



**PATIENT**

Ariana Anderson

**SPECIES**

Feline

**BREED**

Siamese

**SEX**

Spayed Female

**AGE**

13.5 Years

**WEIGHT**

9.9 Pounds

**PRESENTING CLINICAL SIGNS**

Partial anorexia for 4 days. Current meds: Doxycycline, Mirataz, Laxatone, Lysine  
 Abnormal PE/Chem/CBC/UA Results: Wbc 21.8, SDMA 15, TP 5.2, ALb 2.8, Glob 2.7, elevated Lymphs, mono, baso's.

**ULTRASONOGRAPHIC EXAMINATION OF THE HEART & ABDOMEN**

FELINE CARDIAC PARAMETERS	BODY WEIGHT (kg)	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		190	0.53	1.14	0.57	39	74
FELINE CARDIAC PARAMETERS	LA/AO (Boon)	LA/AO HEART BASE (Sisson)	LA 2D 4-chamber long axis AS to FW (Sisson) (cm)	LVOT VEL. (m/s)	RVOT VEL. (m/s)	IVRT (m/)	
NORMAL PARAMETER	<1.5	0.88-1.79	0.7-1.7	<1.6	<1.3	40-60	
PATIENT	1.4	1.33	1.2	1.01	0.88	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							

**INTERPRETED BY**

Eric Lindquist, DMV

DABVP, Cert. IVUSS

**IMAGING PERFORMED BY**

Shari Reffi, CVT

**HOSPITAL NAME**

Sova Animal Hospital

**REFERRING VET**

Dr. Sova

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**Cardiac Presentation**

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.

**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.

The **left kidney** 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 cortex presented largely uniform texture with some increased



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echogenicity expected for his age patient. Medullary structure differed distinctly from that of the cortex and no evidence of pelvic dilation was present. The left kidney measured 3.35 cm.

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The **right kidney** was enlarged with subcapsular halo and pericapsular inflammatory pattern. Cortical remodeling and nodular changes noted. The right kidney measured 3.84 cm. Significant inflammation noted around the right kidney.

**Adrenal Glands**

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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 0.31 cm.

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**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.

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**Liver**

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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.

**INTERPRETED BY**

Eric Lindquist, DMV

**Gastrointestinal**

DABVP, Cert. IVUSS

The **stomach** itself was unremarkable. The distal small intestine revealed a regional thickening of 0.82 cm with loss of structural detail. Portions of jejunum presented infiltrative pattern with loss of structural detail. The intestinal infiltrative patterns were multifocal throughout much of the jejunum with regional inflammation.

**IMAGING PERFORMED BY**

Shari Reffi, CVT

**Pancreas**

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The left pancreatic limb presented hypoechoic, irregular parenchyma in a region of 2.12 cm x 0.73 cm in the caudal aspect of the left limb with regional hyperechoic surrounding fat, strongly suggestive for focal pancreatitis. The hypoechoic undifferentiated tissue extended into the mid left pancreatic parenchyma. The right limb was also enlarged, irregular and hypoechoic.

**REFERRING VET**

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**ULTRASONOGRAPHIC FINDINGS**

- Essentially normal echocardiogram
- Multifocal infiltrative intestinal pattern with pancreatic involvement and right renal involvement – multifocal lymphoma suspected.

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**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

No evidence of cardiac disease. FNA of the pancreas, right kidney, and intestinal wall all indicated.

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**Radiographs: Excessive GI gas, mild cardiac enlargement.**



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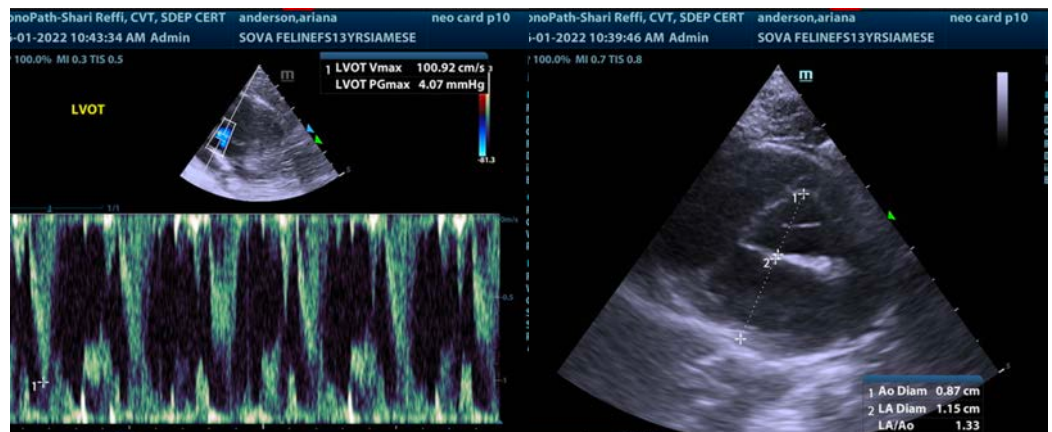
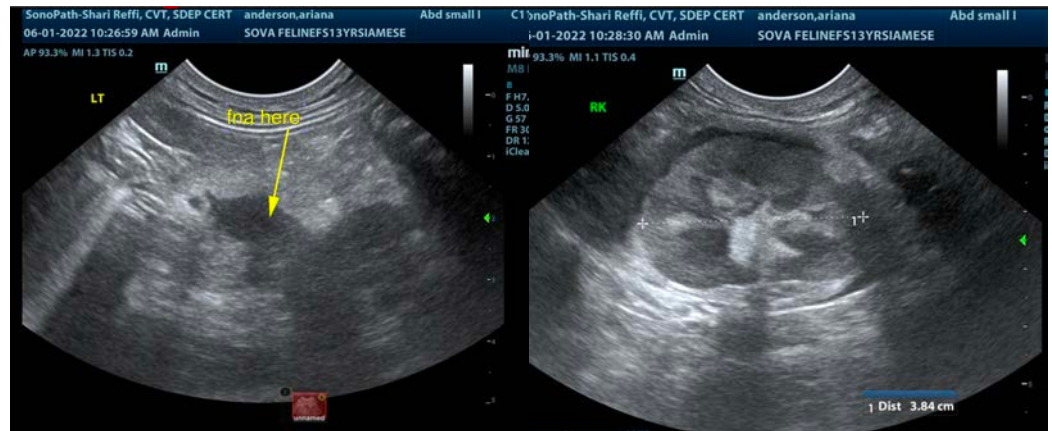
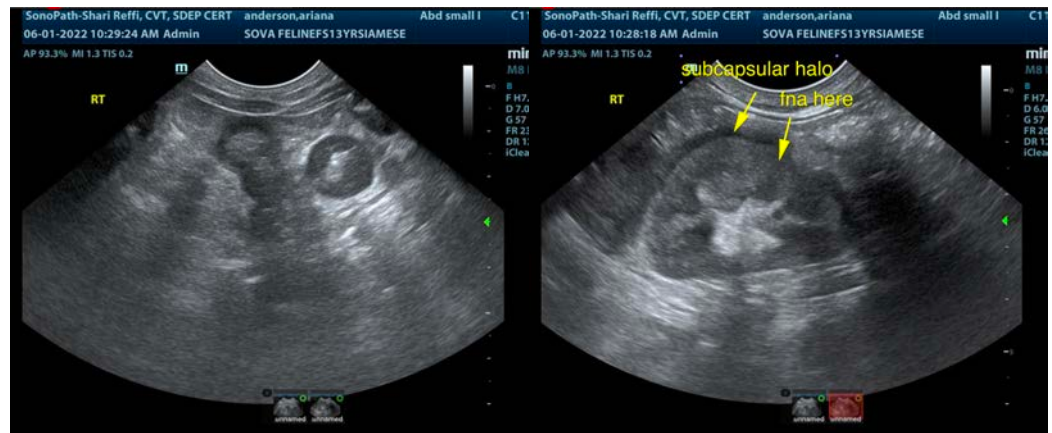
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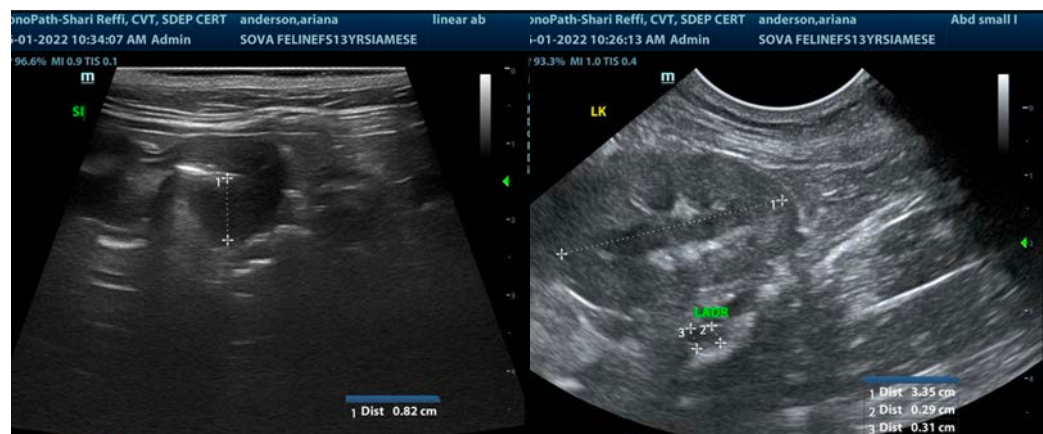
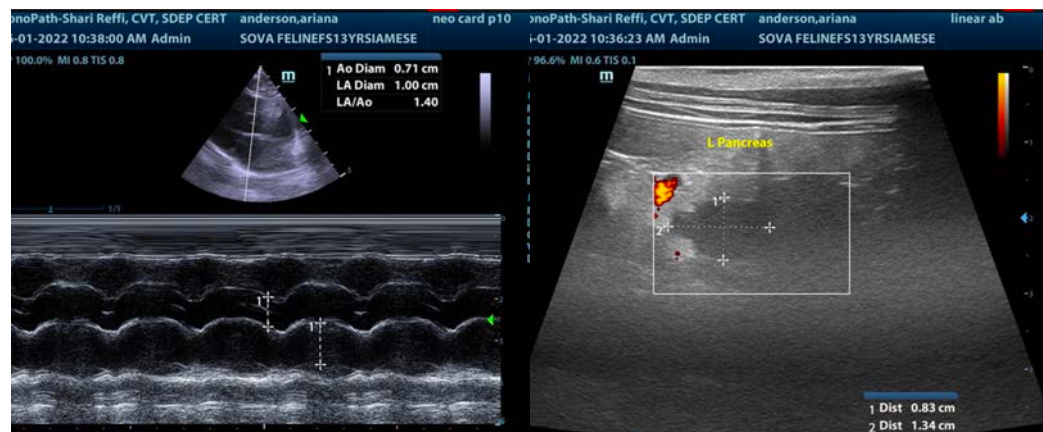
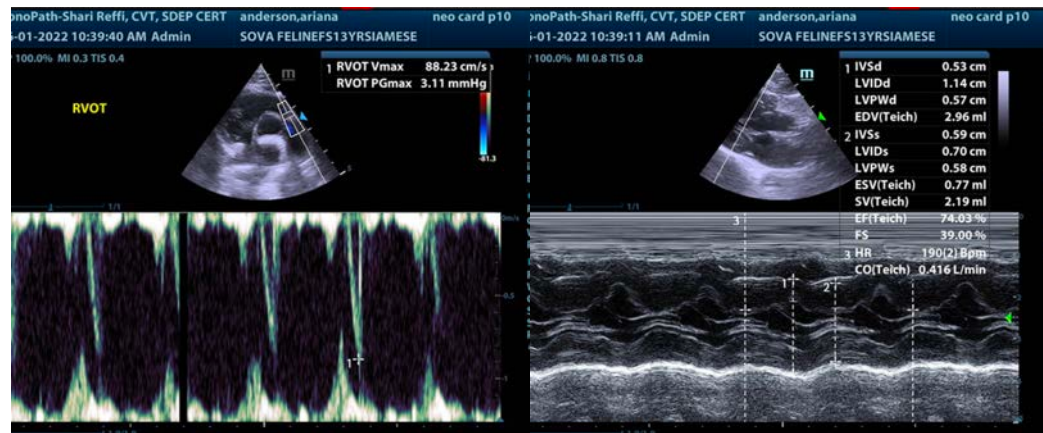
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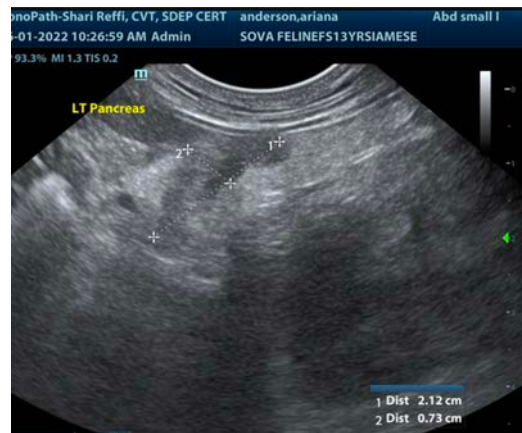
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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, Cert. IVUSS, CEO of SonoPath.com

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