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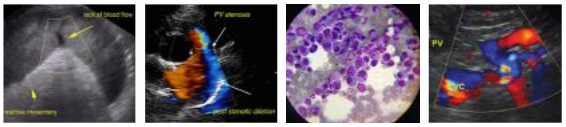


ANIMAL SOUNDS NW
MOBILE VETERINARY ULTRASOUND
IMAGING PERFORMED BY
AnimalSoundsNW.com 541-357-9423

PATIENT
Roger Weiss

SPECIES
Feline

BREED
DSH

SEX
Male Neutered

AGE
12 years

WEIGHT
11.2lbs

INTERPRETED BY
Maggie Machen Lamy, DVM, DACVIM (Cardiology)

IMAGING PERFORMED BY
Sara Hansen

HOSPITAL NAME
Better Vet Eugene Mobile Vet Care

REFERRING VET
Dr. Rensema

INVOICE
30365

DATE
5/5/23

PRESENTING CLINICAL SIGNS

History: Mild tachycardia with intermittent auscultable dropped beats or early beats. These episodes are associated with non-palpable pulses. BP: 200mmHg.
-Current medications: 1.25IU glargine BID; just started 0.625mg amlodipine SID.

ELECTROCARDIOGRAPHIC FINDINGS *Note: Single lead ECGs are evaluated as a rhythm strip. Morphology/MEA cannot be definitively commented on.

A brief six lead ECG is available; 50mm/s, 10mm/mV. mm marks cannot be visualized. The heart rate appears reasonable. Two isolated VPCs are noted; monomorphic, singles only. No supraventricular premature beats, pauses or other dysrhythmias observed.
ECG diagnosis: Normal sinus rhythm with isolated VPCs.

ECHOCARDIOGRAM FINDINGS

2D, m-mode, color flow and doppler imaging is available. The left ventricular walls are normal in diameter. There is a diffusely hyperechoic endocardium consistent with fibrosis. The endocardium also appears mildly remodeled. The left atrium is normal in size. Trace mitral regurgitation; MV appears normal. The right atrium is normal in size. The right ventricle appears normal (subjective). Trace TR. Blood flow through the RVOT is normal in velocity. No obvious PI or AI. No obvious LVOTO/SAM on 2D imaging. No obvious cardiac tumors identified. No effusions.

CARDIAC CHART

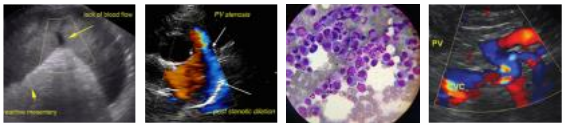
FELINE CARDIAC PARAMETERS	BODY WEIGHT (kg)	HR (BPM)	IVSd (cm) (Moise, Pipers)	LVIDd (cm) (Moise, Pipers)	LVWd (cm) (Moise, Pipers)	FS (%)	EF (%)
NORMAL PARAMETER	------	150-240	0.35-0.55	<2 (mean 1.5)	3.5-0.55	35-67	80-100
PATIENT	5.1	NM	0.48	1.7	0.49	53	90
FELINE CARDIAC PARAMETERS	**LA/AO** (Boon)	**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	1.4	1.2	1.3		1.0	1.4	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 geriatric cardiac structure and function with normal LV wall measurements and mild remodeling/fibrosis. This degree of abnormality is suspected to be a normal age-related finding; however, serial monitoring is recommended to screen for progressive changes. The LA is normal at this time, indicating a low risk for clinical complications. No additional issues are identified.

The ECG does show isolated VPCs as the cause of the arrythmia. No obvious cardiac cause is identified in this study, although fibrotic tissue can theoretically lead to their development. Extra-cardiac factors such as stress, pain, inflammation, systemic disease, etc. should be



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considered and ruled out. **The patient is reportedly hypertensive, which may be enough to explain this development. Consider getting the blood pressure well controlled and reassessing the ECG. Additionally, further systemic evaluation should be performed, simply due to the presence of SHT.** No treatment for the arrhythmia is warranted based upon what is seen here. Follow up is recommended. Monitor for any signs of progressive arrhythmia, including significant lethargy or collapse/syncope. Sudden death is unfortunately always a possibility in animals with arrhythmias, regardless of anti-arrhythmic therapy.

Anesthetic risk is considered mild, however judicious IV fluid rates are advised to avoid fluid overload. Additionally, drugs that stimulate heart rate should be avoided unless clinically necessary (glycopyrrolate, atropine). Avoid ketamine, telazol, alpha 2 agonists. A reasonable protocol includes opioid/benzodiazepine premedication, propofol induction, and isoflurane maintenance. Monitor ECG intra and post-operatively, with careful intervention if ventricular arrhythmias are sustained (i.e., sustained VT) and lead to hemodynamic compromise.

Monitor for any development of clinical signs at home, including labored breathing, cough or signs of a blood clot (paralysis, neurologic change).

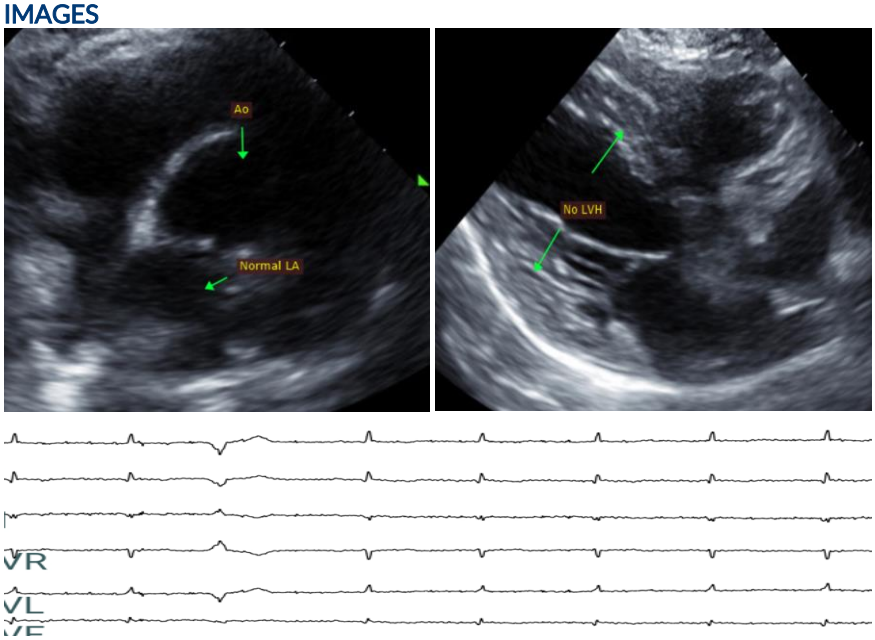
No cardiac medications are clearly indicated.

PLAN

Reassess BP to determine if further vasodilator therapy is warranted; target stressed BP is <160mmHg in hospital. Full systemic evaluation is recommended to screen for underlying causes of SHT/VPCs. Once the BP is well controlled, a repeat ECG should be evaluated.

A recheck echocardiogram and ECG are recommended in 6 months to screen for progressive LV changes.

IMAGES



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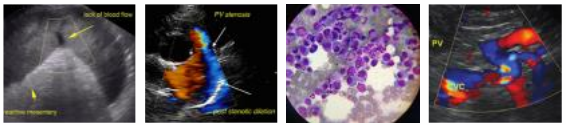

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The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

Maggie Machen Lamy, DVM
Diplomate of the American College of Veterinary Internal Medicine (Cardiology)
info@sonopath.com