



**PATIENT**

Sparky Smith

**SPECIES**

Feline

**BREED**

Domestic Short Hair

**SEX**

MN

**AGE**

2011

**WEIGHT**

9.8lbs

**INTERPRETED BY**

Maggie Machen  
Lamy, DVM, DACVIM  
(Cardiology)

**HOSPITAL NAME**

Bel Air Veterinary  
Hospital

**REFERRING VET**

Dr. Schmidt

**INVOICE**

21324

**DATE**

10/1/21

**PRESENTING CLINICAL SIGNS**

History: Grde 2/6 murmur, occasional dropped beats, pre-anesthesia work up.

-Current medications: Hill's z/d diet

-Pertinent previous ultrasound results: No previous.

-STAT: Not requested.

**ELECTROCARDIOGRAPHIC FINDINGS**

A six lead ECG is available at both 25 and 50mm/s; 5mm/mV. The average heart rate is 214bpm 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. No ectopic beats, pauses or dysrhythmias observed.

ECG diagnosis: Normal sinus tachycardia.

**ECHOCARDIOGRAM FINDINGS**

2D, m-mode, color flow and doppler imaging is available. The left ventricular wall is largely normal in dimension with a sigmoid septum. There is a diffusely hyperechoic endocardium consistent with mild fibrosis. The papillary muscles are mildly remodeled. 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. Blood flow through both the LVOT and RVOT is mildly elevated in velocity with a late-peaking dynamic component. Trace TR. 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)	LWVd (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	4.4	240	0.4	1.5	0.42	36	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	1.1	1.2		2.4	2.4	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

Essentially normal cardiac structure and function. 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, however this is likely a normal finding. The murmur is due to an intermittent dynamic LVOT obstruction, likely secondary to a sigmoid septum. This finding does not correlate closely to disease; however, follow up is advised in case hypertrophy ensues. Given these findings, no medications are indicated.

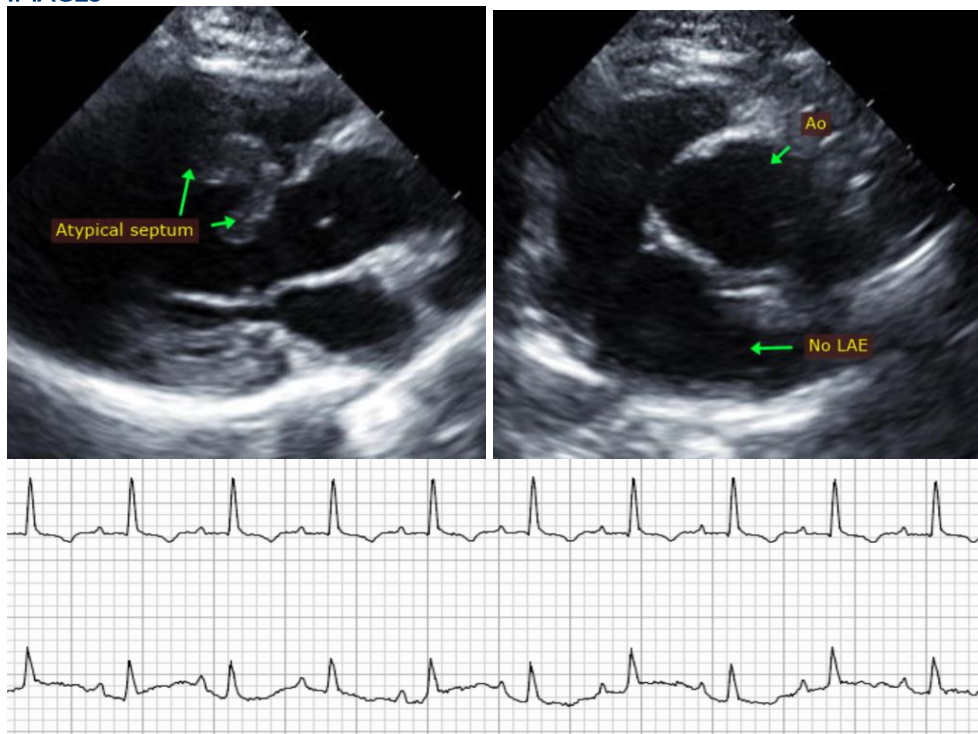
The ECG is unremarkable with a normal sinus tachycardia. If these findings do not reflect what was ausculted on exam (i.e., premature beats), a longer recording or potentially a holter monitor may be necessary. If premature beats are identified, these are unlikely to be due to structural changes seen here and systemic screening is advised.

Prognosis is open prior to assessing for progression. Patient may be at risk for development of clinical signs in the future.

Anesthetic risk is considered mild. Any cat with remodeling and diastolic stiffening carries an elevated risk for fluid overload and judicious IV fluid use is recommended. Heart rate stimulating drugs such as atropine, glycopyrrolate or ketamine should be avoided unless medically necessary.

Recommend recheck echocardiogram in 1 year to screen for progression, sooner if clinical signs arise.

## 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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