



PATIENT

Marco Noble

PRESENTING CLINICAL SIGNS

SPECIES

Feline

month long difficulty w/ breathing that has been getting worse and presented with tachypnea- aspirate of clear blood tinged fluid yields a large number of lymphocytes with malignant characteristics

ULTRASONOGRAPHIC EXAMINATION OF THE HEART

BREED

DSH

SEX

Neutered Male

AGE

3 Years

WEIGHT

7 Pounds

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 200	0.88	0.75	0.84	38.7	72.4
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	NM	3.1	2.2		NM	NM	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

R. McKenzie Daniel,
DVM, DABVP

IMAGING BY

Loetitia Saint-Jacques,
LVT

HOSPITAL NAME

Pine Creek VC

REFERRING VET

Dr. Denny Nolet

Cardiac Presentation

The echocardiogram in this patient demonstrated severely enlarged **left atrial** size with evidence of “smoke”. The cranial and caudal **mitral** valve leaflets appeared mildly thickened. The **left ventricle** presented significantly excessive free wall and septal thicknesses with hypertrophic tendency compared to normal for this species. The **myocardium** presented essentially normal echogenicity without immediate signs of fibrotic or ischemic disease. **Contractility** of the ventricular walls was within normal limits for this patient and as evidenced by the fractional shortening measurement. The **left ventricular outflow** tract exhibited subjective normal 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 linear morphology. The **right ventricle** was of normal size with normal chordae structure, myocardial echogenicity and thickness. **Pulmonic** tract assessment revealed normal valve and diameter. Moderate pleural and pericardial effusion was present. The **mediastinum** and pericardial regions were free of overt masses in the visible window.

ULTRASONOGRAPHIC FINDINGS

INVOICE

25829

- Significant IVS and LV free wall hypertrophy changes
- Severe left atrial enlargement with “smoke”
- Pleural and pericardial effusion

DATE

9/29/21



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INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

SPECIES

Feline

Primary HCM is a rule out diagnosis assuming no evidence of systemic hypertension, obstruction to left ventricular outflow (not overtly evident in this study), and no evidence of underlying endocrine disease such as hyperthyroidism. Given the presence of severe left atrial enlargement with concurrent smoke, the pleural and likely pericardial effusion in this case is suspected to be cardiogenic in origin. Potential for multifactorial causes of effusion such as neoplasia, inflammation or infection cannot be definitively excluded.

BREED

DSH

Effusion analysis, cytology +/- culture and sensitivity (if evidence of inflammatory cells) is recommended for further assessment. Systemic blood pressure assessment is recommended. Going forward, given the severity of the left atrial enlargement, this patient will be at continued risk for CHF as well as thrombus formation. Medical therapy including hospitalization for stabilization (which may include IV diuretic and as-needed oxygen supplementation) may be considered long-term, diuretic therapy, Plavix at 75 mg ¼ tab PO SID +/- off label Pimobendan may prove beneficial. Pending response to therapy as well as effusion analysis, very guarded prognosis is indicated. Recheck echo recommended pending clinical response to therapy (sooner if continued CHF) and/or effusion analysis.

SEX

Neutered Male

AGE

3 Years

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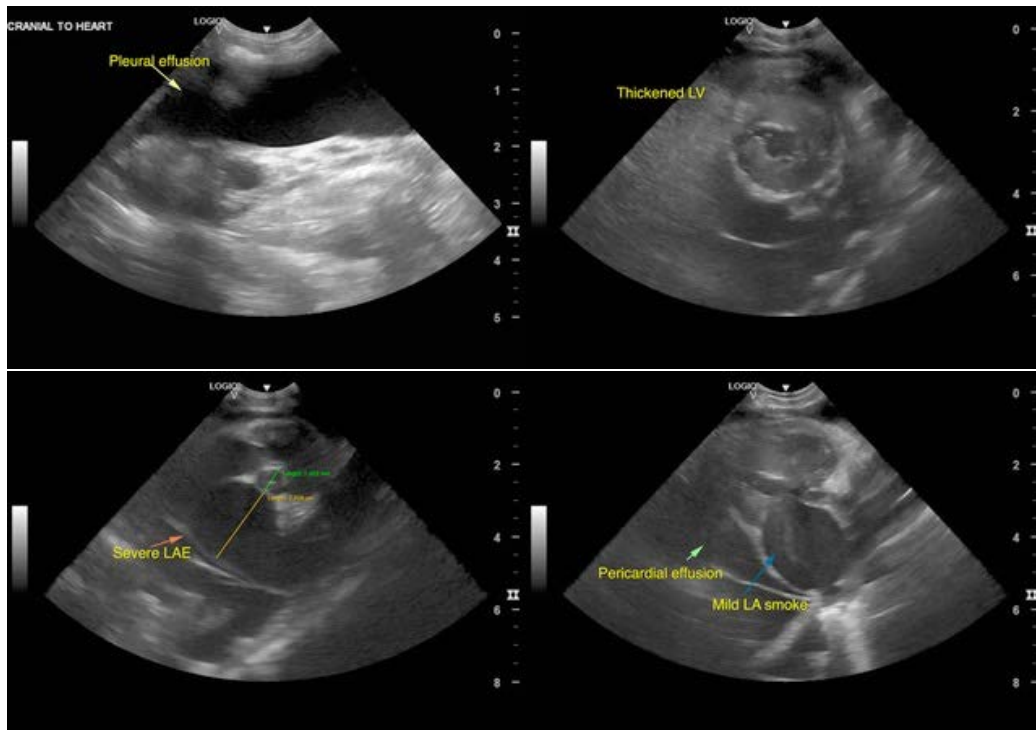
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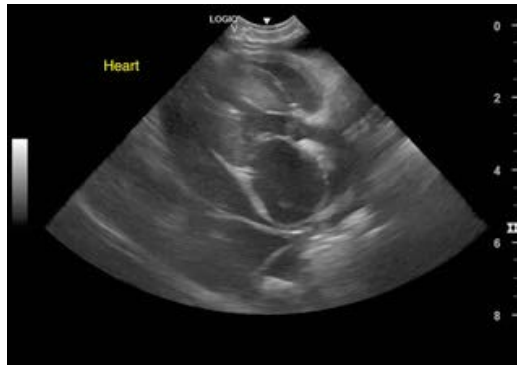
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BREED

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SEX

Neutered Male

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.

AGE

3 Years

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)
info@SonoPath.com

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