



**PATIENT PRESENTING CLINICAL SIGNS**

Lexie George

**SPECIES**

Canine

**BREED**

Chihuahua Mix

**SEX**

Female

**AGE**

12 years

**WEIGHT**

16.36 lbs

**INTERPRETED BY**

Eric Lindquist, DMV  
DABVP, Cert. IVUS

**IMAGING PERFORMED BY**

Holly LVT

**HOSPITAL NAME**

All Pets Medical Center

**REFERRING VET**

Dr. Rupley

**INVOICE**

39514

**DATE**

9/20/22

History: PRESENTED FOR: swelling below right eye and teeth cleaning. REPORTED SYMPTOM: swelling below right eye VITALS: 16.36 pounds Temperature: did not obtain due to patient temperament Heart Rate: 128 bpm after sedation Respiratory Rate: 32 bpm after sedation Mucous Membrane Color: pink Capillary Refill Time: unable to obtain due to patient temperament CURRENT MEDICATIONS: None. EXAM FINDINGS: Muffled heart sounds. Lexie became cyanotic on exam. Oxygen, butorphanol, and midazolam were administered. LA:Ao Ratio abnormal on GLOBAL. Echocardiogram recommended. Distended abdomen / pot bellied appearance Severe dental disease LAB RESULTS: Elevated total solids. CBC results reveal hypersegmented neutrophils 5%. Chemistry panel reveals greatly elevated alk phos, elevated ALT, and elevated glucose. Urinalysis results reveal uro 4, protein 2000, pH 6.0, and Specific Gravity: 1.034. Urine Pro:Cr Ratio: slightly elevated at >=0.5 to <2.0. ASSESSMENT AND PLAN: Teeth cleaning delayed pending echo results. Clindamycin and tramadol were begun. Urine cortisol:creatinine screening test for Cushing's disease is recommended, however the urine sample will need to be collected at home while Lexi is not excited / stressed.

**ULTRASONOGRAPHIC EXAMINATION OF THE HEART**

The **echocardiogram** presented a prominent **right heart** with mild **right ventricular** hypertrophy, without significant **tricuspid** regurgitation, and normal **right atrial** size. No evidence of neoplasia was noted in the right auricle, or elsewhere in the heart. The **pulmonary artery** was uniformly prominent with mildly depressed pulmonic velocity measured on PW Doppler. No overt heartworms were noted in the main or visible deep pulmonary arteries. Yet, theoretically heartworms could be present in the deep pulmonary vasculature out of visible sonographic range. More likely, however, this prominent right heart is due to excessive intra-thoracic pressures caused by chronic respiratory disease or potentially excessive intra-thoracic fat (Pickwickian syndrome). The **left heart** demonstrated a linear **ventricular septum**. Contractility was functionally adequate demonstrated by the FS% measurement. The **mitral valve** revealed trivial insufficiency, yet not clinically significant. No significant **left atrial** dilation was noted. The **left ventricular outflow** demonstrated normal flow patterns and velocities through the aortic valve. No evidence of tumor, pericardial or pleural effusion was noted. The visible **extra-cardiac** tissues were uniformly linear without evidence of masses, infiltrative or inflammatory mediastinal tissue. No evident arrhythmic activity was noted during the exam. Hepatic veins were not dilated.

FELINE CARDIAC PARAMETERS	BODY WEIGHT	HR (BPM)	IVSd (cm)	LVIDd (cm)	LVWd (cm)	FS (%)	EF (%)
NORMAL PARAMETER	-----	150-240	0.3-0.6	1.0-2.1	0.25-0.6	35-67	80-100
PATIENT	16.36 lbs	80		1.8		45	80
FELINE CARDIAC PARAMETERS	LA/AO (Boon)	LA/AO HEART BASE (Sisson)	LA 2D 4-chamber long axis AS to FW (Sisson) (cm)	LVOT VEL. (m/s)	RVOT VEL. (m/s)	IVRT (m/)	
NORMAL PARAMETER	<1.5	0.88-1.79	0.7-1.7		<1.6	<1.3	40-60
PATIENT	1.15	1.5	2.0 max			0.9	NM

Adapted from June Boon, Veterinary Echocardiography, 1998  
Sisson D et al. JVIM 1991; 5: 232, Jacobs et al. Am J Vet Res 1985; 46:1705





**PATIENT**

Lexie George

The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

**SPECIES**

Canine

Thank you for this referral. If the clinical or image interpretation does not parallel your findings or if I can be of any further assistance please contact me.

**BREED**

Chihuahua Mix

**Eric Lindquist**, DMV, DABVP, Cert. IVUSS, CEO of SonoPath.com  
info@SonoPath.com

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