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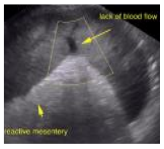
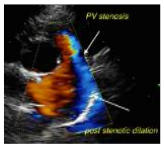
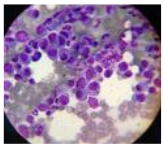
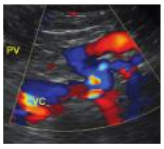

SonoPath.com
1-800-838-4268 info@sonopath.com

PATIENT

Princess Crowley

SPECIES

Feline

BREED

DMH

SEX

Spayed Female

AGE

16 Years

WEIGHT

13.3 Lbs.

INTERPRETED BY

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

IMAGING PERFORMED BY

Dr. Ebersole

HOSPITAL NAME

Scanvet

REFERRING VET

Dr. Giroux

INVOICE

13481

DATE

1/18/22

PRESENTING CLINICAL SIGNS

History: Diabetic, hyperthyroid and CRF. Walking crouched and seems to be breathing heavily at rest. Abnormal PE/Chem/CBC/UA Results: PE: no audible murmur BG 399, T4 4.0, SDMA 22, Creat 2.6, BUN 49. proBNP 898, increased from last year. RADS (attached): heart silhouette seems enlarged.

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	--	Est. 150	0.72	1.3	0.72	43.8	78.5
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	1.83	2.1	1.91		NM	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 moderate increased **left atrial** size and structure without evidence of spontaneous contrast or thrombi. The cranial and caudal **mitral** valve leaflets presented minor thickening without evidence of significant MR. The **left ventricle** presented excessive free wall and septal thicknesses with mild increased endocardium echogenicity and evidence of mild myocardial remodeling. Concurrent minor prominent minor papillary muscle with evidence of remodeling was present. **Contractility** of the ventricular walls was adequate, as evidence by the fractional shortening measurement. The **left ventricular outflow** tract exhibited subjective normal structural integrity and laminar flow. Subjective assessment of the **right atrium** and auricle revealed normal size, structure and content. No evidence of masses was noted. **Tricuspid** valvular assessment demonstrated linear morphology. The **right ventricle** was of normal size with normal chordae structure, myocardial echogenicity and thickness. **Pulmonic** tract assessment revealed normal valve structure, laminar flow, and diameter. Mild to moderate volume pericardial free fluid as well as subjective mild volume pleural free fluid was present. No overt evidence of infiltrative cardiac or pericardial disease or tumors were visible. The cranial mediastinum was free of overt masses in the visible window. Potential mild bradycardia noted.

ULTRASONOGRAPHIC FINDINGS

- Hypertrophic cardiomyopathy
- Moderate LA enlargement- no evidence of spontaneous contrast/thrombi
- Pericardial and pleural free fluid
- Possible bradycardia

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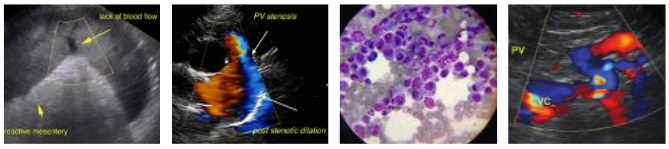

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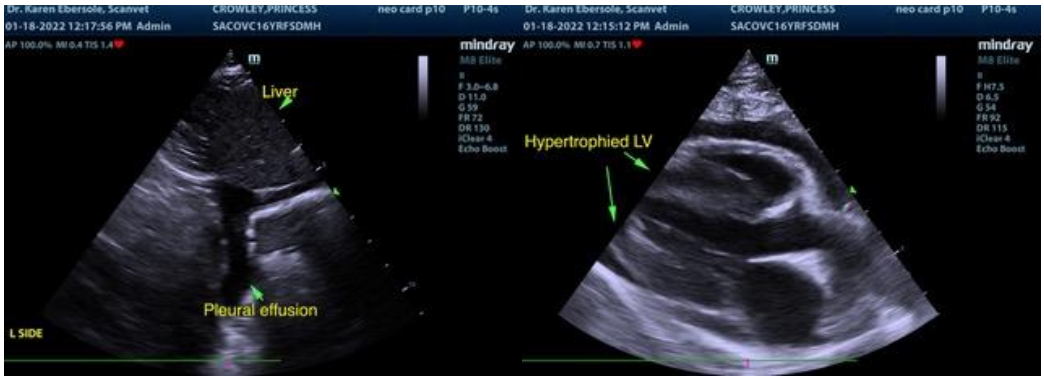
INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Hypertrophic cardiomyopathy is a rule out diagnosis, once the patient is deemed euthyroid and normotensive. Given the patients history, hypothyroid could certainly be a contributing factor in this case if uncontrolled. The left atrium is moderately enlarged, indicating risk for current and future spontaneous CHF and/or blood clot events going forward is elevated. Potential for bradycardia is possible, although, not definitive and potential contributing factors to cardiac function and CHF (i.e., fluid administration, pathologic, bradycardia, etc.) cannot be definitively excluded. Baseline ECG is strongly recommended. However, given the cardiac presentation, cardiogenic pericardial and pleural free fluid is likely.

Hospitalization with continued injectable diuretic and oxygen therapy (until patient is stable) would be appropriate. Once stabilized, diuretic at 1-2 mg per kg PO BID, Pimobendan at 1.25 mg PO BID and (if possible) Clopidogrel at 75 mg, ¼ tab PO SID recommended. Given the azotemia in this patient, close monitoring of renal parameters and blood pressure are strongly advised. The patient will always be at continued elevated risk for recurrent CHF and development of blood clots, indicating guarded prognosis. Recheck echocardiogram suggested in 4-6 months to assess for progression, sooner if continued CHF episodes are noted.



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.

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info@SonoPath.com

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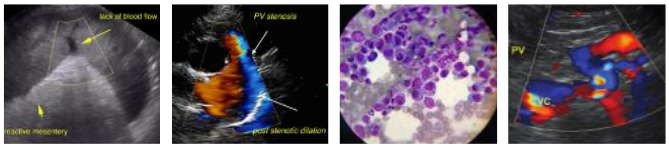

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