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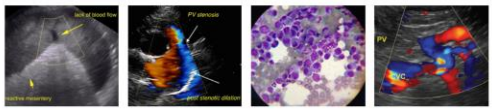

SonoPath
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PATIENT
Norman Sweeney

SPECIES
Feline

BREED
DSH

SEX
Male Neutered

AGE
10.5 years

WEIGHT
14.5lbs

INTERPRETED BY
Maggie Machen Lamy, DVM DACVIM (Cardiology)

IMAGING PERFORMED BY
Pamela Harrigan, RDCS

HOSPITAL NAME
West Roxbury Animal Hospital

REFERRING VET
Dr. Kaplan

INVOICE
30361

DATE
4/20/23

PRESENTING CLINICAL SIGNS

History: Episode of syncope last Tuesday. Was playing - cried out - collapsed. Within 15 minutes walking around. Salivated during episode. No paddling of legs. No vomiting or defecation. Grade III/VI heart murmur. Labs normal. Current meds: 1) Plavix 1/4 pill (18.75) once/day, 2) Pimobendan 1.5 pills (1.85mg) twice a day. Radiography results: Enlarged heart, enlarged left atrium. Enlargement of cranial lumbar pulmonary veins and caudal lobar pulmonary arteries. Conclusion: PAH, possible early CHF. Lower airway disease. Faint pleural fissure lines. Bronchointerstitial pattern.

ELECTROCARDIOGRAPHIC FINDINGS

A six lead ECG is available at 25mm/s; 10mm/mV. The average heart rate is 214bpm with a largely regular rhythm. 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 positive with normal dimension. MEA is normal. A single VPC is identified. No supraventricular premature beats, pauses or other dysrhythmias observed. ECG diagnosis: Normal sinus tachycardia with a single VPC.

ECHOCARDIOGRAM FINDINGS

2D, m-mode, color flow and Doppler imaging is available.
Left ventricle: The LV diameter is normal with adequate myocardial function. The LV wall thicknesses are asymmetric with moderate hypertrophy overall. There is a diffusely hyperechoic endocardium consistent with mild fibrosis. The papillary muscles are hypertrophied and hyperechoic. The endocardium appears mildly remodeled.
Left atrium: The left atrium is severely dilated. Dilated auricle. No obvious spontaneous contrast; no thrombi seen.
Mitral valve: The mitral valve is normal in appearance. Mild systolic anterior motion is seen with mild eccentric MR. Normal velocity.
Aortic valve/Aorta: The aortic valve is normal in morphology and mobility. Mildly elevated LVOT velocity. No aortic insufficiency.
Right ventricle: Normal right ventricular diameter and morphology indicating no overt evidence of pulmonary arterial hypertension.
Right atrium: The right atrium is normal in dimension.
Tricuspid valve: The tricuspid valve appears normal with no tricuspid regurgitation.
Pulmonic valve/Pulmonary artery: The pulmonic valve is normal in morphology and mobility. No pulmonic insufficiency. Normal RVOT velocity.
Pericardium/other: No pericardial effusion. No obvious pleural effusion noted. No obvious cardiac masses.

2-Dimensional Measurements

Ao diam (cm)	1.2
LA diam (cm)	1.96
LA:Ao (Swe)	2.0
IVS thickness (cm)	0.75
LVID diastole (cm)	1.3
PW thickness (cm)	0.63
LVID systole (cm)	0.5
FS (%)	63

Doppler Measurements

PV Vmax (m/s)	1.3
AoV Vmax (m/s)	3.0
MR Vmax (m/s)	NA
TR Vmax (m/s)	NA
TR PG (mmHg)	NA

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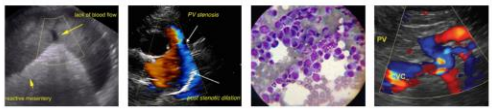

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INTERPRETATION OF THE FINDINGS

Hypertrophic obstructive cardiomyopathy (HOCM) is identified with LV thickening, an LVOT obstruction (SAM) and secondary MR. The degree of disease is significant with moderate LVH and significant LA dilation. This degree of left atrial dilation confers an elevated risk for complication (spontaneous CHF and/or a thrombotic event) going forward. No additional issues are identified and no obvious PAH/MPA dilation is seen.

Given these findings in addition to the radiograph report, full lifelong cardiac support is recommended as below including diuretic therapy. Because of the concurrent asthma and a mild obstruction overall, I would not utilize Atenolol at this time. Reassessment is recommended should the episodes recur in the future.

The severity of disease has also led to an arrhythmia with a VPC identified. What is seen here is mild and does not warrant therapy. Monitoring is recommended.

Long term prognosis is poor, with high risk of recurrent CHF, malignant arrhythmias, and/or blood clot events going forward.

This patient has several reasons for syncope, including an obstruction that may worsen at elevated heart rates, early CHF, respiratory disease that may predispose to hypoxia and risk for thrombotic events. It is unclear which is to blame at this time. That being said, the length of the episode (if truly 15 minutes) is NOT consistent with syncope, and neurologic issues must also be considered. Further evaluation is advised if the episodes persist despite therapy.

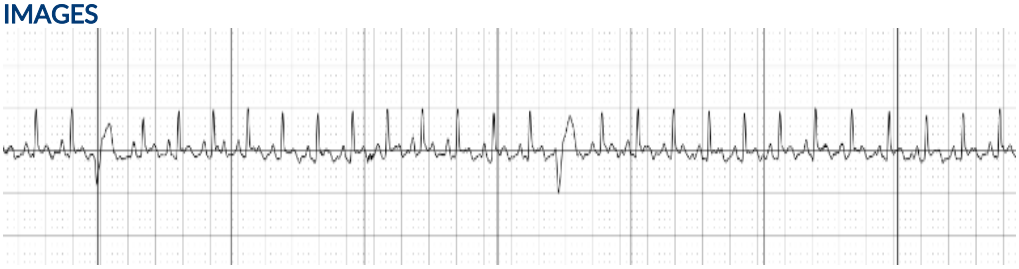
RECOMMENDATIONS

- Institute diuretic furosemide/Lasix 1-2mg/kg PO q12 hours.
- Continue Plavix (Clopidogrel) 18.75mg PO q24 hours lifelong (bitter on cut edge).
- Continue Pimobendan 0.3mg/kg PO q12h.
- Recheck blood work/BP in 1-2 weeks. If doing well, consider an ACE-I 0.5mg/kg PO q12h.
- If recurrent episodes, reassess as discussed.
- Elective anesthesia is not advised.
- Monitor for any clinical evidence of cardiac compromise, including respiratory changes and/or signs of a blood clot event (paralysis, neurologic changes, etc.).

PLAN

- Recheck echocardiogram in 6 months, sooner if clinical issues arise.

IMAGES



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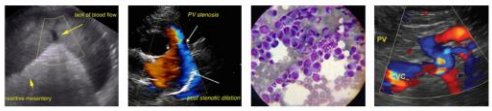

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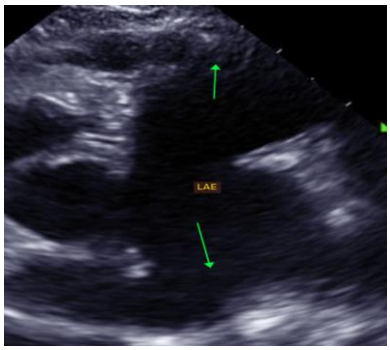

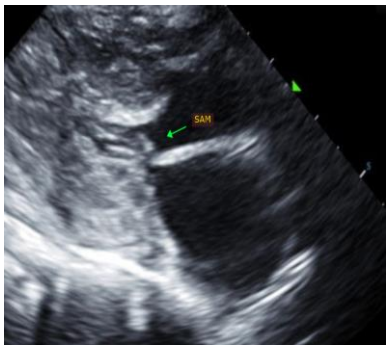

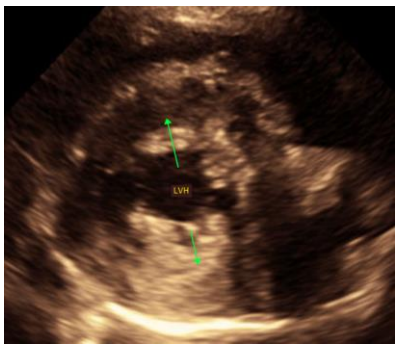

The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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

Echocardiogram performed by: Pamela Harrigan, RDCS
Pet Animal Ultrasound Service (4paus.com)