



**PATIENT**

Trifecta Eubank-Warble

**SPECIES**

Feline

**BREED**

DSH

**SEX**

Female Spayed

**AGE**

1.107

**WEIGHT**

6.25lbs

**INTERPRETED BY**

Maggie Machen Lamy, DVM, DACVIM (Cardiology)

**HOSPITAL NAME**

Cat Sense Feline Hospital

**REFERRING VET**

Dr. Sinclair

**INVOICE**

24316

**DATE**

5.20.22

**PRESENTING CLINICAL SIGNS**

History: Presented for ravenous appetite and losing weight, along with soft stools that are very light-colored. She has a grade 3/6 murmur. Diagnosed as hyperthyroid but suspect concurrent intestinal disease so had abdominal ultrasound prior to considering I-131 in case there was intestinal cancer found. No cancer was found but there might be some liver congestion and a quick scan of the heart showed possible mild volume overload. Would like to know cardiac status prior to pursuing I-131.

-Pertinent abnormal PE/Chem/CBC/UA Results: T4: 10.6.

-Current medications: None currently.

-Sedation used: Torbugesic IV.

-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 largely normal in dimension, although irregularity is noted. There is a diffusely hyperechoic endocardium consistent with fibrosis and ventricular remodeling. Mild papillary muscle hypertrophy. The right ventricle is subjectively normal in size and morphology. There is mild left atrial enlargement present. No right atrial enlargement present. The RVOT velocity is normal on Spectral doppler; however, color flow suggest an RVOTO. There is no obvious systolic anterior motion (SAM) with a normal LVOT velocity. There is no mitral regurgitation present secondary to LVOTO. No TR. There is no pericardial or pleural effusion appreciated. No tumors seen.

**CARDIAC CHART**

FELINE CARDIAC PARAMETERS	BODY WEIGHT (kg)	HR (BPM)	IVSd (cm) (Moise, Pipers)	LVIDd (cm) (Moise, Pipers)	LWWd (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	2.8	NM	0.43	1.5	0.52	47	82
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		1.5	1.6	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

The only abnormality identified is mild left atrial enlargement. This may reflect early unclassified disease; however, tachycardia as is seen with hyperthyroidism can also cause this abnormality. A screening blood pressure is recommended. Regardless, the LA is only mildly enlarged which would indicate clinical stability. Serial echocardiography will be necessary to determine progression. A dynamic RVOTO is suspected to be the cause of the murmur, which is benign and common in hyperthyroid cats. No additional issues are identified.

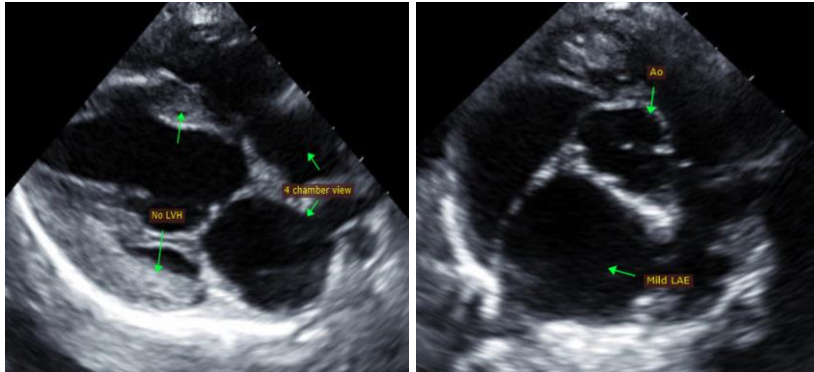
Given these findings, no medications are indicated. There is no obvious contraindication for I-131 therapy as what is seen here is presumably secondary to hyperthyroidism. That being said, the ideal approach to these cases is control with oral medications for 6 months with reassessment of the heart muscle prior to proceeding. With the mild changes seen here, either option seems reasonable and discussion with the owner is advised.

With mild LA dilation, there is low risk for anesthetic complication at this time. However, any cat with this degree of fibrosis and diastolic dysfunction will be at risk for iatrogenic IV fluid overload and judicious rates are recommended. Avoid heart rate stimulating drugs unless indicated. A reasonable protocol includes opioid/benzodiazepine premedication, propofol induction, isoflurane maintenance.

Monitor for any development of clinical signs, including labored breathing or signs of a blood clot (paralysis, neurologic change).

A recheck echocardiogram is recommended in 6-12 months to screen for any evidence of progression.

## 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.

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