



PATIENT

Luna Fitelson

SPECIES

Canine

BREED

Mix

SEX

Spayed female

AGE

13 years

WEIGHT

30 lbs

INTERPRETED BY

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

IMAGING PERFORMED BY

Chloe Lowe

HOSPITAL NAME

Hackettstown AH

REFERRING VET

Dr. Nause

INVOICE

73625

DATE

3/19/26

PRESENTING CLINICAL SIGNS

- Heart murmur. Previous echo 5/15/25
- Renal disease, previously PU/PD. Patient is on renal Diet
- 2/19/26 SDMA 14.1, BUN 38, Creat 2.6, Phos 5.5 3/16/26 SDMA 9.5, BUN 27, Creat 1.7, Phos 3.8 USG 1.008

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

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 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. The left kidney measured 4.53 cm. The right kidney measured 4.2 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 1.58 x 0.43 cm at the cranial pole and 0.57 cm at the caudal pole. The right adrenal gland measured 1.2 cm at the cranial pole and 0.7 cm at the caudal pole.

Spleen

The **spleen** in this patient was mildly enlarged with uniform parenchyma and was folded upon itself cranially. This is a positional variant and is not pathological. There was no evidence of significant disease.

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 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 EXAMINATION OF THE HEART

The **echocardiogram** presented a prominent **right heart** with mild **right ventricular** hypertrophy, **tricuspid** regurgitation was evident with relatively contained **right atrial** size. No evidence of neoplasia was noted in the right auricle, or elsewhere in the heart. The **pulmonary artery** was uniformly prominent. 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 respiratory disease or other causes of increased thoracic vascular pressure. The **left heart** demonstrated a linear **ventricular septum**. Contractility was functionally adequate demonstrated by the FS% measurement. The **mitral valve** revealed slight insufficiency. There was slight **left atrial** enlargement. 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.

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	5.8	-	NM	1.6	32	61	NM
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	131	1.0	0.9	30 lbs	4.7	3.34	



PATIENT **ULTRASONOGRAPHIC FINDINGS**

Luna Fitelson Benign abdomen
Age related changes, no evidence of pathology.
Canine Cor pulmonale with mitral valve insufficiency and left atrial enlargement.

BREED **INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

Mix I recommend initiating Pimobendan in this patient at 0.3 mg/kg b.i.d., ace inhibitor is indicated if any systemic hypertension is present.

SEX Spayed female The kidneys are 30% compromised. Complicating factors may be elevating the azotemia and causing PU/PD should be considered such as UTI and systemic hypertension. Infectious agents should be ruled out. Structurally the adrenal glands appear normal; however, if the patient appears Cushingoid I cannot rule out emerging PDH.

AGE 13 years Internal medicine consult can be utilized through Sonopath.com. You can select the internal medicine drop down at <http://spa.sonopath.com/>.

WEIGHT 30 lbs 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>

INTERPRETED BY

Eric Lindquist, DMV, DABVP (CFM), Cert. IVUSS, CEO of SonoPath.com The heart has minor volume overload and is working to compensate for the valvular insufficiency. Target respiratory rate is < 20 resp/minute after therapy. After initiating or adjusting therapy, I recommend recheck on the clinical exam, BUN, Creatinine, USG, Chest radiographs & Blood pressure in 5-7 days. Recheck echo in 3-6 months, earlier if clinical decompensation is occurring. Minor anesthetic risk for a brief procedure at this time. Repeat preanesthetic echo is ideal if anesthesia is eventually necessary. A suggested anesthetic combination would involve Torbutrol premed, propofol induction, Isoflurane maintenance or equivalent protocol.

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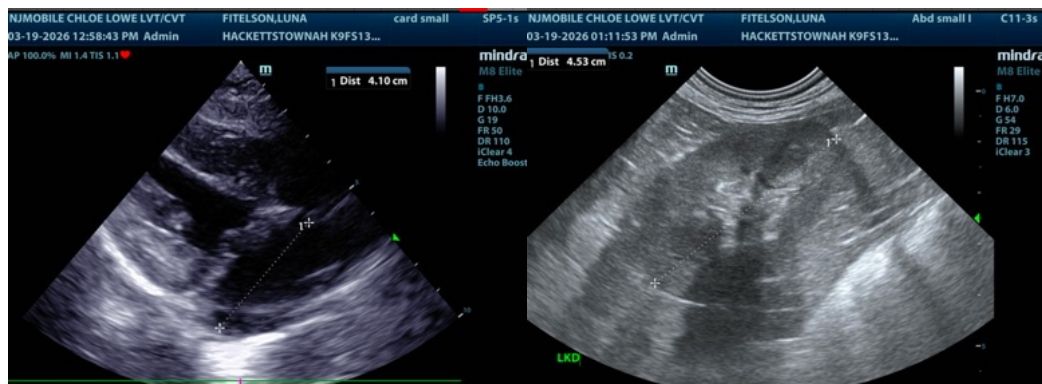
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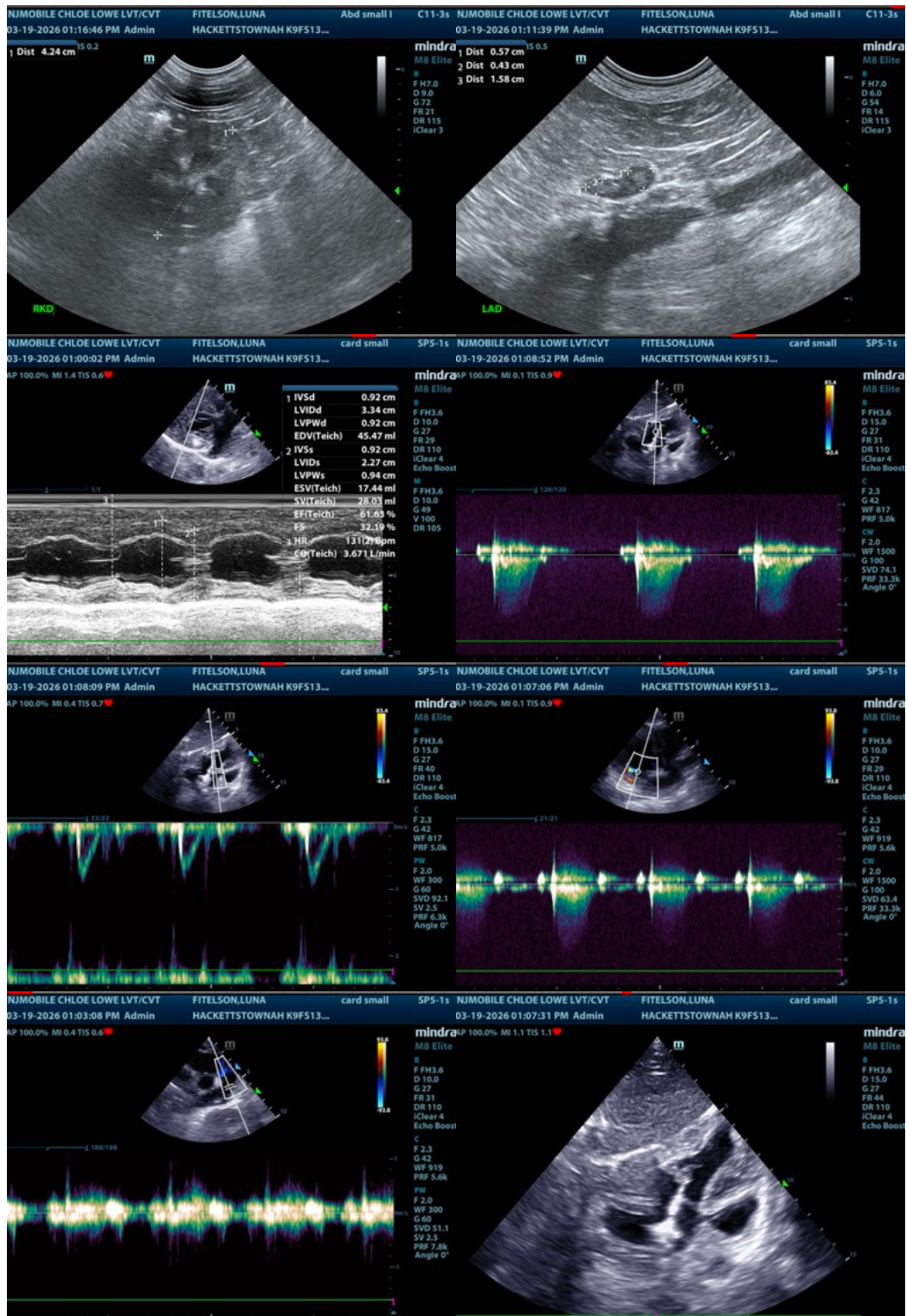
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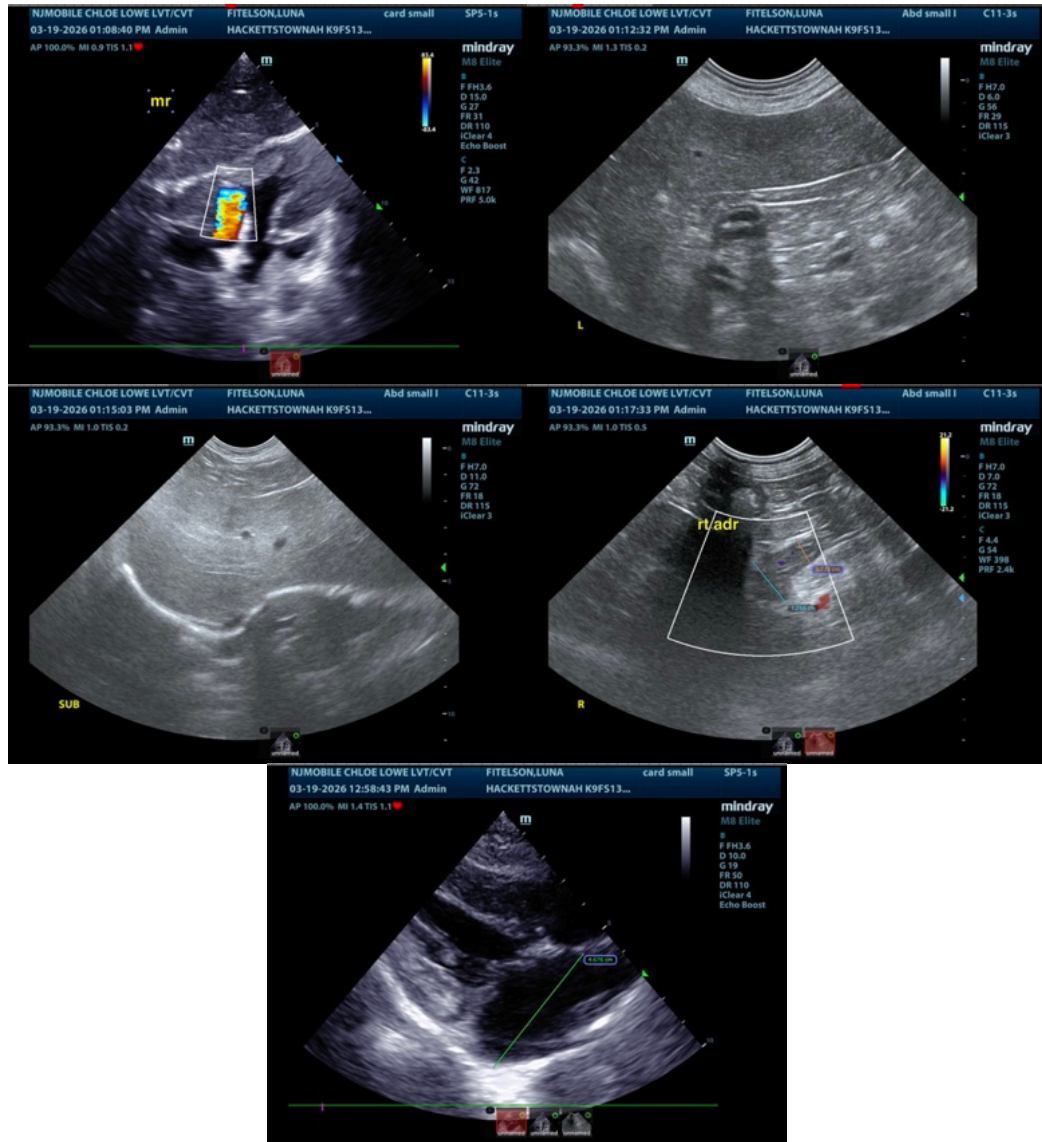
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

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 Info@SonoPath.com