



PATIENT

Ivy Morden

SPECIES

Feline

BREED

DSH

SEX

Female Spayed

AGE

16 years

WEIGHT

9.7lbs

INTERPRETED BY

Maggie Machen Lamy,
 DVM DACVIM
 (Cardiology)

IMAGING PERFORMED BY

Amanda Stewart

HOSPITAL NAME

Snelgrove VS

REFERRING VET

Dr. Somal

INVOICE

46618

DATE

1/29/26

PRESENTING CLINICAL SIGNS

History: Paradoxical breathing noted with markedly increased effort, flaring nostrils. Muffled heart and lung sounds. Grade 2/6 heart murmur appreciated, weak pulses. SPO2: Initially 94% on room air, on flow by oxygen 100%, after removing flow by oxygen 98%, not much change noted in effort on flow. CXR showed bilateral pleural effusion, subjectively low cardiac contractility on TFAST (Clarius). Removed 100ml of fluids which has been sent out for analysis and cytology. Butorphanol injection yesterday only.

ELECTROCARDIOGRAPHIC FINDINGS

A six lead ECG is available at 25mm/s; 10mm/mV. The average heart rate is 200bpm. The rhythm is sinus in origin, with a p for every QRS complex and vice versa. The P wave morphology is positive with a normal dimension. Normal PR. The QRS morphology is inverted. The MEA is shifted left. No ectopic beats, pauses or dysrhythmias observed. ECG diagnosis: Normal sinus tachycardia with a left axis deviation.

ECHOCARDIOGRAM FINDINGS

2D, m-mode, color flow and doppler imaging is available. The left ventricular wall is normal in dimension. There is a mildly hyperechoic endocardium consistent with age-related fibrosis. Mild remodeling. The papillary muscles are hyperechoic yet normal in size. The left atrium is normal in size. The right atrium is normal in size. The right ventricle appears normal. The mitral valve is normal in structure and mobility. No MR or SAM identified. The tricuspid valve appears normal in structure and mobility. No TR. Blood flow through both the LVOT and RVOT are normal in velocity. No AI/PI seen. Large volume pleural effusion. Scant pericardial effusion. No obvious cardiac tumors.

CARDIAC CHART

FELINE CARDIAC PARAMETERS	BODY WEIGHT (kg)	HR (BPM)	IVSd (cm) (Moise, Pipers)	LVIDd (cm) (Moise, Pipers)	LVWd (cm) (Moise, Pipers)	FS (%)	EF (%)
NORMAL PARAMETER	-----	150-240	0.35-0.55	<2 (mean 1.5)	3.5-0.55	35-67	80-100
PATIENT	4.4	NM	0.43	1.38	0.41	38	70
FELINE CARDIAC PARAMETERS	LA/AO (Boon)	LA/AO HEART BASE (Swe) (Abbott)	LA 2D short axis Base view (cm) (Abbott)		LVOT VEL (m/s)	RVOT VEL (m/s)	E max (m/s)
NORMAL	<1.5	<1.3	<1.2		<1.6	<1.3	<0.9
PATIENT	1.5	1.4	1.3		0.9	0.9	NM

*Note: All measurements based upon multi-modal images and methods. An average value is reported. Adapted from June Boon, Veterinary Echocardiography, 1998. Abbott J & MacLean H JVIM 2006;20: 111-119, Moise et al. Am J Vet Res 47:1476, 1986. Pipers et al. Am J Vet Res 40:882, 1979.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Overtly normal cardiac structure and function. Mild fibrosis of the left ventricular wall is noted, which is likely a normal age-related variant. No significant valve leaks are noted, and flow through the great vessels is normal in velocity. No definitive cause for the murmur is identified in this study, making it likely physiologic in origin (i.e. secondary to tachycardia, volume changes, etc.). The ECG is largely normal with a sinus tachycardia. A left axis deviation is a benign conduction abnormality common in older cats.



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These findings would certainly suggest pleural effusion is noncardiogenic in origin. Follow up and treatment should be dictated by results of cytology and systemic screening. A thoracocentesis should potentially be repeats, as the volume remains significant. Focused thoracic ultrasound, 3-view CXR when stable, abdominal workup, etc. should all be considered.

SPECIES

Feline

Given these findings and a normal LA dimension, no medications are indicated. Prognosis is open.

BREED

DSH

No cardiac contraindication for general anesthesia. Risk for complication with steroid or fluid use typically follows LA dilation, which in this case is low. That said, any cat can experience acute intolerance and monitoring for this phenomenon is always advised (a change in RR/RE, particularly during the initiation phase).

SEX

Female Spayed

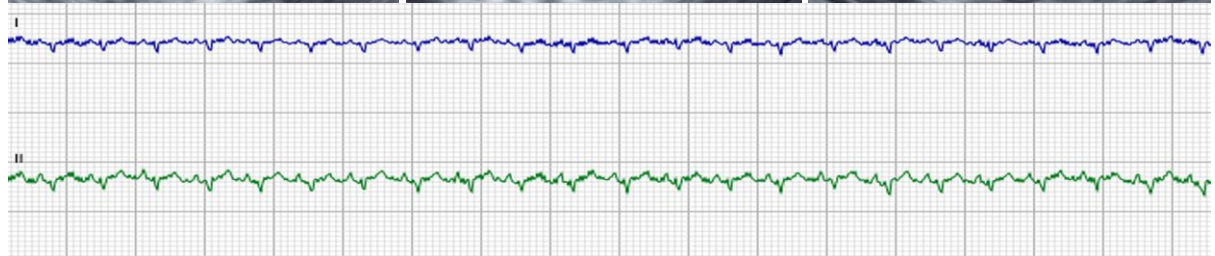
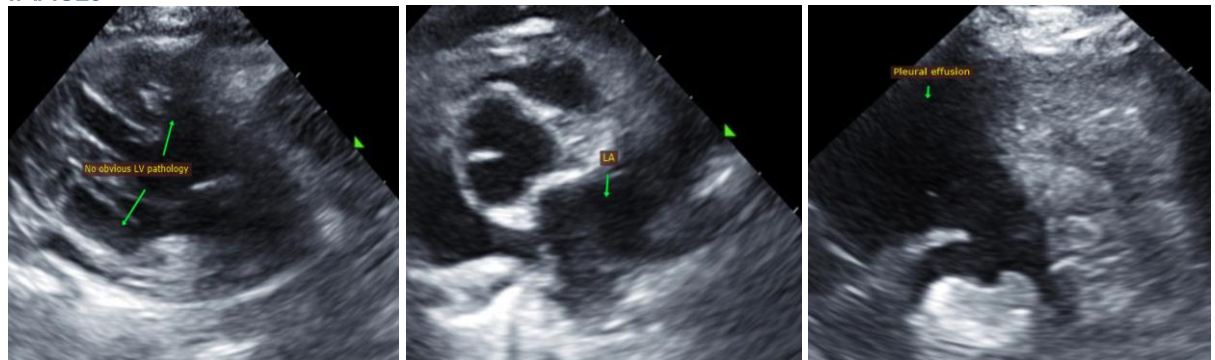
Monitor at home for signs of cardiac compromise, including respiratory changes and/or signs of a blood clot event (paralysis, neurologic changes).

AGE

16 years

Recommend recheck echocardiogram in 1 year to assess for any progressive issues or development of disease the pre-existing murmur may mask.

IMAGES



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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.

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Thank you for this referral. This report was generated using transcription software, and minor dictation errors may be present. If the clinical or image interpretation does not parallel your findings or if I can be of any further assistance, please contact me.

DATE

1/29/26

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