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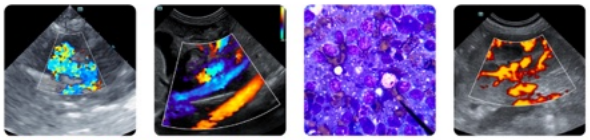


Clinical Sonography & Telecytology
Educational Teleconsultation Services™

SonoPath.com | info@sonopath.com | 1.800.838.4268

**PATIENT**
Skywalker Balcom

**SPECIES**
Canine

**BREED**
Rhodesian Ridgeback

**SEX**
Spayed female

**AGE**
9 years

**WEIGHT**
72 lbs

**INTERPRETED BY**
Eric Lindquist, DMV DABVP, Cert. IVUSS

**IMAGING PERFORMED BY**
Dr. Megan Bray

**HOSPITAL NAME**
Taylorsville VC

**REFERRING VET**
Dr. Bray

**INVOICE**
71801

**DATE**
2/23/26

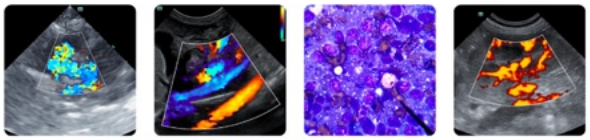
## PRESENTING CLINICAL SIGNS

- Presented for dental but lab work was abnormal
- Upon exam a 2/6 heart murmur was found
- Patient had VPCs during echo
- PLN
- Physical Exam Findings: A NEW LOW-GRADE HEART MURMUR was auscultated, graded as a 2/6, potentially bordering on a 3/6. Laboratory Findings (from 02/19/2026): Renal: Protein loss through the kidneys is PROGRESSING and is HIGHER than in the past. A kidney stress value is SIGNIFICANTLY ELEVATED at 589 (normal high is 99). Hepatic: Liver values are SIGNIFICANTLY ELEVATED. One value is 1,295 (normal high is 160). Endocrine: Thyroid level is at the LOW END OF NORMAL, which could be indicative of developing hypothyroidism or secondary to other systemic disease (euthyroid sick syndrome).

## ULTRASONOGRAPHIC EXAMINATION OF THE HEART

The echocardiogram in this patient demonstrated normal **left atrial** size based on 3 separate methods of LA evaluation. The **mitral** valve was normal. The **left ventricle** presented thicknesses with linear contour and was not dilated nor restricted. The **myocardium** presented normal echogenicity without subjective evidence of significant fibrotic or ischemic disease. **Contractility** of the ventricular walls was adequate and in normal range for this patient evidenced by the fractional shortening measurement and subjective evaluation of the different regions of the myocardium. The **left ventricular outflow** tract demonstrated normal laminar flow and subjective structural integrity. The **right atrium** and auricle revealed normal size, structure and content. No evidence of masses was noted. Minor **tricuspid** insufficiency was noted on spectral Doppler. The **right ventricle** was of normal size (1/3 diameter of LV), chordae structure, myocardial echogenicity and thickness. **Pulmonary outflow** tract assessment revealed normal valve structure, laminar flow, and diameter (approx.1:1 pa/ao ratio). No visible **pericardial** or free pleura fluid was noted. The cranial **mediastinum and pericardial and extra-cardiac regions** were free of masses in the visible window.

| CANINE CARDIAC PARAMETERS | MR VMAX (m/s) | TR VMAX (m/s) | LA/AO | LA/AO (Heart Base) | FS (%) | EF (%) | EPSS (cm) |
|---|---|---|---|---|---|---|---|
| NORMAL PARAMETER | 4.5-5.5 | <2.7 | 1.3 | <1.6 | 28-40 | 40-100 | <0.6 |
| PATIENT | - | - | 1.3 | 1.5 | 50 | 80 | 0.1 |
| **CANINE CARDIAC PARAMETERS** | **HR** (BPM) | **AV VMAX** (m/s) | **PV MAX** (m/s) | **BODY WEIGHT** | **LA** 2D short axis Base view (cm) | **LVIDd** Avg; 2D and m-mode short axis (cm) | **LVIDs** Avg; 2D and m-mode short axis (cm) |
| NORMAL PARAMETER | 50-100 | 0.7-1.7 | 0.7-1.6 | BELOW | BELOW | BELOW | BELOW |
| PATIENT | 80 | 2.3 | 1.3 | 72 lbs | 3.5 | 4.0 | |





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# ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

## *Urinary System*

The **urinary bladder**, trigone, and pelvic urethra presented normal thicknesses and normal tone. The pelvic urethra was imaged 3.0 cm beyond the cystourethral junction and appeared normal. The ureters were not visible which is normal. No uroliths or sediment were visualized and anechoic urine was present. No evidence of inflammatory or neoplastic changes was noted. Ureteral papillae were normal.

The **kidneys** revealed largely normal size and structure, corticomedullary definition and ratio (cortex 1/3 of medulla) were essentially maintained with some age-related loss of curvilinear patterns regarding the capsule and C/M junction. The cortices presented largely uniform texture with some increased echogenicity expected for this age patient. Medullary structure differed distinctly from that of the cortex and no evidence of pelvic dilation was present. Slight cortical cyst was noted in the dorsal cranial cortex of the left kidney. The left kidney measured 6.0 cm. The right kidney measured 6.6 cm.

## *Adrenal Glands*

Both **adrenal glands** were visualized and recognized as having normal shape, size, position and echogenicity for this breed. The phrenic vasculature, glandular echogenicity and detail were unremarkable. Capsule, cortex, and medullary definition were normal for this age patient. The left adrenal gland measured 0.5 cm. The right adrenal gland measured 1.24 cm at the cranial pole and 0.97 cm at the caudal pole.

## *Spleen*

The **spleen** was largely smooth with subtle heterogeneous parenchymal changes while maintaining normal echogenic relationship to the liver and kidney. These changes are consistent with normal age-related alteration. Occasional, hyperechoic lipid plaque was noted and is not pathological. The capsule was smooth without noticeable impingement from within the spleen or from pathology in the adjacent abdomen. The splenic vasculature demonstrated normal volume without signs of congestion or significant contraction. No evidence of active acute or chronic inflammatory, neoplastic, or infarctual changes was noted.

## *Liver*

The **liver** images from right and left intercostal as well as subcostal views revealed subjectively normal liver size, contour, and structure. Some age-related parenchymal remodeling was noted but likely not clinically significant at this time. Vascular and biliary tracts were of normal volume and no evidence of congestion was noted. The gallbladder presented some dependent debris with essentially normal contour. The cystic and common bile ducts were normal. No overt evidence of active inflammatory, infiltrative or regenerative pathology was noted but should be paired with current or past LE elevations regarding any clinical significance to this presentation. The hepatic lymph nodes were unremarkable.

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### *Gastrointestinal*

Examination of the **gastrointestinal tract** revealed a stomach and intestine free of stasis, of normal wall thickness, acceptable curvilinear mural detail, and peristaltic activity. Small and large intestine demonstrated normal luminal chyme and stool consistency respectively. No obstructive or overt infiltrative disease was noted. No associated abnormal lymphatic activity was noted.

### *Pancreas*

The **pancreas** revealed minor, heterogenous remodeling.

## ULTRASONOGRAPHIC FINDINGS

Age related renal changes with left renal cyst.

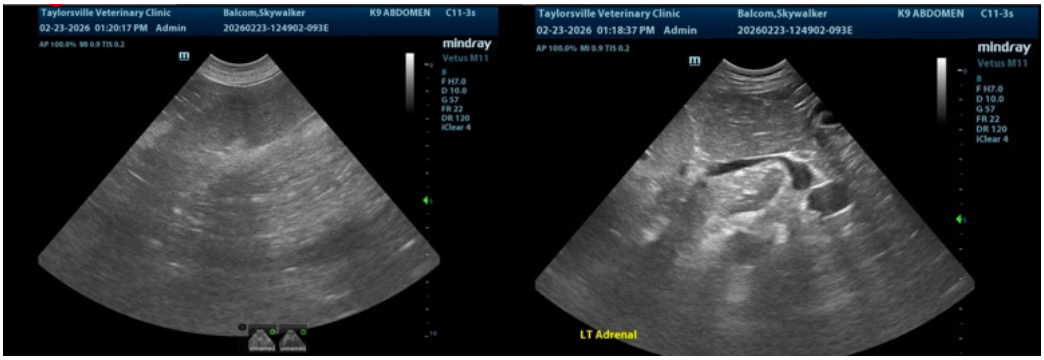
Heterogenous pancreatic remodeling.

Age related hepatic changes.

Mildly increased LVOT.

## INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

If the character of the murmur on auscultation is an ejection murmur then the mildly increased LVOT velocity is the diagnosis. Idiopathic, non-clinical; however, blood pressure measurements are indicated to ensure hypertension is not driving a mildly increased ejection murmur. Given the VPC's noted Holter monitor would be ideal. There was no evidence of clinical cardiac disease unless the patient has periodic paroxysmal arrhythmias. Blood pressure measurements and Holter monitor would be ideal.



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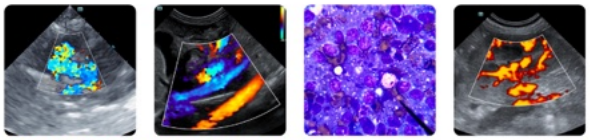

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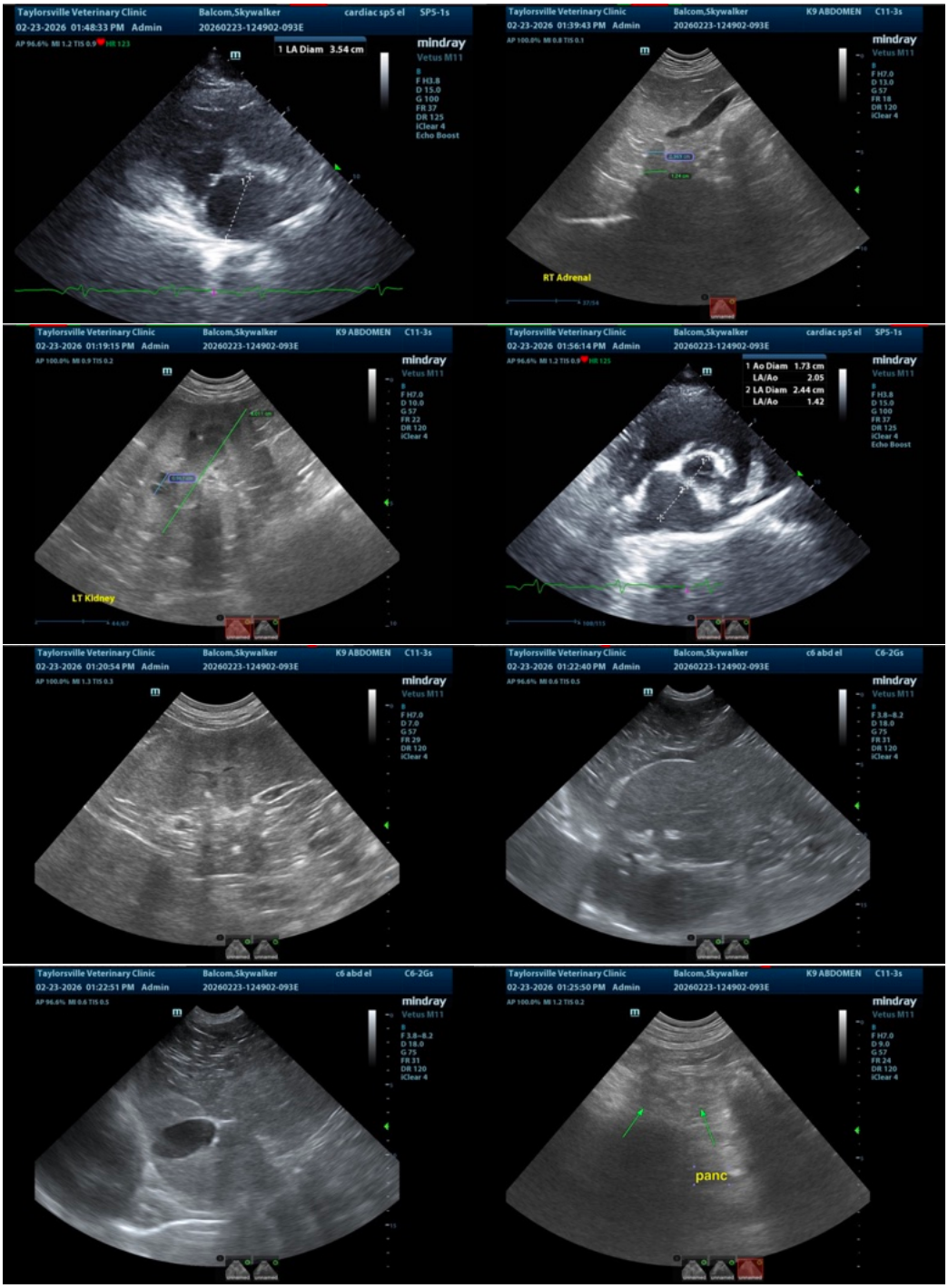

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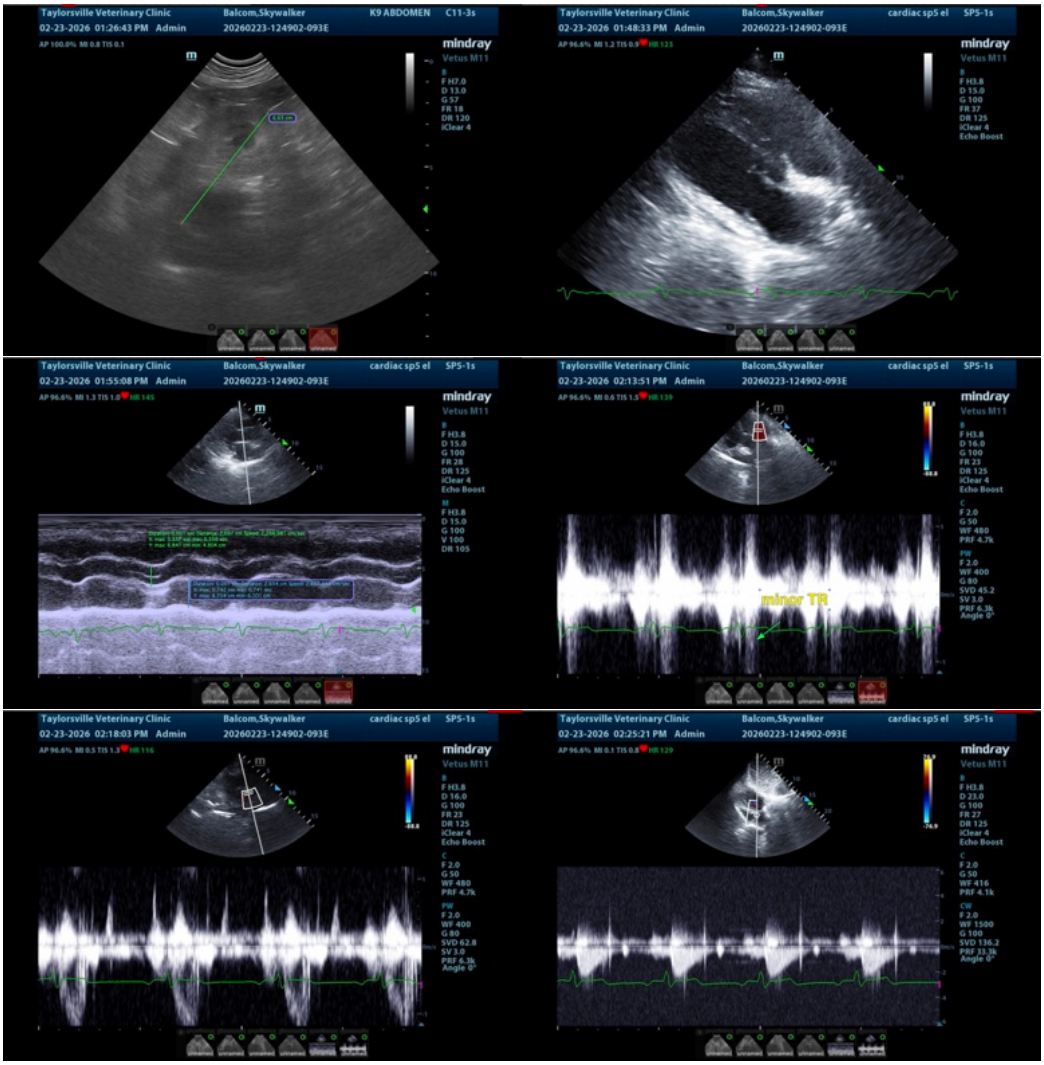


**The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.**

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.

Eric Lindquist, DMV, DABVP (CFM), Cert. IVUSS, CEO of SonoPath.com

info@SonoPath.com