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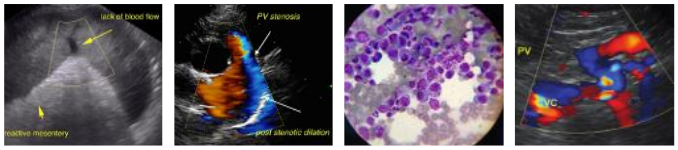


PATIENT
Shiva Rabin

SPECIES
Feline

BREED
Siamese

SEX
Female Spayed

AGE
22 years

WEIGHT
4.7lbs

INTERPRETED BY
Maggie Machen Lamy, DVM, DACVIM (Cardiology)

IMAGING PERFORMED BY
Megan Spatz

HOSPITAL NAME
Boren Veterinary Medical Teaching Hospital - OKU

REFERRING VET
Dr. Fadel

INVOICE
29822

DATE
3/24/23

PRESENTING CLINICAL SIGNS

History: Presented for the inability to use her hind limbs and dribbling urine. 3/22/23 morning, she was getting around fine, however by the evening they noticed she was on the bed and unable to jump off like she usually does. She has still been eating and drinking normally, they just have to bring her to the food and water bowls. They have also noticed that she is dribbling urine when they pick her up or move her. PE hypertension-systolic ~220mmHg, HR 200-200, gallop heart sound. Cold extremities all limbs, no signs of pain on palpation of the limbs.

ECHOCARDIOGRAM FINDINGS

2D, m-mode, color flow and doppler imaging is available. The left ventricular wall is moderate to severely hypertrophied with a decreased chamber size. There is a diffusely hyperechoic endocardium consistent with fibrosis. The papillary muscles are hypertrophied as well. The LV systolic function is adequate. The left atrium is moderately dilated and bulbous in appearance with a horizontal component. No obvious spontaneous contrast seen, no obvious thrombi. The right atrium is normal. The mitral valve appears mildly thickened. Trivial MR. The TV appears normal with no TR. Blood flow through the RVOT and LVOT are normal in velocity. Ascending aortic segment appears dilated. Scant pericardial effusion suspected, although the finding is inconsistent. No obvious pleural effusion. No obvious cardiac tumors.

CARDIAC CHART

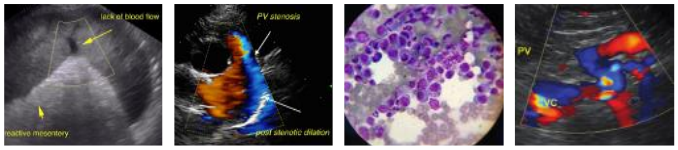
FELINE CARDIAC PARAMETERS	BODY WEIGHT (kg)	HR (BPM)	IVSd (cm) (Moise, Pipers)	LVIDd (cm) (Moise, Pipers)	LVWd (cm) (Moise, Pipers)	FS (%)	EF (%)
NORMAL PARAMETER	------	150-240	0.35-0.55	<2 (mean 1.5)	3.5-0.55	35-67	80-100
PATIENT	2.1	NM	0.73	1.1	0.76	59	92
FELINE CARDIAC PARAMETERS	**LA/AO** (Boon)	**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	1.9	1.7		0.7	1.3	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

The finding of significant left atrial enlargement in the face of moderate to severe LV hypertrophy is consistent with Hypertrophic Cardiomyopathy phenotype; however, systemic hypertension and hyperthyroidism should be ruled out. In a senior cat with severe systemic hypertension, these findings may be secondary. The ascending aorta is also dilated, which would support true pathologic hypertension. There is moderate left atrial enlargement, suggesting risk for complication going forward. Finally, scant pericardial effusion is suspected in some views, which may reflect early congestion. No additional issues are identified.

The PE/history and finding of left atrial enlargement raises suspicion for a cardiogenetic thrombus as the cause of clinical signs. That being said, severe SHT is also present and a vascular



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event is also possible and both should be treated. Senior cats who develop an ATE/paralysis unfortunately carry a poor to grave prognosis, with those who survive the initial clot event often succumbing within weeks to months to a recurrent thrombus or CHF. Should the pain be poorly controlled or significant azotemia occur, an ascending clot would be suspected, and humane euthanasia is recommended.

Time and supportive care to ensure patient comfort is the best way to approach an ATE should the owners elect to go forward. Heparin can be utilized in hospital to help decrease the risk for clot ascension and further clot development; however, there is no safe or recommended therapy to disrupt the current thrombus. Other possible complications include reperfusion injury, limb necrosis, CHF/arrhythmias. Assuming the pain can be controlled, some cats are able to regain some or all function in the limbs over time while others may not. Lifelong cardiac support and anti-coagulation is recommended as below. Without respiratory signs, Lasix is not clearly warranted; however, close monitoring is advised. There is high risk for spontaneous CFH and/or fluid overload in this patient. Close monitoring for changes in breathing at home is recommended.

PLAN

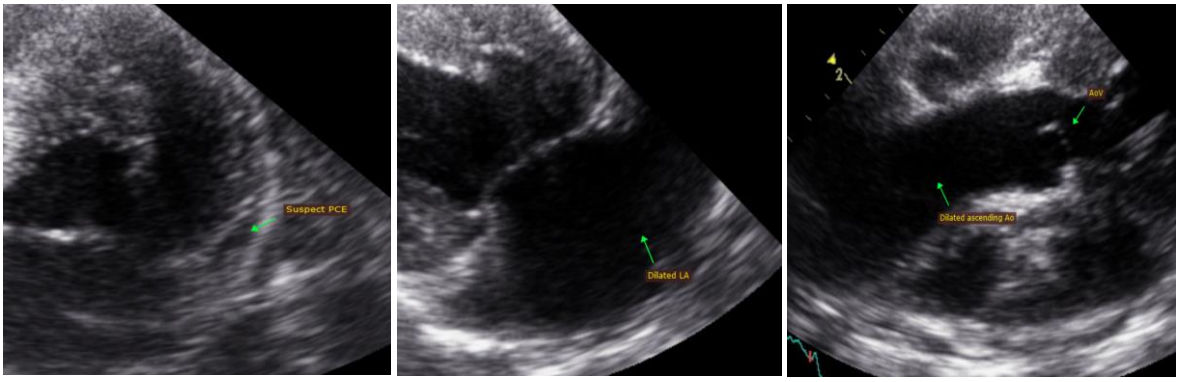
Baseline renal values strongly recommended. Institute immediate vasodilator therapy as dictated by internal medicine/ECC. Supportive care through limb manipulation/temperature support, monitoring electrolytes/renal values q6hours, monitoring BP in both fore and hindlimbs, heparin therapy can be considered if able/elected, pain control (methadone, buprenex, etc.). If QOL suffers, **euthanasia should be considered.**

Oral medications: Initiate Plavix 18.75mg PO SID (NOTE: this medication is very bitter and may cause foaming at the mouth- coat in entirety). Initiate Pimobendan 1.25mg PO q12h. Pending BP >130mmHg, institute ACE-I 0.5mg/kg PO q12h. If any change in breathing develops, institute Lasix 1- 2mg/kg PO q12h.

Recheck renal values in 10-14 days, then every 3-4 months lifelong. Close monitoring of respiratory rate and effort at home.

Recheck echocardiogram in 6 months once stable on oral medications to reassess for progression.

IMAGES



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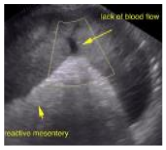
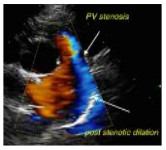
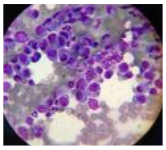
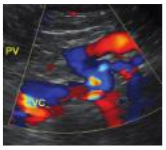

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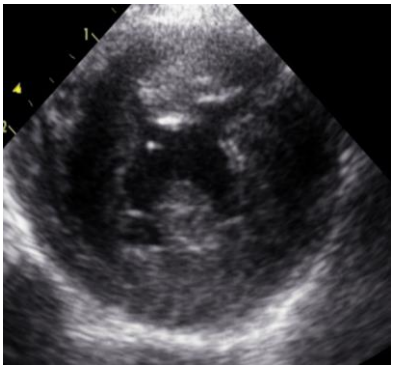
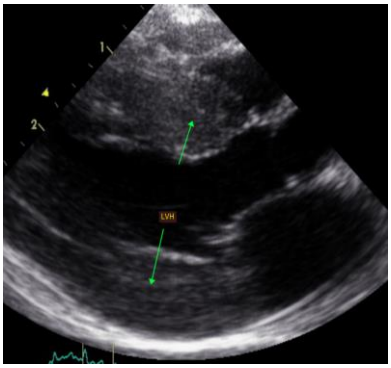

The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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