



PATIENT

Nemo Lowery

SPECIES

Feline

BREED

DLH

SEX

Male Neutered

AGE

6.9 years

WEIGHT

15lbs

INTERPRETED BY

Maggie Machen Lamy,
DVM, DACVIM
(Cardiology)

IMAGING PERFORMED BY

Liz Berndt, DVM

HOSPITAL NAME

College Park Animal
Hospital - VetCor

REFERRING VET

Dr. Berndt

INVOICE

46418

DATE

1/13/26

PRESENTING CLINICAL SIGNS

History: History of an arrhythmia with HR of 120bpm. Elevated BNP: 212. Assess prior to dental. Sedated with Torb and Alfaxalone.

ELECTROCARDIOGRAPHIC FINDINGS

A six lead ECG is available at 25mm/s; 5mm/mV. The sinus/P wave rate is 200bpm. No obvious P to Q correlation is seen. An escape rhythm is seen throughout; HR is 115bpm. Occasional premature beats suspected. No further comment can be made due to low voltage complexes. ECG diagnosis: Suspect complete/3rd degree AV block with a slow junctional or ventricular escape rhythm. Occasional premature beats suspected.

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 fibrosis. The endocardium is remodeled. False tendons. The papillary muscles are hyperechoic. 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. The tricuspid valve appears normal in structure and mobility. No TR. Blood flow through both the LVOT and RVOT are normal in velocity. No effusions. 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 | 6.8 | NM | 0.48 | 1.5 | 0.48 | 60 | 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 | NM | 1.3 | 1.3 | | >0.8 | 0.7 | 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 is identified in this study. 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.

The ECG does show an arrhythmia with third degree (or complete) AV block. A ventricular escape rhythm is present, with a HR of 115bpm. While AV block is considered a progressive arrhythmic disease, many cats will remain asymptomatic for potentially months to years given adequate cardiac output with this heart rate. Of some concern is the relatively young age of the patient. Should the escape rhythm deteriorate over time, progressive bradycardia will be noted with concurrent issues such as collapse or lethargy. An epicardial pacemaker becomes necessary in



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this scenario, in order to maintain QOL at that time, with euthanasia as an alternative option. Continued monitoring is advised; however, no treatment for the arrhythmia is indicated at this time as the patient is asymptomatic for this finding. Sudden death is a clear possibility with arrhythmic cats, and this should be expressed to the owner.

Given that the cardiac structure and function is normal, no medications are clearly indicated at this time. Consider referral to a local Cardiologist to establish a relationship and discuss surgical options for the future should the patient become symptomatic.

Full systemic screening may be reasonable to assess for any underlying issues that may be contributing. This includes lab work, screening radiographs, abdominal workup, etc.

Monitor at home for any respiratory issues or signs of blood clot events (neurologic change, paralysis, etc.).

Prognosis is guarded long term, however prior to clinical signs many cats can remain stable for some time.

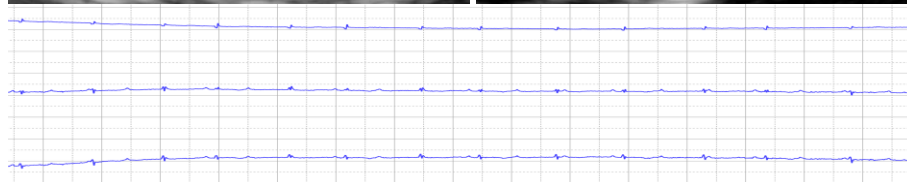
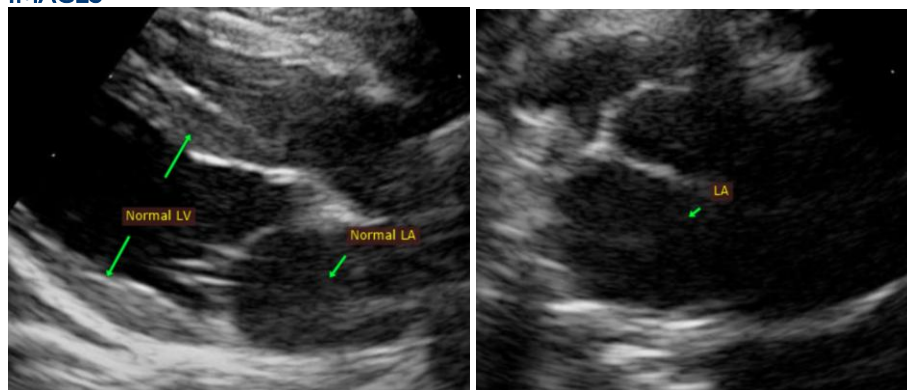
Anesthetic risk is considered high and is not advised. There is no contraindication for fluid or steroid therapy; however, any cat has risk for acute intolerance. Monitor breathing rates carefully particularly in the initiation phase.

PLAN

Full systemic screening as discussed. If a pacemaker would be an option in the future, consider referral as discussed.

Immediate reevaluation of the arrhythmia is advised should the patient experience any acute lethargy or collapse. If the patient does well, reassessment of the rhythm and echocardiogram is recommended in 6 months.

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.

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
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