

presents for lethargy, anorexia and trouble breathing. Owner reports that 3 days ago she was hiding in the closet and not wanting to come out and eat or drink. Owner brought her water and she drank quite a bit but hasn't had much since. Has not used litter box and has remained hiding in the closet. No previous issues. Indoor mostly, will go in the backyard some. UTD on vaccines but not prevention. No meds at home. Went to rDVM where they did blood work which was normal and xrays which showed pleural effusion, which was blood-tinged when tapped. Rads post tap - questionable thoracic mass  
Abnormal PE/Chem/CBC/UA Results: Chem: Amyl 1635 (H), Lipa 1571 (H), SDMA 16 (H) BP

**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		NM	0.5	1.1	0.5	40	--
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	1.0	1.0	1.2		--	0.7	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 **left atrium** was volume contracted. 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. Minor **tricuspid** insufficiency noted at 2.0 m/sec, not clinically significant. 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). Non-cardiogenic pleural effusion noted with irregular pleura. Dorsal to the heart base, irregular lung tissue was noted surrounded by pleural effusion, non-cardiogenic.

**PRIMARY FINDINGS**

- Non-cardiogenic pleural effusion
- Irregular pleura and lung – concern for thoracic neoplasia/pulmonary carcinomatosis or similar.

**INVOICE**

39230

**DATE**

7/6/22

**IMAGING PERFORMED BY**

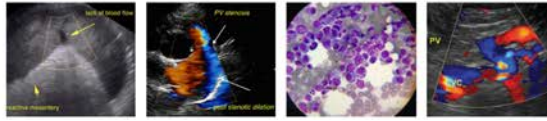
Andrea Nicastro, DVM,  
Diplomate ACVIM  
(Small Animal Internal  
Medicine)

**HOSPITAL NAME**

VSC – Blue Pearl  
Mt. Pleasant

**REFERRING VET**

Dr. Shannon Graham



**PATIENT INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

Molly Martin

Concern for thoracic neoplastic process, likely of lung origin. Pleurocentesis and cytospin recommended to assess for exfoliating neoplasia such as carcinoma or lymphoma. Chest CT would be ideal for further definition, depending upon abdominal findings. Prognosis is guarded. Pleuritis possible, yet less likely.

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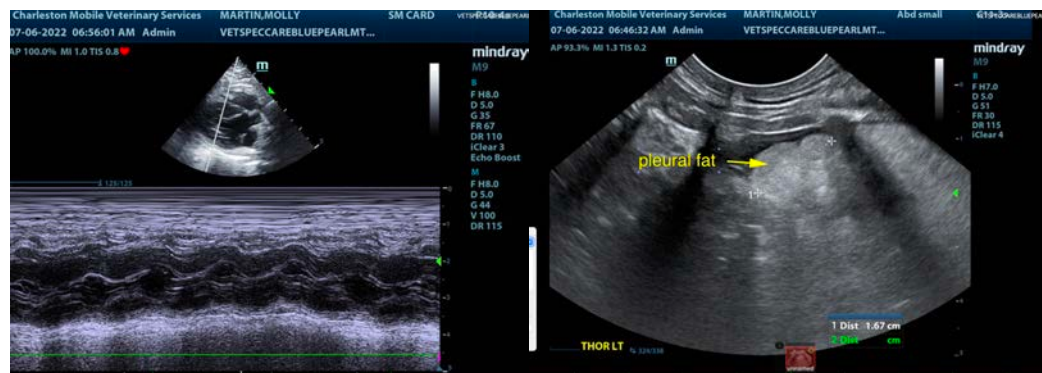
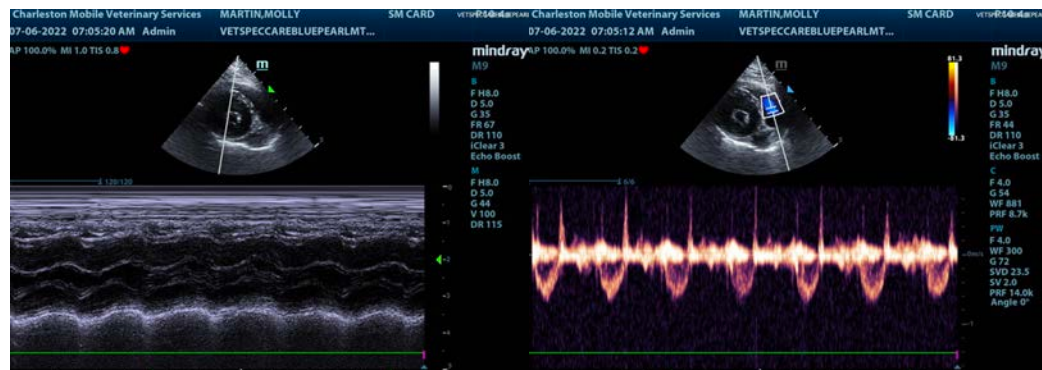
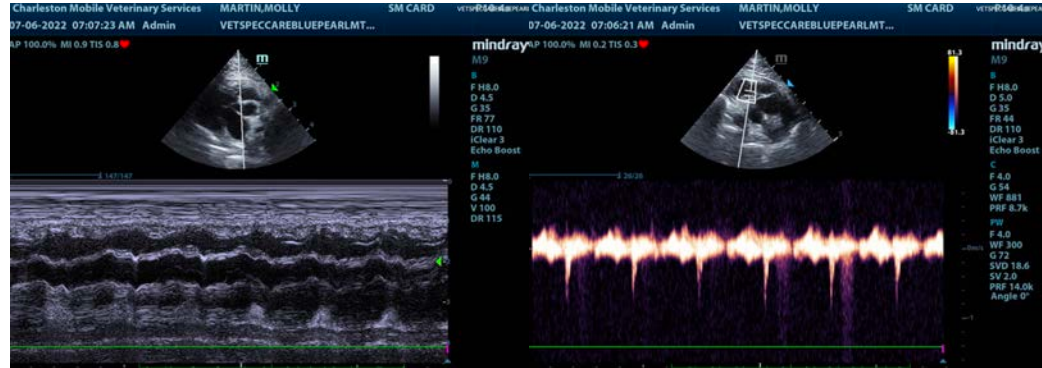
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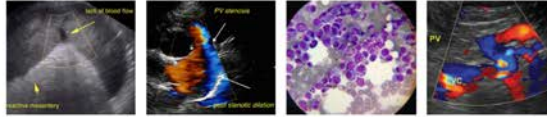
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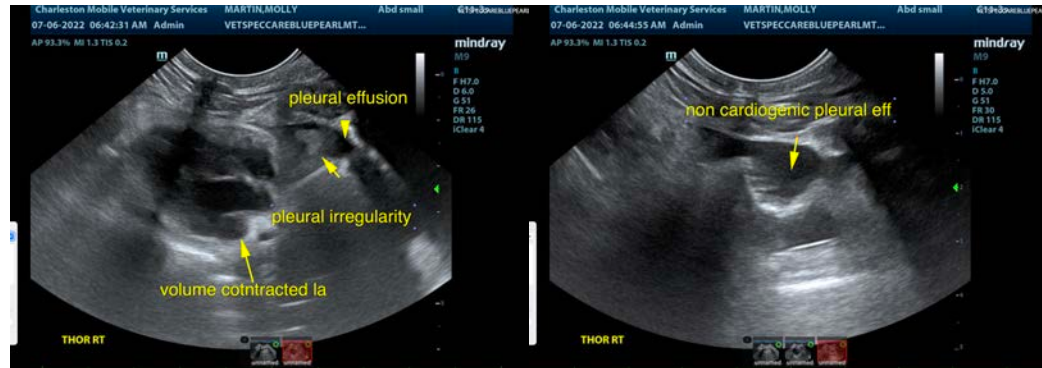
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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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