



PATIENT

Ella Hein

SPECIES

Feline

BREED

DSH

SEX

Female Spayed

AGE

10 years

WEIGHT

6lbs

INTERPRETED BY

Maggie Machen Lamy,
DVM, DACVIM
(Cardiology)

IMAGING PERFORMED BY

Kim Liedberg

PRESENTING CLINICAL SIGNS

History: Recheck echo. History of fainting episodes.

-Current medications: Plavix 75mg 1/4-tab po SID, History of uncontrolled hyperthyroidism and started on methimazole 5mg 1/2 tabs po BID.

-Sedation: Gabapentin.

-Pertinent previous echo findings (5/2021): IVSd: 0.57, LVWd: 0.59, LA/AO: 1.0.

ECHOCARDIOGRAM FINDINGS

2D, m-mode, color flow and doppler imaging is available. The left ventricular wall and chamber are largely normal in dimension with borderline wall thickness. There is a mildly hyperechoic endocardium consistent with remodeling with irregularity to the endocardial surface. Mild papillary muscle remodeling. The left atrium is normal in size. The right atrium is normal in size. No TR. The right ventricle appears normal. The mitral valve is normal in structure and mobility. An intermittent LVOTO can be seen on color flow and 2D imaging, with mild secondary mitral regurgitation. A dynamic RVOT obstruction is seen on both color flow and Doppler. No pulmonic insufficiency noted. No evidence of cardiac tumors or metastatic lesions on this scan. No pleural or pericardial effusion seen.

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 | 2.7 | 220 | 0.55 | 1.3 | 0.55 | 67 | 95 |
| 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 | 1.3 | 1.2 | | 1.2 | 2.5 | 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.

HOSPITAL NAME

SVS Imaging WI

REFERRING VET

Dr. Teixeira

INVOICE

25158

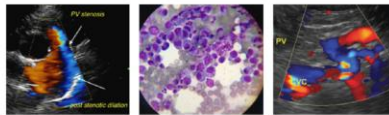
DATE

7/5/22

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The cause of the murmur is two-fold, with a heart rate dependent flow obstruction through both the left and right ventricular outflow tracts. DRVOTO/LVOTO to this degree is a largely physiologic finding (i.e., benign and of no clinical significance) in the absence of significant LV hypertrophy given an otherwise normal LV and LA dimension. Monitoring is advised going forward, as this may be the first indicator of early HOCM. Mild LV remodeling and fibrosis of the left ventricular wall is noted, likely a normal variant. No additional issues are identified. Compared to what is available from the prior study, the wall/LA dimensions are similar.

It is unclear if the syncopal episodes are a current or previous issue; however, a prior issue is suspected. These should not be related to this degree of structural changes, which are minimal.

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Additionally, no indication to continue Plavix in the absence of atrial dilation and this can safely be discontinued (unless being utilized for an alternative purpose).

SPECIES

Feline

From a clinical standpoint, the atrial dimensions are normal indicating low risk for associated complications. Given these findings, no medications are indicated at this time. This patient will however be at risk for IV fluid overload given the diastolic dysfunction and remodeling, and this should be considered should fluids become indicated in the future.

BREED

DSH

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 vasodilators as this may worsen the obstruction. A reasonable protocol includes opioid/benzodiazepine premedication, propofol induction, isoflurane maintenance. Additionally, steroids should be used with caution on older cats, as even a 'normal' geriatric heart can develop evidence of intolerance and fluid retention.

SEX

Female Spayed

PLAN

No obvious indication to continue Plavix based upon the information available. Screening blood pressure and T4 are recommended every 6 months.

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Recommend recheck echocardiogram in 6-12 months to assess for any progression.

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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.

HOSPITAL NAME

SVS Imaging WI

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.

REFERRING VET

Dr. Teixeira

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