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Clinical Sonography & Telecytology
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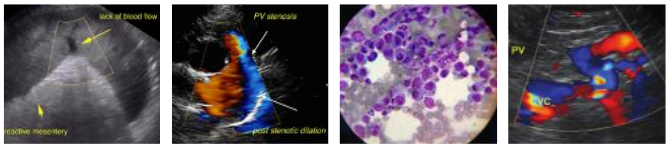

**PATIENT**

Tiger Peng

**SPECIES**

Feline

**BREED**

DSH

**SEX**

Spayed Female

**AGE**

18

**WEIGHT**

11.8

**INTERPRETED BY**

R. McKenzie Daniel, DVM, DABVP (Canine and Feline)

**IMAGING PERFORMED BY**

Dr. Sharkaway

**HOSPITAL NAME**

Kew Gardens AH

**REFERRING VET**

Dr. Sharkaway

**INVOICE**

21951

**DATE**

4/12/23

## PRESENTING CLINICAL SIGNS

History of CKD severe dental calculus Murmur 2-3 out of 6
Abnormal PE/Chem/CBC/UA Results: BW- CKD STAGE 1 , AZOTEMIA TT4- NORMAL UA- WNL

## ULTRASONOGRAPHIC EXAMINATION OF THE HEART

| **FELINE CARDIAC PARAMETERS** | **BODY WEIGHT** (kg) | **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** | -- | NM | 0.59 | 1.2 | 0.55 | 46 | 81 |
| **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** | -- | 1.45 | 1.3 | | -- | 0.7 | NM |
| Adapted from June Boon,Veterinary Echocardiography,1998<br>Sisson D et al. JVIM 1991; 5: 232, Jacobs et al. Am J Vet Res 1985; 46:1705 | | | | | | | |

### *Cardiac Presentation*

The echocardiogram in this patient demonstrated enlarged **left atrial** size based on 2 separate LA measurement methods. The cranial and caudal **mitral** valve leaflets presented normal linear structure and kinetics. The **left ventricle** and free wall revealed adequate contractility and normal LV volume yet some echogenic remodeling of the septum and free wall with borderline prominent septal and free wall thickness. Normal LV functionality was noted. This does not appear to be a functional issue at this point and likely consistent with some level of myocardial fibrosis or age-related myocardial changes. The **left ventricular outflow** tract demonstrated overtly normal structural integrity. The **right atrium** and auricle revealed increased size and normal content. No evidence of masses was noted or chamber overload. **Tricuspid** valvular assessment demonstrated adequate linear morphology and kinetics. The **right ventricle** was of normal size (1/3 diameter of LV), chordae structure, myocardial echogenicity and thickness. **Pulmonic** tract revealed overtly normal valve structure, subjective laminar flow and diameter. Normal measured RVOT velocity was noted. No visible **pericardial** or free pleura fluid was noted or extra cardiac pathology in the visible planes. The cranial **mediastinum and pericardial regions** were free of masses in the visible window.

## ULTRASONOGRAPHIC FINDINGS

- LV myocardial remodeling with borderline prominent septal and free wall thickness
- Normal left atrium

## INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

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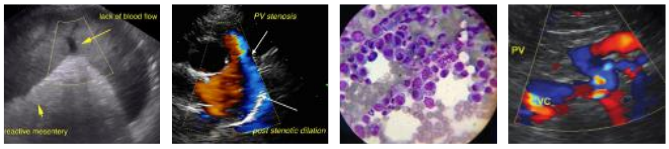

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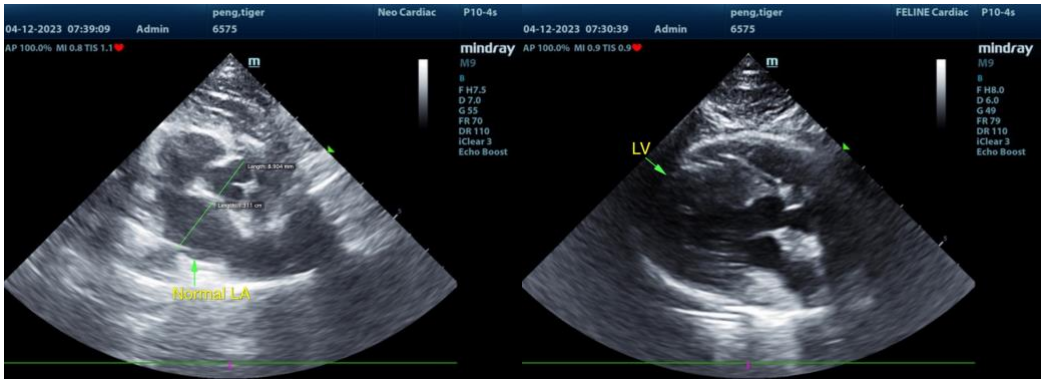
The overall cardiac presentation may indicate typical age-related myocardial changes with potential for emerging HCM criteria, which would be a potential rule out diagnosis, assuming the patient is euthyroid and normotensive. Regardless of categorical classification, the lack of left or right chamber enlargement and normal LV systolic function indicate that the heart is compensated. No obvious or visualized evidence of pericardial disease. Given the overall normal to adequate cardiac function and presentation, no indication for cardiac medications. The murmur in this case is suspected to be a benign physiologic or flow murmur, although a small flow abnormality cannot be definitively excluded. No overt anesthetic contraindications, assuming normal systemic BP. Serial sonographic monitoring is suggested with initial recheck in 6 months or sooner if clinically indicated.

The following anesthetic protocol is suggested:

Suggested anesthetic protocol may include opioid or Benzodiazepine pre-med, induction with Propofol or Alfaxalone, and appropriate gas anesthesia with avoidance of alpha 2 agonists.

https://www.antechdiagnostics.com/cadet-braf




**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. If the clinical or image interpretation does not parallel your findings or if I can be of any further assistance please contact me.

**R. McKenzie Daniel, DVM, DABVP (Canine / Feline Practice)**
**info@SonoPath.com**