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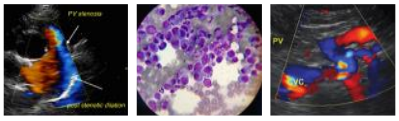

SonoPath
Clinical Sonography & Telecytology
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PATIENT
Puntchkin Sugar

SPECIES
Feline

BREED
DSH

SEX
Female Spayed

AGE
4.5.07

WEIGHT
11.4lbs

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

HOSPITAL NAME
Cat Hospital at Towson

REFERRING VET
Dr. Brunt

INVOICE
24793

DATE
6.15.22

PRESENTING CLINICAL SIGNS

History: Grade 2 heart murmur. Elevated ProBNP.
-Current medications: Transdermal Mirtazapine.
-Sedation used: Alfaxan IV.
-Pertinent previous ultrasound results: No previous.
-STAT: Not requested.
-Imaging performed by: Stephanie Pearce RDCS, RVT.

ELECTROCARDIOGRAPHIC FINDINGS

A six lead ECG is available at both 25 and 50mm/s; 2mm/mV. The average heart rate is 175bpm with a 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 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. The left ventricular wall thickness is asymmetric with mild septal thickening and a normal posterior wall. There is a diffusely hyperechoic endocardium consistent with fibrosis. Mild symmetric papillary muscle hypertrophy and remodeling. The right ventricle is subjectively normal in size and morphology. There is mild left atrial enlargement present. No right atrial enlargement present. Normal RVOT velocity. Trace TR. Normal LVOT velocity. There is no obvious systolic anterior motion (SAM) of the mitral valve present. No MR. There is no pericardial effusion noted. No pleural effusion appreciated. 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	5.2	NM	0.68	1.5	0.54	45	80
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	1.5	1.5		1.1	0.6	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

Hypertrophic cardiomyopathy (HCM) is a rule out diagnosis once a patient is deemed normotensive and euthyroid. In a presumably well controlled hyperthyroid cat, hypertension should be considered. Regardless, the degree of disease is mild, with only mild septal thickening and mild LA dilation. This would indicate the risk for clinical issues is low at this time. No additional issues are identified.

No medications are indicated prior to significant atrial dilation. It is important to note that no medications have been shown to definitively alter long term outcome at this stage, particularly in the absence of SAM.

The ECG is largely normal with a single VPC identified. VPCS are likely secondary to stress and structural changes, as identified here. A single abnormal beat is of little concern; however, follow up is advised. Particularly should any syncope or acute lethargy be noted in the future.

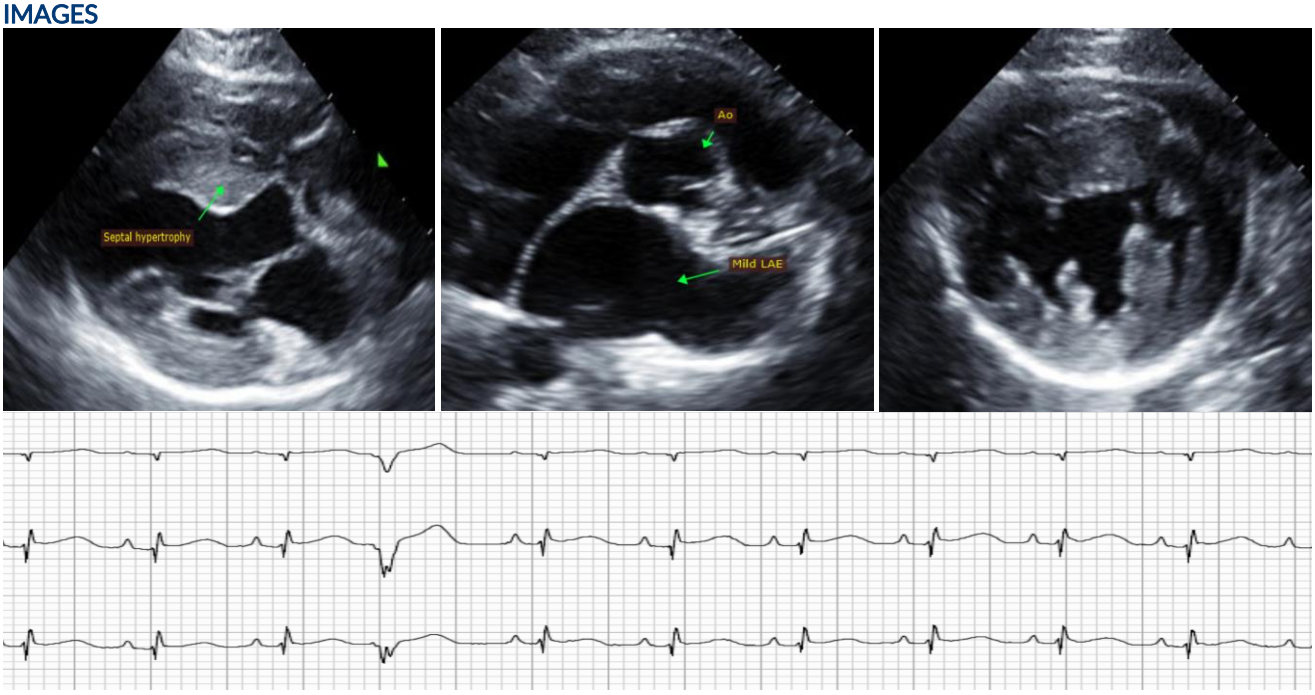
Monitor at home for any respiratory issues or signs of blood clot events (neurologic change, paralysis, etc.). Anesthetic risk is considered mild, however judicious fluid administration is advised if needed with careful RR/RE monitoring to screen for fluid overload. Additionally, drugs that stimulate heart rate should be avoided unless clinically necessary (glycopyrrolate, atropine). Risk for complication with steroid use typically follows LA dilation, which in this case is mildly elevated. If needed, monitoring of RR/RE is advised particularly in the initiation phase.

PLAN

A screening blood pressure and T4 are recommended, then every 6 months lifelong.

A recheck echocardiogram and ECG are recommended in 6 months to assess for progression, sooner if any issues arise in the interim.

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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