



**PATIENT**

Zuli Milwick

**SPECIES**

Canine

**BREED**

Rhodesian Ridgeback

**SEX**

Spayed Female

**AGE**

4 Years 10 Months

**WEIGHT**

108 lbs

**INTERPRETED BY**

Eric Lindquist, DMV,  
DABVP (CFM), Cert.  
IVUSS

**IMAGING PERFORMED BY**

Kerri Becker

**HOSPITAL NAME**

Marsh Animal Hospital

**REFERRING VET**

Dr. Milwick

**INVOICE**

72764

**DATE**

2/5/26

**PRESENTING CLINICAL SIGNS**

Ongoing hx of urinary incontinence. Meds- desmo 0.2mg bid proin er 145mg DES 1mg every 5 days.

Abnormal PE/Chem/CBC/UA Results: Upc-1.0 usg-1.008

**ULTRASONOGRAPHIC EXAMINATION OF THE HEART & ABDOMEN**

| CANINE CARDIAC PARAMETERS | MR VMAX (m/s) | TR VMAX (m/s) | LA/AO (M-Mode) | LA/AO (Heart Base; Swe) | FS (%)               | EF (%)                                   | EPSS (cm)                                |
|---------------------------|---------------|---------------|----------------|-------------------------|----------------------|--|--|
| NORMAL PARAMETER          | 4.5-5.5       | <2.7          | 1.3            | Up to 1.6               | 28-40                | 40-100                                   | <0.6                                     |
| PATIENT                   | --            | --            | 1.1            | 1.13                    | 29                   | 57                                       | 0.2                                      |
| CANINE CARDIAC PARAMETERS | HR (BPM)      | AV VMAX (m/s) | PV MAX (m/s)   | BODY WEIGHT (lbs)       | LAD LA MAX 4 Chamber | 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        |                         |                      |  |  |
| PATIENT                   | 155           | 1.3           | 1.9            | 108                     | 4.2                  | 3.7                                      | --                                       |

**Cardiac Presentation**

The echocardiogram in this patient demonstrated normal **left atrial** size based on 3 separate methods of LA evaluation. The cranial and caudal **mitral** valve leaflets presented normal linear structure, extension in systole, and union in diastole with normal kinesis. 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. **Tricuspid** valvular assessment demonstrated adequate linear morphology and kinesis. 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.

**Urinary System**

The **urinary bladder**, trigone, and pelvic urethra presented normal thicknesses and normal tone. 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 were noted. Ureteral papillae were normal.



**PATIENT**

Zuli Milwick

**SPECIES**

Canine

**BREED**

Rhodesian Ridgeback

**SEX**

Spayed Female

**AGE**

4 Years 10 Months

**WEIGHT**

108 lbs

**INTERPRETED BY**

Eric Lindquist, DMV,  
 DABVP (CFM), Cert.  
 IVUSS

**IMAGING PERFORMED BY**

Kerri Becker

**HOSPITAL NAME**

Marsh Animal Hospital

**REFERRING VET**

Dr. Milwick

**INVOICE**

72764

**DATE**

2/5/26

The **kidneys** revealed normal size and structure, corticomedullary definition and ratio for this age. The cortices presented largely uniform texture with normal echogenic relationship to liver and spleen. Medullary structure differed distinctly from the cortex and no evidence of pelvic dilation was present. The capsules were acceptably uniform without significant irregularities. Right kidney measured 6.2 cm. Left kidney measured 6.7 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. Right measured 2.66 cm x 0.98 cm at the cranial pole and 0.62 cm at the caudal pole. Left measured 2.5 cm x 0.76 cm at the cranial pole and 0.53 cm at the caudal pole.

**Spleen**

The **spleen** presented a smooth homogeneous parenchyma hyperechoic to liver and renal cortical parenchyma. The capsule was smooth without noticeable expansion or deviation from within the spleen or adjacent pathology. The splenic vasculature demonstrated normal volume without signs of congestion or thrombosis. No sonographic evidence of acute or chronic inflammatory, neoplastic, or infarctual changes were noted.

**Liver**

The **liver** images submitted revealed subjectively normal liver size, contour, and structure. Parenchymal echogenicity was naturally coarse and hypoechoic to the spleen. Vascular and biliary tracts were of normal volume with no evidence of congestion. The gallbladder presented acceptably thin walls with primarily anechoic content. The cystic and common bile ducts were normal. No pathological hepatic lymphadenopathy was evident. No overt structural evidence of inflammatory, infiltrative or regenerative pathology was evident.

**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 base and limbs of the **pancreas** were observed to be largely isoechoic to surrounding omental fat. Pancreatic duct and capsular contour were acceptably normal and parenchyma respected normal curvilinear patterns. No overt evidence of active inflammatory or neoplastic disease was noted.

**ULTRASONOGRAPHIC FINDINGS**

- Normal echocardiogram.
- Normal abdomen.



**PATIENT**

Zuli Milwick

**SPECIES**

Canine

**BREED**

Rhodesian Ridgeback

**SEX**

Spayed Female

**AGE**

4 Years 10 Months

**WEIGHT**

108 lbs

**INTERPRETED BY**

Eric Lindquist, DMV,  
DABVP (CFM), Cert.  
IVUSS

**IMAGING PERFORMED BY**

Kerri Becker

**HOSPITAL NAME**

Marsh Animal Hospital

**REFERRING VET**

Dr. Milwick

**INVOICE**

72764

**DATE**

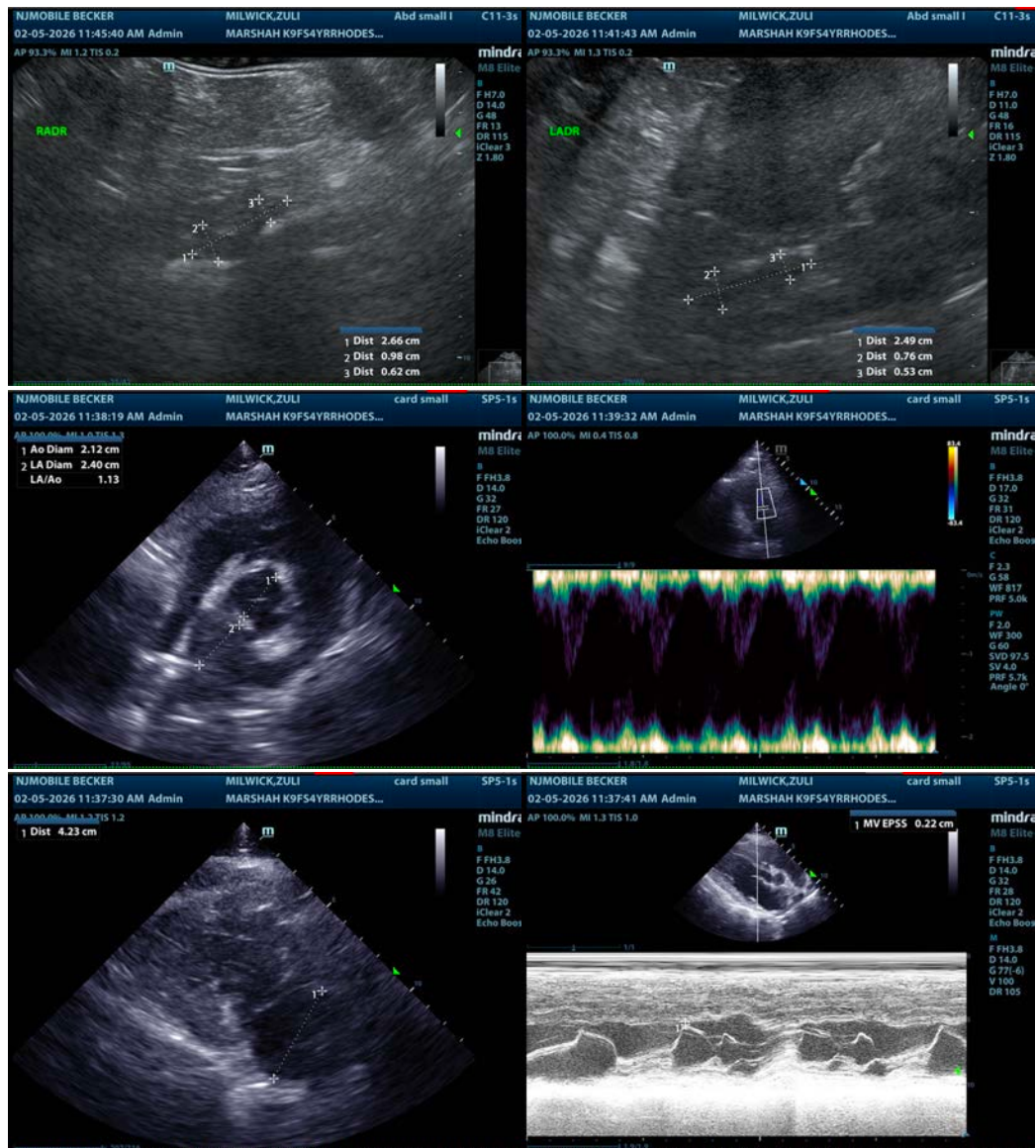
2/5/26

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

No evidence of pathology, similar to prior echocardiogram. The cause of incontinence is unclear. Structurally the abdomen is unremarkable. Examination of the vaginal vestibule for predisposing issues indicated. Partial water deprivation test could be considered.

For an additional charge an internal medicine consult can be utilized through [Sonopath.com](http://Sonopath.com). You can select the internal medicine drop down at <http://spa.sonopath.com/>.

One of the world's top internists & SonoPath associate Dr. Remo Lobetti BVSc, MMedVet, PhD, DECVIM can evaluate your case through SonoPath. <https://sonopath.com/resources/sonopath-services/internal-medicine-teleconsultation-services>





**PATIENT**

Zuli Milwick

**SPECIES**

Canine

**BREED**

Rhodesian Ridgeback

**SEX**

Spayed Female

**AGE**

4 Years 10 Months

**WEIGHT**

108 lbs

**INTERPRETED BY**

Eric Lindquist, DMV,  
DABVP (CFM), Cert.  
IVUSS

**IMAGING PERFORMED BY**

Kerri Becker

**HOSPITAL NAME**

Marsh Animal Hospital

**REFERRING VET**

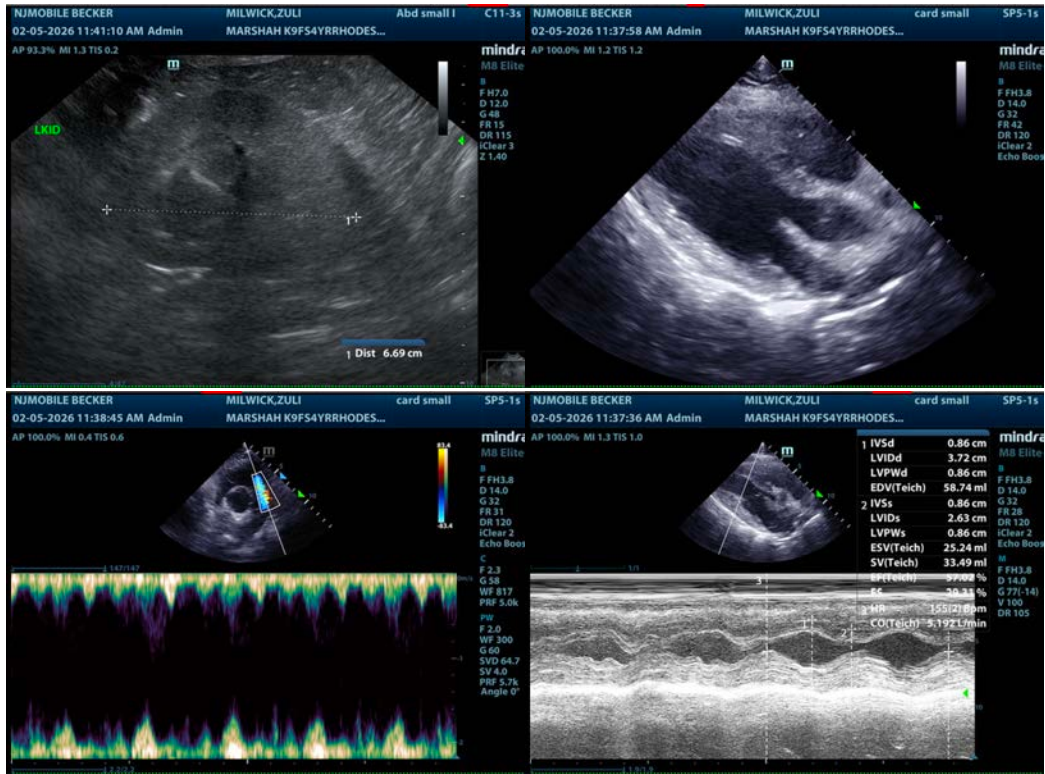
Dr. Milwick

**INVOICE**

72764

**DATE**

2/5/26



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, Owner, Founder -- SonoPath.com  
[info@SonoPath.com](mailto:info@SonoPath.com)