



PATIENT

Zoey Dunkman

SPECIES

Feline

BREED

DLH

SEX

Female Spayed

AGE

18 years

WEIGHT

7.56lbs

INTERPRETED BY

Maggie Machen
 Lamy, DVM, DACVIM
 (Cardiology)

IMAGING PERFORMED BY

Jenna Walsh, CVT

HOSPITAL NAME

West Hills Animal
 Hospital

REFERRING VET

Dr. Remcho

INVOICE

32494

DATE

8/22/23

PRESENTING CLINICAL SIGNS

History: History of a PPDH. Grade 2/6 heart murmur. Assess prior to dental.
 -Abnormal PE/Chem/CBC/UA Results: BUN 61, SDMA 20, Creat 2.2, T4 2.9 (grey zone), ProBNP 1175, USG 1.104.

ELECTROCARDIOGRAPHIC FINDINGS

A six lead ECG is available at 25mm/s; 5mm/mV. The average heart rate is 188bpm 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 shifted left. No ectopic beats, pauses or dysrhythmias observed.
 ECG diagnosis: Normal sinus rhythm with an LAFB.

ECHOCARDIOGRAM FINDINGS

2D, m-mode, color flow and doppler imaging is available. The left ventricular wall is normal in dimension. There is a diffusely hyperechoic endocardium consistent with fibrosis. The papillary muscles are mildly remodeled and hyperechoic. The endocardium also appears remodeled. The left atrium is normal in size. The right atrium is normal in size. The right ventricle appears normal. The mitral valve is normal in structure and mobility. Mild MR. Blood flow through both the LVOT and RVOT is normal in velocity. A mid LV obstruction is suspected on doppler imaging. No pleural or pericardial effusion seen. No obvious cardiac tumors. A PPDH is suspected with liver visualized in the pericardial space.

CARDIAC CHART

FELINE CARDIAC PARAMETERS	BODY WEIGHT (kg)	HR (BPM)	IVSd (cm) (Moise, Pipers)	LVIDd (cm) (Moise, Pipers)	LWVd (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	3.4	170	0.42	1.3	0.46	57	90
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	1.3	1.1		0.9	1.0	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

Overtly normal cardiac structure and function with a pericardial peritoneal diaphragmatic hernia (PPDH). The LV wall thickness is normal and there is no evidence of elevated left atrial pressure. There is remodeling and fibrosis of the left ventricular wall, which is likely a normal variant. Serial echocardiography will be necessary to determine progression. The suspected origin of the murmur is a mild mid-LV obstruction, which is typically benign/physiologic in origin (i.e., secondary to tachycardia, volume changes, etc.). This is likely secondary to reported azotemia.



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Given these findings, no medications are indicated. Baseline blood pressure is strongly recommended. The ECG is unremarkable with a left anterior fascicular block (LAFB). This is a benign conduction abnormality common in older cats.

SPECIES

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The PPDH is of little clinical concern in a geriatric cat. In the absence of trauma this is most commonly a genital issue. In the absence of trauma, this is most commonly a congenital issue. Often congenital hernias are incidental findings in cats, with the majority causing little clinical issue. A thoracic CT scan could be considered, particularly if any clinical issues arise such as respiratory distress or cough.

BREED

DLH

From a cardiac standpoint there is no contraindication for general anesthesia. Risk for complication with steroid use typically follows LA dilation, which in this case is low. That being said, any cat can experience unexpected signs of intolerance and monitoring of RR/RE is advised particularly in the initiation phase.

SEX

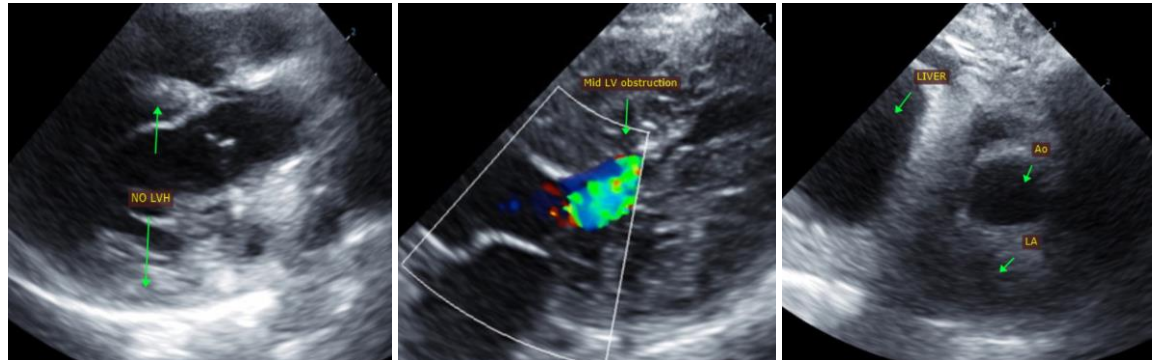
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Recommend recheck echocardiogram in 1 year to reassess murmur origin, and screen for development of disease the pre-existing murmur may mask.

IMAGES



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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.

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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.

DATE

8/22/23

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