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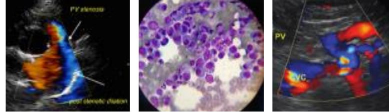

SonoPath

Clinical Sonography & Telecytology

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PATIENT
Isla Simon

SPECIES
Feline

BREED
DSH

SEX
Female Spayed

AGE
4.20.11

WEIGHT
6.5lbs

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

HOSPITAL NAME
Hickory Veterinary Hospital

REFERRING VET
Dr. Lyle

INVOICE
24314

DATE
5.20.22

PRESENTING CLINICAL SIGNS

History: History of 1/6 heart murmur for about a year. Presented 5/17 for collapsing/stumbling type episode. Heart murmur not heard on exam, overall unremarkable. BP normal.
-Pertinent abnormal PE/Chem/CBC/UA Results: CBC unremarkable. Chem WNL. T4 1.9. UA- USG 1.045, Prot 1+, pH 6.5, ProBNP 1500.
-Current medications: None, compounding Clopidogrel.
-Sedation used: Not required to complete full diagnostic ultrasound.
-Pertinent previous ultrasound results: No previous.
-STAT: Not requested.
-Imaging performed by: Stephanie Pearce RDCS, RVT.

ECHOCARDIOGRAM FINDINGS

2D, m-mode, color flow and doppler imaging is available. The left ventricular wall is irregular with a normal septal dimension and free wall thinning. There is a mildly hyperechoic endocardium consistent with fibrosis. The LV chamber is normal in dimension; however, mild LV dysfunction is noted. The papillary muscles are mildly remodeled. The left atrium is mild to moderately dilated and bulbous in appearance. The right atrium is mildly dilated. The right ventricle appears prominent. The MPA appears normal. The mitral valve is normal with mild central MR. Blood flow through both the LVOT and RVOT is normal in velocity. No TR. Scant pericardial effusion seen. No 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	3.5-0.55	<2 (mean 1.5)	3.5-0.55	35-67	80-100
PATIENT	2.9	NM	0.49	1.5	0.35	37	70
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	1.6	1.5		0.71	0.9	NM

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 any degree of biatrial enlargement in the face of minimal LV wall hypertrophy is most consistent with Unclassified Cardiomyopathy (UCM); however, some prior infectious or inflammatory insult to the myocardium cannot be definitively ruled out. There is also LV dysfunction with remodeling and fibrosis which indicates diastolic dysfunction as well. Serial echocardiography will be necessary to confirm the diagnosis and assess for progression.

Regardless of categorical classification, the finding of biatrial dilation is concerning for progression in the future. Scant pericardial effusion is notable as well, and two broad possibilities for its origin could be argued. First with mild biatrial dilation this may be due to congestive heart failure, albeit most CHF occurs with severe LA dilation and associated clinical signs of tachypnea/dyspnea (this patient had 1 acute episode which is difficult to explain). An alternative explanation would be that this patient has subclinical disease and an unrelated non-cardiac origin of the effusion/episodes, and full systemic evaluation is advised. At this time, I would consider this more likely although difficult to confirm. All possibilities should be ruled out, including a neoplastic origin or systemic origin. A Lasix trial can be initiated should no other systemic issues be identified that may make CHF more or less likely. Regardless of symptoms, recommend Pimobendan in this case due to the totality of the findings as below.

Pending progression/recurrence of episodes, patient will always remain risk for CHF and/or development of blood clots in the future. Monitoring of sleeping respiratory rates (SRRs) at home is recommended as the best way to screen for recurrent CHF at home. High risk for fluid overload if utilized in the future, and cautious up-titration with SRR monitoring is advised.

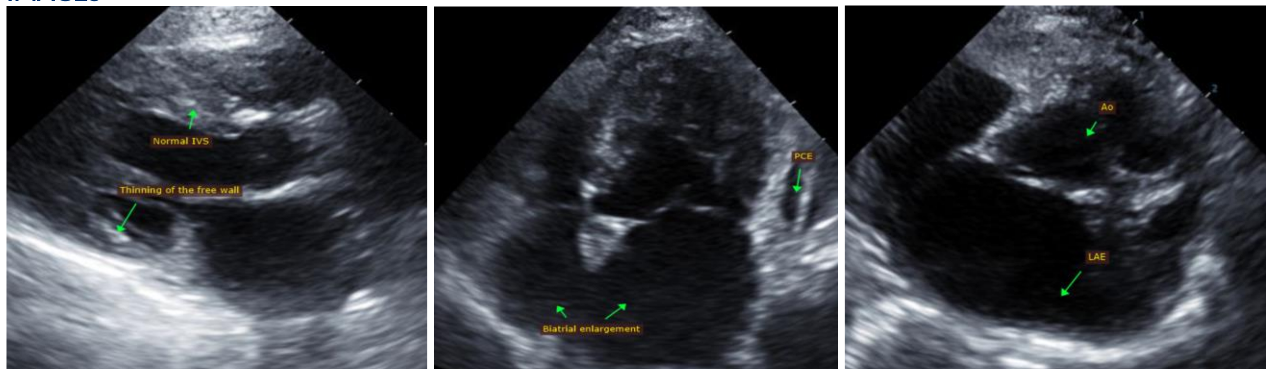
Steroids should be ideally avoided in this case pending further evaluation. If a neoplastic process is contributing, then these may actually be indicated. The first step would be assessing response to diuretic therapy.

PLAN

Independent of symptoms, consider Pimobendan for potential long term benefit; 1.25mg PO q12h. Consider a Lasix trial as discussed if no systemic issues are identified (1-2mg/kg PO q12h for 1-2 weeks and reassess effusion). If resolves, continue long term with addition of Plavix. If no change, discontinue. Full systemic evaluation should be considered.

A recheck echocardiogram is recommended in 6 months to assess progression, sooner if any associated clinical signs develop.

IMAGES



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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