


PATIENT

Sadie Richards

SPECIES

Canine

BREED

Labrador Retriever

SEX

Spayed Female

AGE

11 Years

WEIGHT

97.8

INTERPRETED BY

 Eric Lindquist, DMV
 DABVP, Cert. IVUSS

IMAGING PERFORMED BY

Dr. Leon Anderson

HOSPITAL NAME

Elizabeth AH

REFERRING VET

Dr. Leon Anderson

INVOICE

26079

DATE

10/5/21

PRESENTING CLINICAL SIGNS

Recurring UTIs, Slight elevation to ALP, ALT and cPL-decreased appetite. Abnormal PE/Chem/CBC/UA Results: PE: stiff gait, crepitus in both stifles and thickening to both elbows - arthritis, 3+ cm mass in inside of left front elbow 9/9/21: Urinalysis: WBC 25 / HF,RBC >50 /HPF, Non-squamous epithelial cells >10/HPF SG- 1.032 pH- 8 Sediment- UPC: CBC: Lymphocytes 1.04 K/ μ L Chem: Glucose: 59 mg/dL, ALT 197 197 U/L, ALP 486 U/L, Triglyceride 162 mg/dL, Lipase 279 U/L, creatine Kinase 242 U/L Spec cPL: 325 μ g/L Cardiopet proBNP: N TT4: N FT4: N Heartworm / Ehrlichia / Lyme / Anaplas: N Fecal Antigen Screen & Flotation: N

ULTRASONOGRAPHIC EXAMINATION OF THE HEART & ABDOMEN

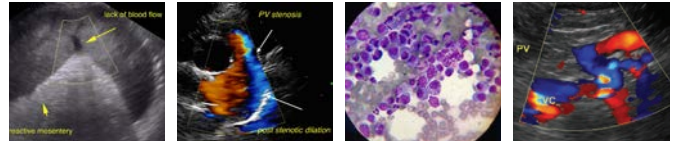
CANINE CARDIAC PARAMETERS	MR VMAX (m/s)	TR VMAX (m/s)	LA/AO (Boon method)	LA/AO (Heart Base; Swe)	FS (%)	EF (%)	EPSS (cm)
NORMAL PARAMETER	4.5-5.5	<2.7	1.3	<1.6	28-40	40-100	<0.6
PATIENT		1.8	1.16		35	66	NM
CANINE CARDIAC PARAMETERS	HR (BPM)	AV VMAX (m/s)	PV MAX (m/s)	BODY WEIGHT (kg)	LA 2D short axis 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				
PATIENT	1.1	1.5	4.3		3.6	3.36	

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** was mildly enlarged with a 1:1 ratio with the left atrium. The right ventricle presented slight dilation. Occasional arrhythmia noted. Minor **tricuspid** insufficiency noted at 1.8 m/sec. The **right ventricle** was of normal size (1/3 diameter of LV), chordae structure, myocardial echogenicity and thickness. Pulmonic velocity was significantly excessive at 4.3 m/sec. Pulmonic insufficiency noted at 2.5 m/sec. No visible **pericardial** or free pleura fluid was noted. Stenotic valve noted with excessive velocity, consistent with moderate pulmonic stenosis. The cranial **mediastinum and pericardial and extra-cardiac** regions were free of masses in the visible window.

Urinary System

The **urinary bladder** revealed an apical polypoid mass measuring approximately 3.0 cm. The mass appears resectable. The cystourethral junction, urethra and trigone appeared free of evident pathology. Iliac trifurcation was unremarkable.



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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. The right kidney measured 6.0 cm.

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Adrenal Glands

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Labrador Retriever

The **left adrenal gland** was 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 4.14 cm x 0.55 cm at the caudal pole and 0.54 cm at the cranial pole.

The region of the **right adrenal gland** was unremarkable.

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Spleen

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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. Slight hyperechoic lipogranulomatous changes noted, 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 were noted.

WEIGHT

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Liver

INTERPRETED BY

Eric Lindquist, DMV
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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

HOSPITAL NAME

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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

REFERRING VET

Dr. Leon Anderson

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.

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ULTRASONOGRAPHIC FINDINGS

- Pulmonic stenosis with secondary pulmonary insufficiency – fairly compensated according to velocities and pressure gradients, changes were moderate.
- Apical bladder mass – chronic cystitis possible. However, transitional cell carcinoma is a strong potential.

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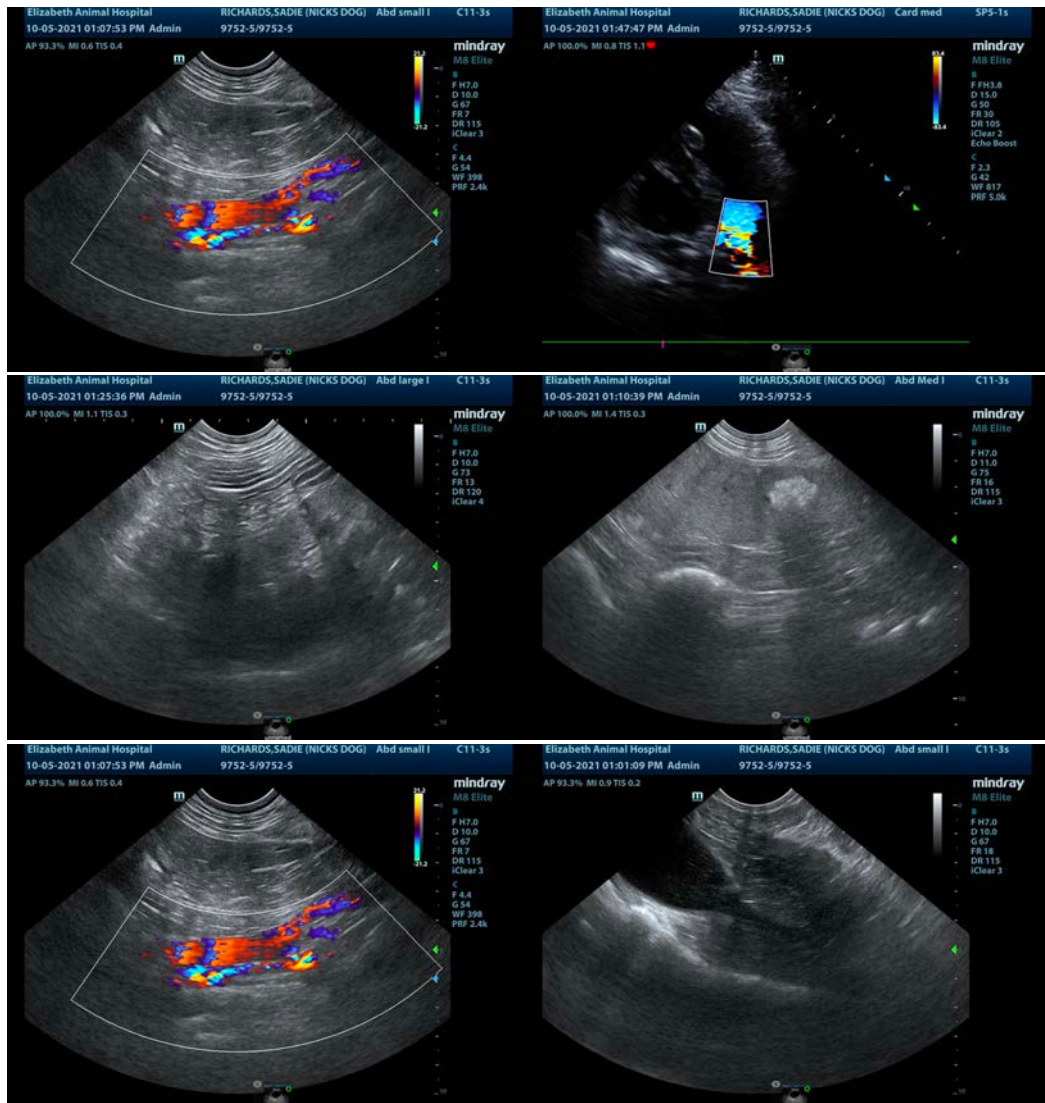
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INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

I recommend resection of the cranial third of the bladder wall with histopathology and culture of the bladder wall itself. There is mild anesthetic risk in this patient. Eventual balloon valvuloplasty would be appropriate. However, there are minimal right-sided secondary changes owing to the pulmonic stenosis. Torbutrol pre-med, Propofol induction, Isoflurane maintenance recommended for surgical intervention. No evidence of right-sided failure. This would be consistent with a congenital lesion that the patient has been living with for its entire life.



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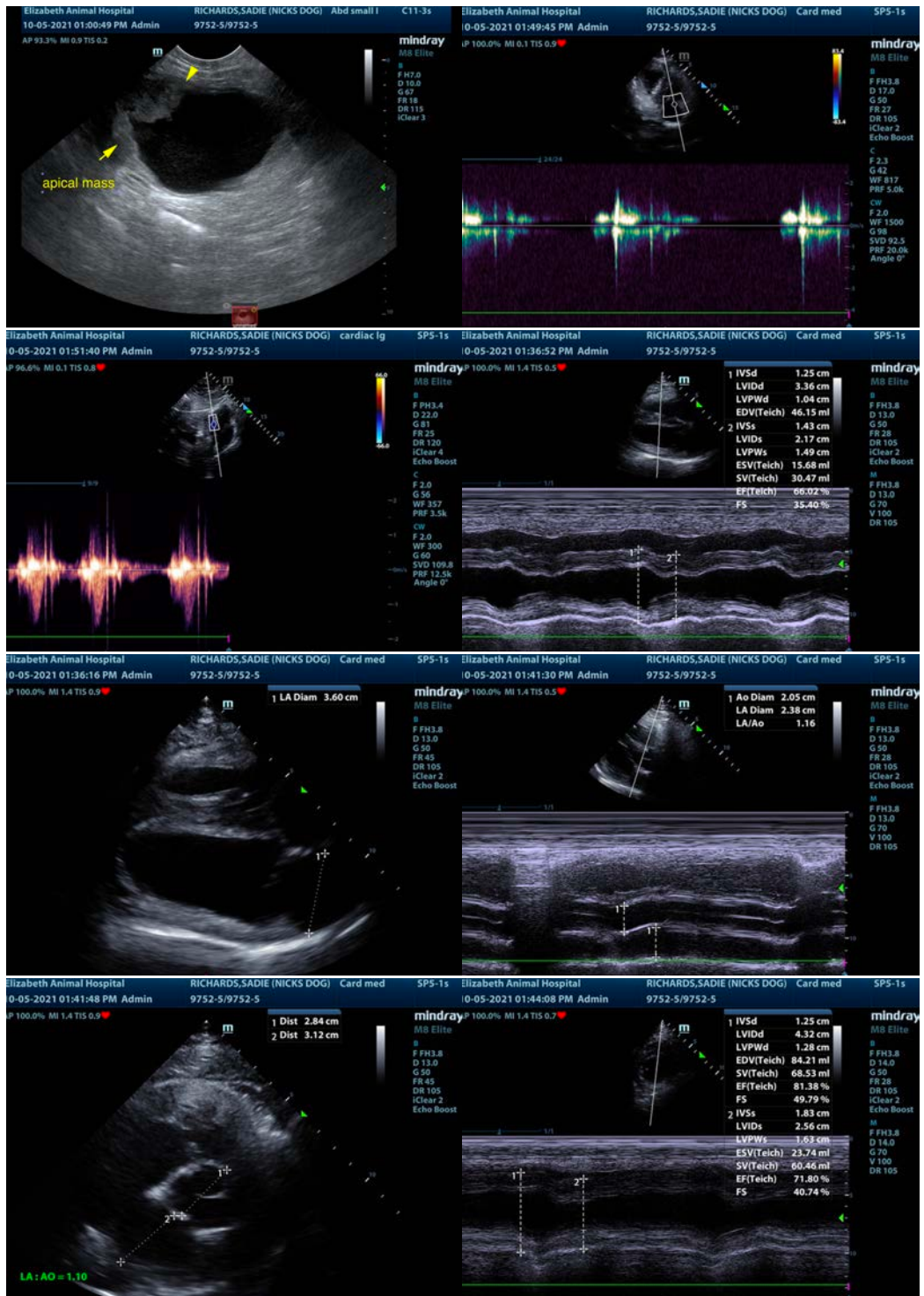
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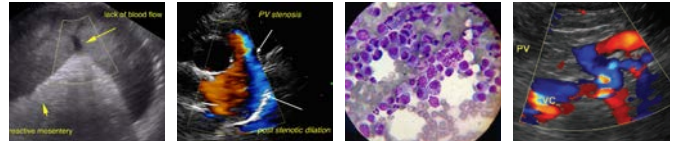
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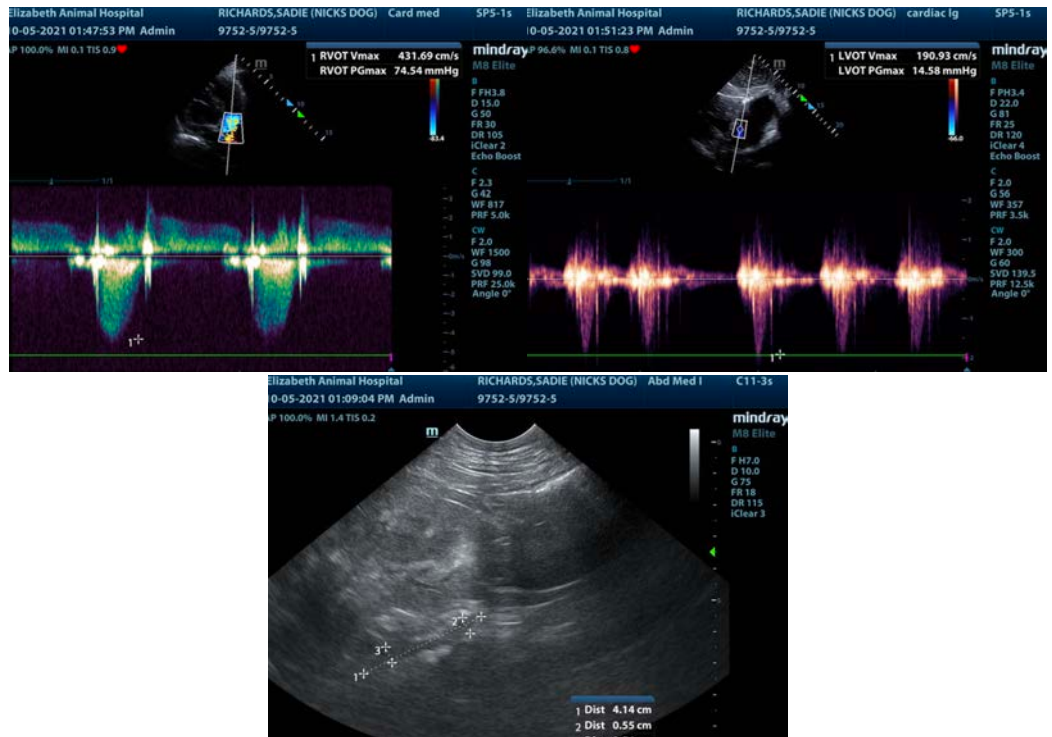
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The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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, Cert. IVUSS, CEO of SonoPath.com
info@SonoPath.com