



**DATE PRESENTING CLINICAL SIGNS**

3.5.26 History: Presented for PU/PD. Hyperthyroidism. Elevated ProBNP.  
-Current medications: Felimazole 2.5mg PO BID, Gabapentin 50mg - 1/2 tab PO BID PRN.

**PATIENT**

Annamarie Thompson

-Sedation used: Not required to complete full diagnostic ultrasound.  
-Pertinent previous ultrasound results: No previous.  
-STAT: Not requested.  
-Imaging performed by: Andi Parkinson, BS, RDMS.

**SPECIES**

Feline

**BREED**

DSH

**SEX**

FS

**AGE**

10.13.09

**WEIGHT**

5.9lbs

**INTERPRETED BY**

Maggie Machen Lamy,  
DVM, DACVIM  
(Cardiology)

**HOSPITAL NAME**

Timonium AH

**REFERRING VET**

Dr. Dmiszewicki

**INVOICE**

47123

**ECHOCARDIOGRAM FINDINGS**

2D, m-mode, color flow and doppler imaging is available. The left ventricular wall thickness is irregular with mild septal thickening; however, the remainder appears normal. There is a mildly hyperechoic endocardium consistent with fibrosis. The papillary muscles are mildly hyperechoic. The left atrium is normal in size. The right atrium is normal in size. The right ventricle appears normal. The mitral valve is normal with no MR. No TR. Blood flow through the RVOT is normal. The blood flow through the LVOT is normal on doppler; however, color flow and 2D imaging suggests an intermittent LVOTO. Trace AI. No pleural or pericardial effusion seen. 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 (%)
<b>NORMAL PARAMETER</b>	-----	150-240	3.5-0.55	<2 (mean 1.5)	3.5-0.55	35-67	80-100
<b>PATIENT</b>	2.7	250	0.66	1.1	0.52	59	91
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)
<b>NORMAL</b>	<1.5	<1.3	<1.2		<1.6	<1.3	<0.9
<b>PATIENT</b>	NM	1.0	1.0		0.9	1.5	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 septal hypertrophy in addition to LV remodeling, which may be indicative of early hypertrophic disease or may simply represent a normal variant. Mild pathology secondary to reported hyperthyroidism is also possible. Regardless, the LA is normal which would indicate clinical stability. Serial echocardiography will be necessary to determine progression and clinical significance. Additionally, there is a mild LVOT obstruction, which appears intermittent and

does not warrant therapy. A baseline BP is recommended given a small aortic insufficiency. No additional issues are identified.

Prognosis is open as treating the thyroid disease may result in resolution of these changes. Follow up is certainly recommended.

Anesthetic risk is considered mild, however judicious IV fluid rates are advised to avoid fluid overload. Additionally, drugs that stimulate heart rate should be avoided unless clinically necessary (glycopyrrolate, atropine). Avoid vasodilators as this may worsen the obstruction. A reasonable protocol includes opioid/benzodiazepine premedication, propofol induction, isoflurane maintenance. Additionally, steroids should be used with caution on older cats, as even a 'normal' geriatric heart can develop evidence of intolerance and fluid retention.

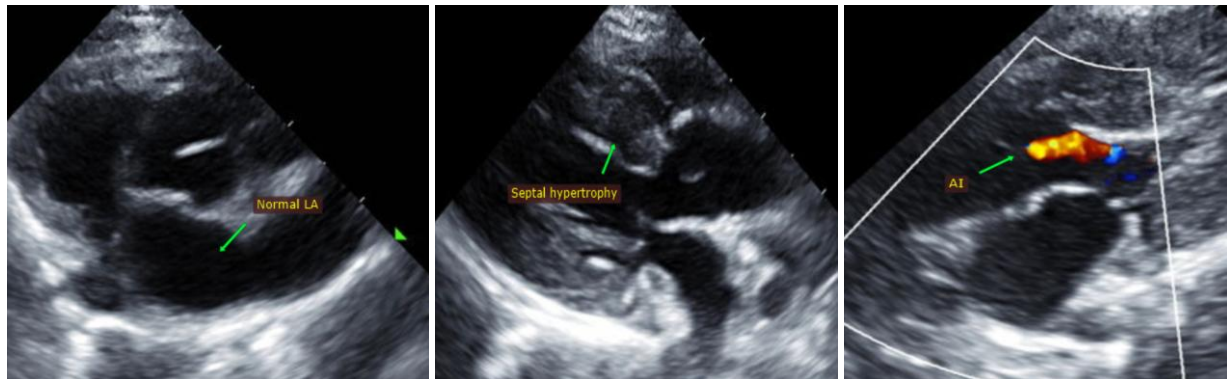
Monitor for any development of clinical signs, including labored breathing or signs of a blood clot (paralysis, neurologic change).

#### **PLAN**

Immediate thyroid control as able. Baseline BP is recommended.

A recheck echocardiogram is recommended in 1 year 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.

**Maggie Machen Lamy, DVM**

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