



PATIENT PRESENTING CLINICAL SIGNS

Luna Bech

History: Arrhythmia.

SPECIES

Feline

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

BREED

Scottish Fold

A single lead ECG is available; 25mm/s, 10mm/mV. The average heart rate is 150bpm with a largely regular rhythm. The rhythm is sinus in origin, with a p for every QRS complex and vice versa. The P morphology is positive. The QRS is inverted. Isolated VPCs throughout with periods of trigeminy. Singles only, monomorphic. No supraventricular premature beats, pauses or other dysrhythmias observed. ECG diagnosis: Isolated VPCs.

SEX

Female Spayed

ECHOCARDIOGRAM FINDINGS

2D, m-mode, color flow and doppler imaging is available. The left ventricular wall is irregular yet largely normal in dimension. There is a mildly hyperechoic endocardium consistent with fibrosis. The endocardium also appears remodeled. Remodeled papillary muscles. The left atrium is normal. The right atrium is normal in size. The right ventricle appears normal. The mitral valve is normal in structure and mobility. No MR. Trace TR. Blood flow through both the LVOT and RVOT are normal in velocity. The aortic valve is mildly thickened with mild AI. No PI. No effusions or obvious cardiac tumors identified.

AGE

4 years

WEIGHT

6.2lbs

CARDIAC CHART

INTERPRETED BY

Maggie Machen Lamy,
DVM, DACVIM
(Cardiology)

| FELINE CARDIAC PARAMETERS | BODY WEIGHT (kg) | HR (BPM) | IVSd (cm) (Moise, Pipers) | LVIDd (cm) (Moise, Pipers) | LWVd (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 | 160 | 0.41 | 1.56 | 0.40 | 46 | 81 |
| 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 | 1.3 | 1.2 | 1.2 | | 0.8 | 0.9 | NM |

IMAGING PERFORMED BY

Val Shumskaya

HOSPITAL NAME

The Venturing Vet

REFERRING VET

Dr. Herzog

INVOICE

31629

DATE

6/29/23

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Overtly normal cardiac structure and function. There is mild LV remodeling and fibrosis, which is likely a normal variant. Serial echocardiography will be necessary to determine progression. Regardless, the LA measures normal indicating low risk for complication. Mild is noted with a mildly thickened valve, a baseline BP is strongly recommended. No additional issues are identified.

The ECG shows frequent ventricular premature contractions, coming periodically in a trigeminal pattern. VPCs are generated from abnormal conductive or fibrotic tissue in the ventricles of the



PATIENT

Luna Bech

heart muscle, and even frequent single VPCs will often cause no clinical signs in cats. When sustained however, ventricular tachycardia can lead to symptoms such as lethargy and collapse.

SPECIES

Feline

VPCs are a very non-specific finding. They can be due to significant cardiac disease (not present in this study) or be extra-cardiac in origin, i.e., due to pain, stress, inflammation, cancer, GI disease, DIC/sepsis, etc. In this 4-year-old cat, all differentials should be ruled out. An abdominal ultrasound to monitor for any underlying abnormalities, in addition to tick titers and cardiac troponin level can be considered. Additionally, a thoracic CT can be considered to screen for masses or abnormalities too small to find easily on echocardiogram. Unfortunately, there is always an elevated risk for collapse and sudden death in any arrhythmic patient, and even on medications this risk unfortunately still persists.

BREED

Scottish Fold

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Based strictly upon the amount of arrhythmia present on the available ECG, anti-arrhythmic therapy could be debated. The difficulty in cats is they are highly sensitive to anti-arrhythmic medications and treating can lead to more issues than not treating. Additionally, holter monitoring cats is not typically an option, and we are left with making our best clinical decision. In this asymptomatic cat, I would not recommend therapy at this time. That being said, close monitoring at home is advised and the owners should be warned of possible complications such as syncope and sudden death.

AGE

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WEIGHT

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Anesthesia is not advised due to ventricular arrhythmias. Sedation using Butorphanol can be considered if needed for further evaluation.

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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

Consider systemic evaluation as discussed.

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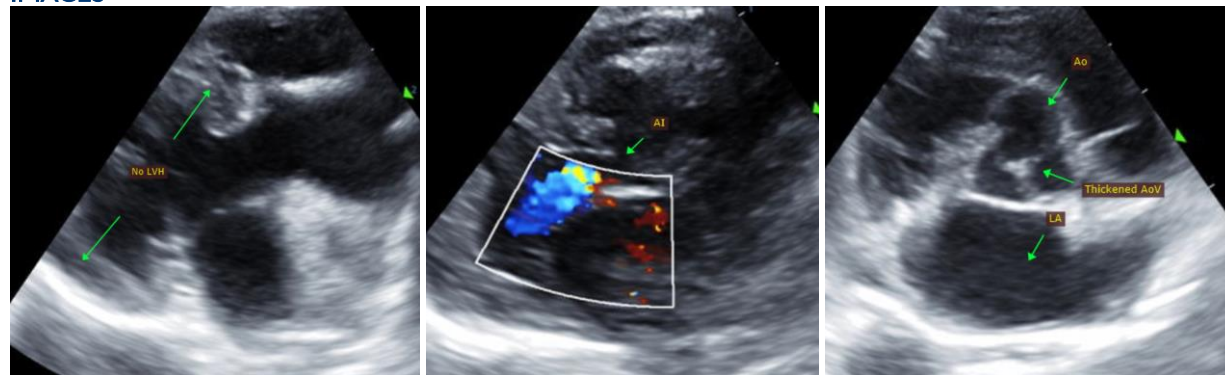
Val Shumskaya

A recheck ECG and echocardiogram is recommended in 6 months, sooner if any issues arise.

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IMAGES



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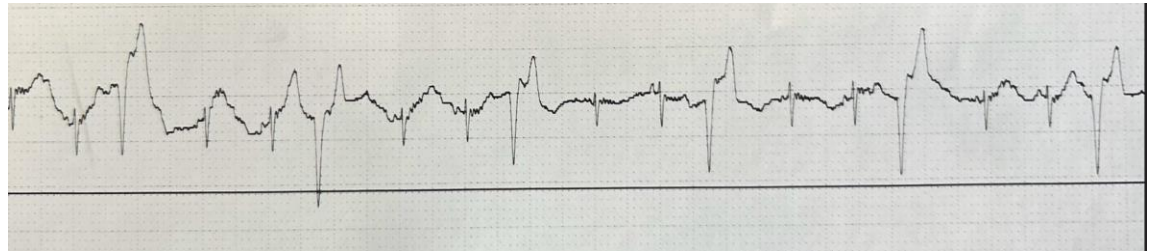
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The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

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