



PATIENT

Luna Arechavala

SPECIES

Feline

BREED

Domestic Shorthair

SEX

Spayed female

AGE

9 ½ years

WEIGHT

9 lbs

INTERPRETED BY

Eric Lindquist, DMV
DABVP, Cert. IVUSS

IMAGING PERFORMED BY

Jack Reese

HOSPITAL NAME

Willow Run VC

REFERRING VET

Dr. Reese

INVOICE

71515

DATE

2/11/26

PRESENTING CLINICAL SIGNS

- Patient presented for second opinion for progressive weight loss and increased appetite at home
- Hypoalbuminemia, Proteinuria
- No gastrointestinal symptoms (V/D) noted
- History of gallop rhythm - P had previously received steroid treatment and felt that respiratory changes were noted (discontinued several months ago)
- Possible intestinal wall thickening (no recorded measurements) noted in previous records
- Mild ocular discharge (chronic)
- Splenomegaly noted on FAST scan
- Recommended full abdominal U/S, echocardiogram as next step
- RBC 6.18 (6.50 - 11.53 M/ μ L) - normal in Sept 2025 Hematocrit 24.9 (31.0 - 51.0 %) - normal in Sept 2025 Hemoglobin 8.4 (10.6 - 16.7 g/dL) - normal in Sept 2025 Lymphocytes 7.268 (0.65 - 6.86 K/ μ L) Nucleated RBCs 4 (0 - 2 per 100) Slight polychromasia, anisocytosis Albumin 2.5 (2.6 - 3.9 g/dL) - consistent with Sept 2025 labwork AST 98 (16 - 67 U/L) Texas A&M GI Panel - No abnormalities noted Urine Protein 2+ UPC 0.4 (0 - 0.2)

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 2.0 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. Mineralization was noted in the kidneys. The right kidney measured 3.8 cm. The left kidney measured 3.1 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 0.4 cm. The right adrenal gland measured 0.46 cm.

Spleen

The **spleen** was mildly enlarged with uniform, but subtly micronodular parenchyma, and undulating capsular contour. This is consistent with reactive spleen owing to immune stimulus or early infiltrative disease such as mast cell disease or lymphoma. 25-gauge FNA would be ideal if weight loss is an issue to differentiate early round cell neoplasia versus splenitis or reactive spleen all of which can present in this manner. The spleen measured up to 1.0 cm.



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Liver

The **liver** was slightly enlarged, mildly swollen and irregular in contour. 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.

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 in this patient demonstrated normal **left atrial** size based on 3 separate LA measurements. The cranial and caudal **mitral** valve leaflets presented normal linear structure and kinetics. The **left ventricle** presented normal 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 and angles 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 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 assessment revealed normal valve structure, laminar flow, and diameter (approx. 1:1 pa/ao ratio). 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.



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FELINE CARDIAC PARAMETERS	BODY WEIGHT	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	9 lbs	200	0.5	1.2	0.5	45	90
FELINE CARDIAC PARAMETERS	LA/AO (M-mode)	LA/AO HEART BASE (Sisson)	LAD LA MAX 4 Chamber	LVOT VEL. (m/s)	RVOT VEL. (m/s)	IVRT (m)	
NORMAL PARAMETER	<1.5	1.6	0.7-1.7	<1.6	<1.3	40-60	
PATIENT	1.0	1.3	1.2	NM	NM	NM	
Adapted from June Boon, Veterinary Echocardiography, 1998 Sisson D et al. JVIM 1991; 5: 232, Jacobs et al. Am J Vet Res 1985; 46:1705							

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ULTRASONOGRAPHIC FINDINGS

Splenohepatomegaly.

Multi-focal, hyperechoic nodular changes noted in the spleen.

No evidence of cardiac pathology.

INTERPRETED BY

Eric Lindquist, DMV
DABVP, Cert. IVUSS

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Screening FNA of the spleen and liver is recommended to ensure underlying round cell neoplasia. I recommend focusing diagnostic effort on the spleen and liver in this patient with ultrasound-guided FNA. There is a strong concern for round cell neoplasia.

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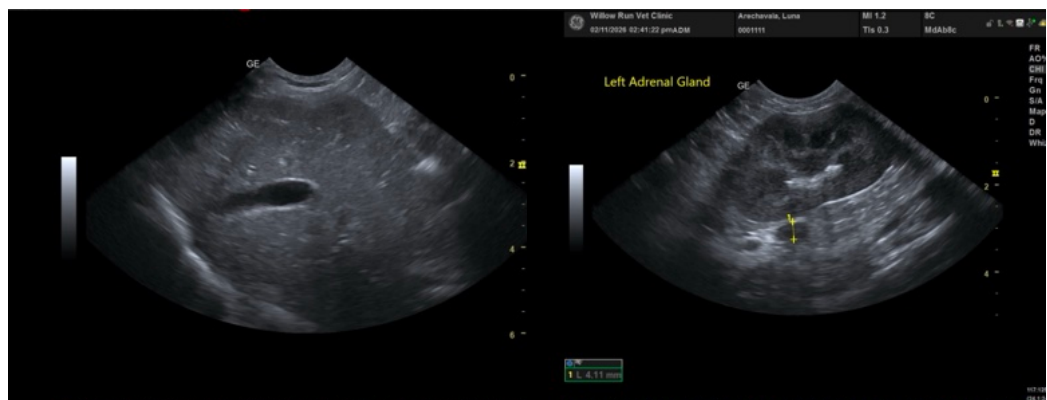
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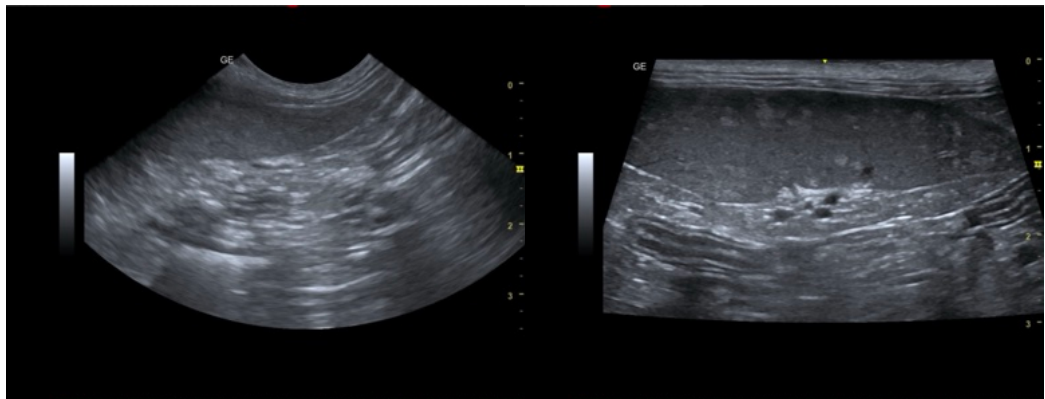
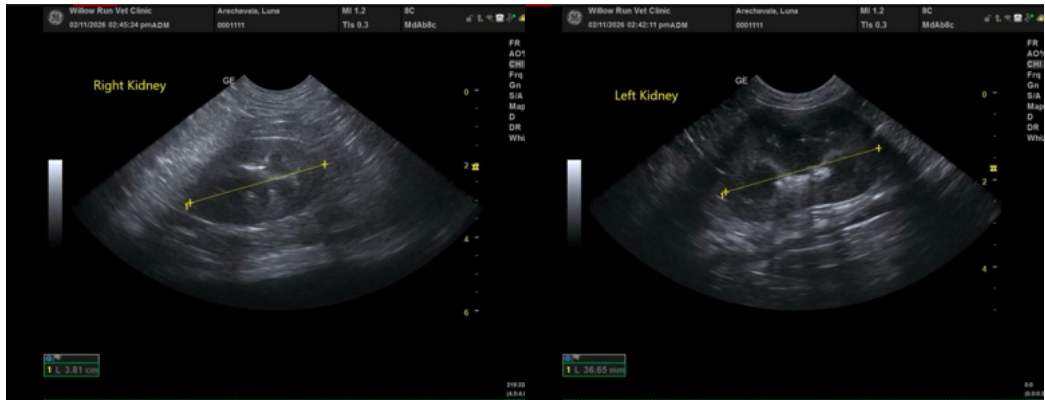
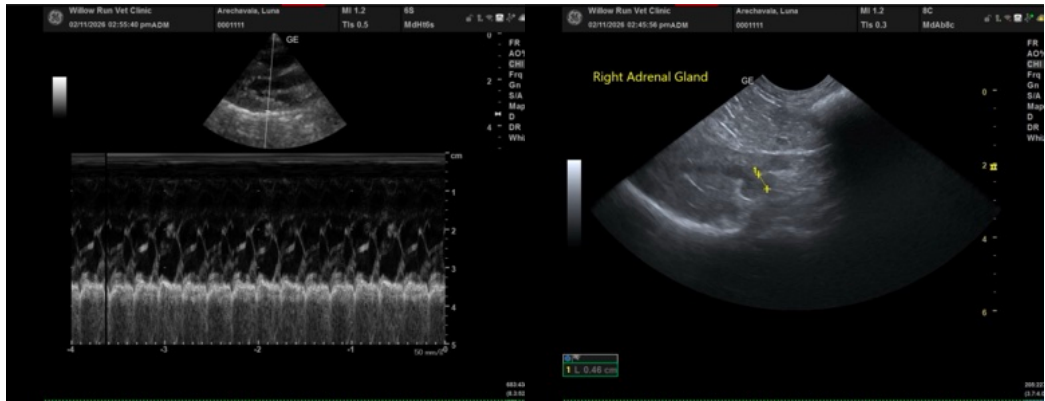
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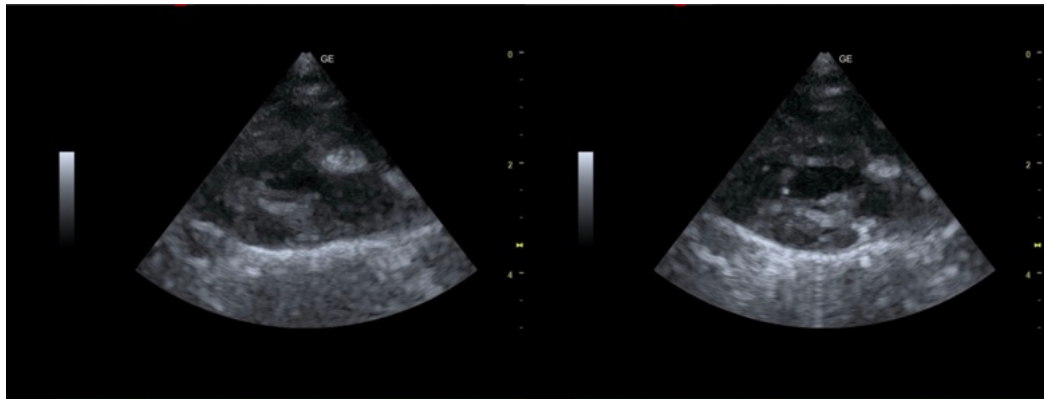
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

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

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