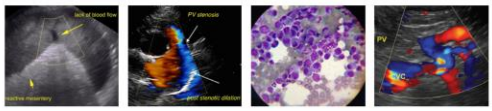
PAUS
Pet Animal Ultrasound Service
4paus.com 781-635-5677



SonoPath
Clinical Sonography & Telecytology
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PATIENT
Zeus Abbate

SPECIES
Feline

BREED
DSH

SEX
Male Neutered

AGE
13 years

WEIGHT
11.6lbs

INTERPRETED BY
Maggie Machen Lamy, DVM DACVIM (Cardiology)

IMAGING PERFORMED BY
Pamela Harrigan, RDCS

HOSPITAL NAME
Norfolk County Veterinary Service

REFERRING VET
Dr. Ragon

INVOICE
21758

DATE
10/28/21

PRESENTING CLINICAL SIGNS

History: Collapse episode 10/27. Patient's legs twitched, then collapse; unresponsive for ~ 20 seconds. Flaccid and unable to be aroused. Woke up and was walking around within minutes. Normal behavior since then. PE unremarkable. No murmurs or arrhythmias noted. On prednisolone and amlodipine (for systemic hypertension). BP: 189, 191, 207mmHg (last night). *Sedated with butorphanol.

ECHOCARDIOGRAM FINDINGS

2D, m-mode, color flow and Doppler imaging is available.
Left ventricle: The LV diameter is mildly increased with adequate myocardial function. The LV wall dimensions are normal yet highly irregular. There is mild fibrosis of the endocardium. The endocardium appears mildly remodeled. The papillary muscles appear hyperechoic and normal in dimension.
Left atrium: The left atrium is mildly enlarged. No obvious smoke or thrombi seen.
Mitral valve: The mitral valve is normal in structure and mobility. No obvious systolic anterior motion is seen. No MR.
Aortic valve/aorta: The aortic valve is normal in morphology and mobility. Normal aortic outflow velocity; laminar flow. No aortic insufficiency. The ascending segment appears mildly dilated.
Right ventricle: Normal right ventricular diameter and morphology indicating no overt evidence of pulmonary arterial hypertension.
Right atrium: The right atrium is mildly enlarged.
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; laminar flow.
Pericardium/other: No pericardial or pleural effusion noted. No obvious cardiac masses.
Heart rhythm: ECG reveals a sinus rhythm with an average HR of 188bpm.

2-Dimensional Measurements

Ao diam (cm)	1.1
LA diam (cm)	1.5
LA:Ao (Swe)	1.44
IVS thickness (cm)	0.4
LVID diastole (cm)	1.8
PW thickness (cm)	0.44
LVID systole (cm)	0.9
FS (%)	52

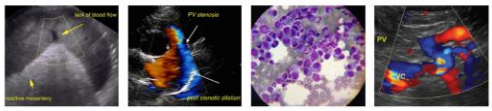
Doppler Measurements

PV Vmax (m/s)	0.9
AoV Vmax (m/s)	1.0
MR Vmax (m/s)	NA
TR Vmax (m/s)	2.6
TR PG (mmHg)	16

INTERPRETATION OF THE FINDINGS

The primary abnormality identified is mild biatrial enlargement. The LV walls appears normal without evidence of hypertrophy at this time. The chamber is mildly increased with significant remodeling as well. These findings likely suggest early unclassified cardiomyopathy (UCM). Given only mild atrial dilation, the risk for complication at this time is low. Monitoring for progression is certainly advised. Presumably a separate issue, the ascending aorta is mildly dilated which likely supports documented systemic hypertension. No additional issues are identified.

These findings would suggest the episode is unlikely to be cardiac in origin. Systemic hypertension can certainly lead to vascular events which may have been related.



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Recommend more aggressive vasodilation in attempt to improve blood pressure control. The target BP in hospital should be consistently <160mmHg.

Prognosis is guarded until progression is assessed. No obvious indication for medications at this time. Patient may be at risk for progression to CHF, development of blood clots and/or malignant arrythmias in the future.

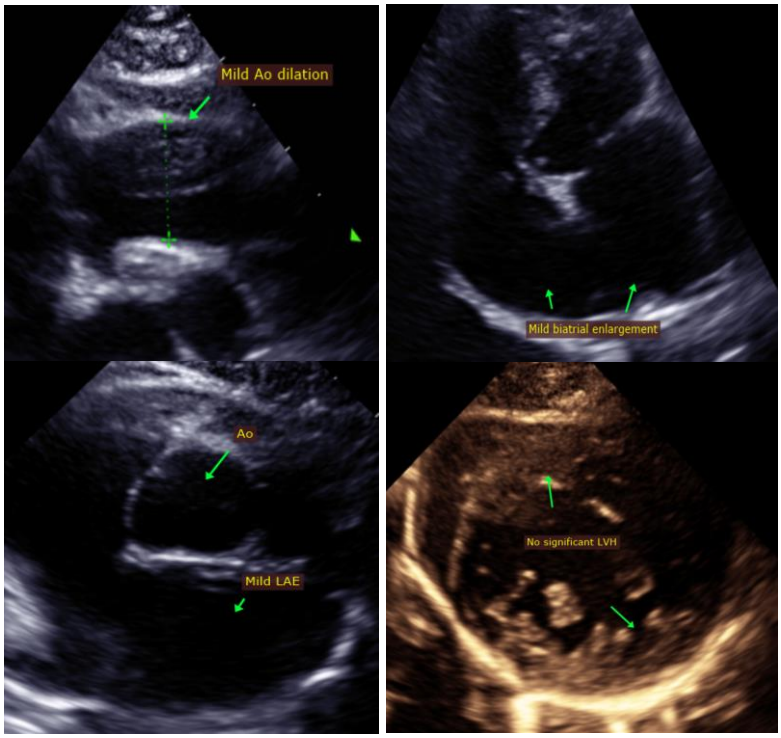
RECOMMENDATIONS

- Given these findings, no cardiac medications are indicated.
- More vasodilation may be indicated to control blood pressure adequately. Consultation with an IM specialist may be useful if difficult to manage.
- 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.
- Monitor at home for signs of cardiac compromise, including respiratory changes and/or signs of a blood clot event (paralysis, neurologic changes).

PLAN

- Recommend recheck echocardiogram in 6months to screen for progression.

IMAGES



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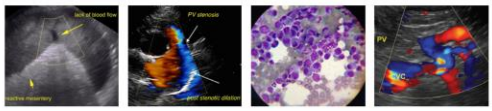

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The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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