



**PATIENT**

Rusty Rex

**SPECIES**

Canine

**BREED**

Retriever Mix

**SEX**

Neutered Male

**AGE**

12 Years 1 Month

**WEIGHT**

88.5 pounds

**INTERPRETED BY**

R. McKenzie Daniel,  
DVM, DABVP (Canine  
/ Feline Practice)

**IMAGING PERFORMED BY**

Shari Reffi CVT

**HOSPITAL NAME**

Animal Mansion  
Veterinary Hospital

**REFERRING VET**

Dr. Shelly Parker

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15463

**DATE**

04/24/26

**PRESENTING CLINICAL SIGNS**

Weight loss, inappetence, coughing, depression. Suspicious opacity in cranial abdomen and heart base (rads attached for reference). No current medications, just finished course of Pred 20mg taper dose (began 4/4-last dose 4/21)

Abnormal PE/Chem/CBC/UA Results: Hyperglobulinemia

**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	--	--	NM	1.2	30	60	0.4
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	NM	1.2	0.7	88.5	4.0	4.0	--

**Cardiac Presentation**

The echocardiogram in this patient demonstrated normal **left atrial** dimension based on 2 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. Minor central MR on doppler. 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 borderline subnormal yet adequate 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. No evidence of arrhythmia.

**Urinary System**



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The urinary bladder, trigone, cystourethral junction, and visible pelvic urethra to a depth of 3.0 cm exhibited normal thickness and tone. Anechoic urine was present in the lumen with no uroliths or sediment. The ureteral papillae were normal. The ureters were not visible which is normal. No evidence of inflammatory or neoplastic change were noted.

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The area of the aortic trifurcation was free of pathology.

The area of the residual prostate appeared normal and free of pathology.

**BREED**

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Normal size and margination was present in the kidneys. A normal 1:3 cortex / medulla ratio was maintained. The medulla and cortices were uniform in texture with some increased echogenicity and loss of corticomedullary symmetry and definition expected for the age of the patient. No evidence of pelvic dilation was present. The left kidney measured 7.3 cm in length. The right kidney measured 6.8 cm in length.

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**Adrenal Glands**

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A nonhomogeneous mildly hyperechoic nonmineralized nodule was present in the left adrenal gland with mild associated symmetrical capsule expansion occupying a majority of the parenchyma. The nodule did not exhibit signs of mineralization or vascular invasion. The nodule measured 2.7 cm x 1.5 cm. The overall left adrenal gland measured 4.0 cm x 2.0 cm width at the cranial pole and 0.88 cm width at the caudal pole.

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A nonhomogeneous mildly hyperechoic nodule was present in the cranial right adrenal gland without associated symmetrical capsule expansion. The nodule did not exhibit signs of mineralization or vascular invasion. The nodule measured 1.6 cm x 1.3 cm. The overall right adrenal gland measured 3.4 cm length x 1.5 cm width at the cranial pole and 0.86 cm width at the caudal pole.

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**Spleen**

A mass involving the cranial spleen with secondary capsule expansion and disruption was present and measured approximately 8.0 cm in diameter. The parenchyma of the mass was mixed echogenic to regionally hypoechoic without areas of cavitation. The non-affected spleen exhibited primarily finely textured and homogenous parenchyma which was hyperechoic to the liver and renal cortical parenchyma. The splenic vasculature at the hilus was normal in volume with no evidence of congestion or thrombosis. Concurrent separate hypoechoic medial parenchyma to perihilar nodules were present.

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**Liver & Gallbladder**

The liver presented subjective mildly enlarged in size. The parenchyma of the liver was subjectively normal in echogenicity compared to the spleen and renal cortices. The liver parenchyma was uniform with a mildly coarse echotexture. The capsule of the liver was symmetrically rounded to mildly swollen in margination. The hepatic and portal vasculature were normal in appearance without signs of congestion. Discrete ventrocaudal intraparenchymal hypoechoic nodule was present measuring 0.82 cm in diameter.

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The gallbladder was non-distended in size with thin walls and primarily anechoic luminal content. The cystic and common bile ducts were normal.

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**Gastrointestinal**

The stomach presented intact wall layering with a normal wall layer ratio. The lumen of the stomach was empty with no signs of ileus, obstruction or foreign material.



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The small intestine presented intact wall layering with 1:3 muscularis/mucosa ratio. The lumen of the small intestine was empty with no signs of ileus, obstruction or foreign material.

Normal visible colon wall layers were present with apparent formed feces in lumen.

***Pancreas***

The right pancreas presented asymmetrically enlarged exhibiting nonhomogenous hypoechoic parenchyma.

***Free Abdomen***

No overt lymphadenopathy or peritoneal effusion was present.

**ULTRASONOGRAPHIC FINDINGS**

- Normal echocardiogram with borderline subnormal yet adequate LV systolic function.
- Minor central MR.
- Splenic mass with concurrent hyperechoic splenic nodules.
- Mild hepatomegaly with discrete intraparenchymal nodule.
- Sonographically normal gastrointestinal tract.
- Right limb chronic active pancreatitis pattern.
- Age-related renal changes.
- Bilateral nodular adrenal glands.

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

The splenic mass is nonspecific with considerations including hyperplasia, hematopoiesis, granuloma, splenitis, or neoplasia (sarcoma, round cell neoplasia, other). The separate hyperechoic splenic nodules are suggestive of benign criteria i.e. myelolipomas or nodular hyperplasia.

The discrete liver nodule likewise is nonspecific with potential discrete hyperplasia, small granuloma, although focal early metastasis is not excluded. No overt evidence of cardiac or pericardial primary or metastatic neoplastic criteria. Possible additional non-sonographically evident metastasis/micrometastasis is not definitively excluded.

Respiratory and gastrointestinal support is recommended. A GI panel to include PLI, TLI, cobalamin and folate may be considered to correlate with the pancreas and assess for non-structural intestinal disease as a contributing factor to the weight loss. Cardiac anesthetic risk is considered mild. Suggested anesthetic protocol may include opioid or Benzodiazepine pre-med, induction with Propofol or Alfaxalone, and appropriate gas anesthesia with avoidance of alpha 2 agonists.



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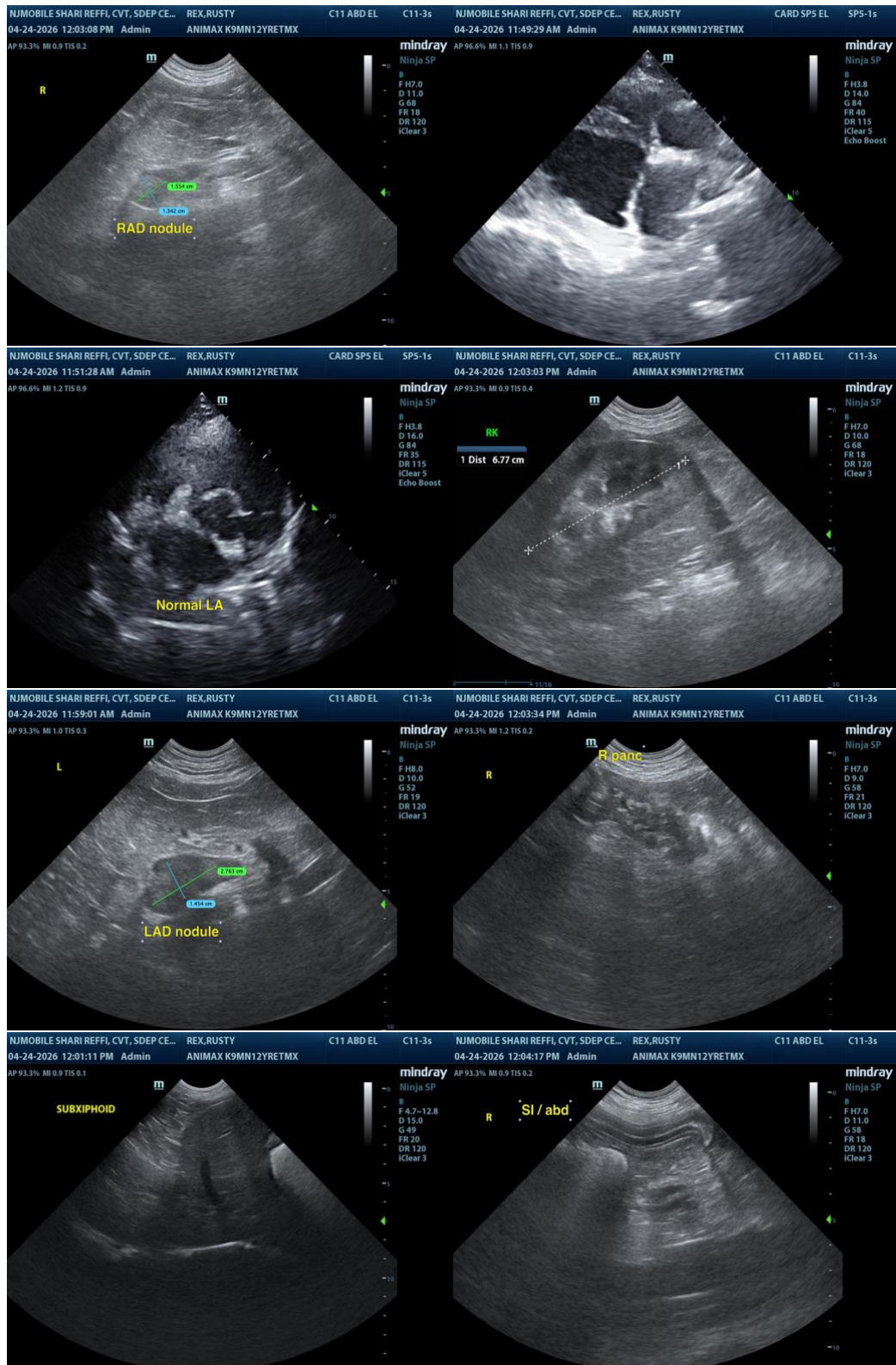
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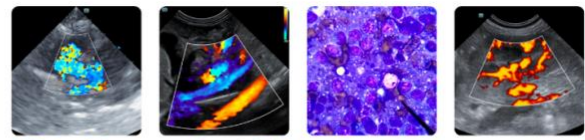
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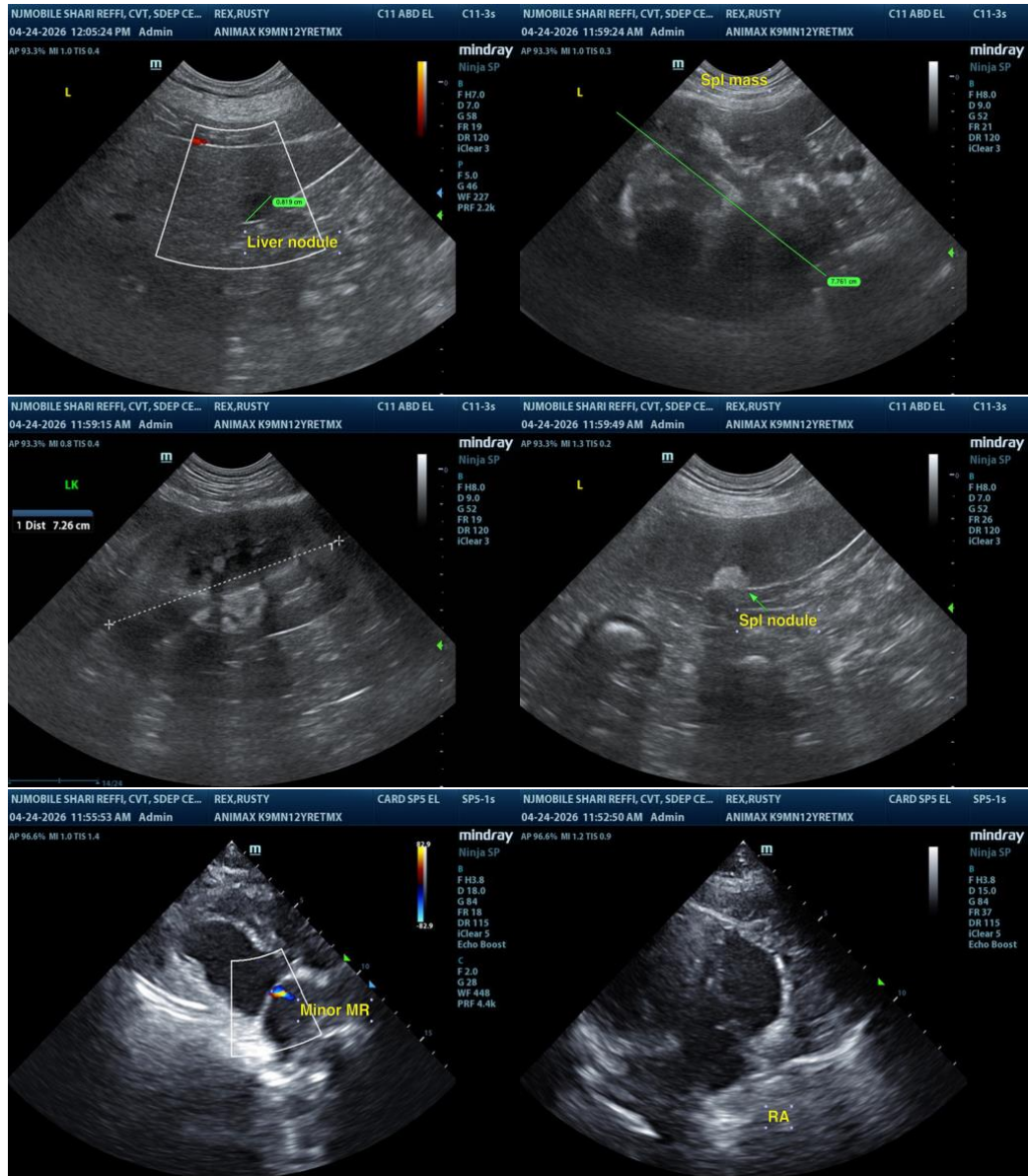
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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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