



PATIENT

Puppet Helmlinger

SPECIES

Feline

BREED

DSH

SEX

Neutered Male

AGE

8

WEIGHT

8.4

INTERPRETED BY

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

IMAGING PERFORMED BY

Jenn

HOSPITAL NAME

Rockaway Animal
Hospital

REFERRING VET

Dr. Salazar

INVOICE

13454

DATE

01/30/26

PRESENTING CLINICAL SIGNS

- vomiting, anorexia
- Current meds Cerenia Pantoprazole

Abnormal PE/Chem/CBC/UA Results: ALP low(11) K low (3.2) rest WNL proBNP normal

ULTRASONOGRAPHIC EXAMINATION OF THE HEART & ABDOMEN

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	8.4	NM	0.49	1.2	0.5	50	82
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	--	1.4	1.3		NM	0.9	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							

Cardiac Presentation

The echocardiogram in this patient demonstrated normal **left atrial** dimension based on 2 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 was mildly distended in size with normal tone. The trigone, cystourethral junction and pelvic urethra to a depth of 3.0 cm exhibited normal tone. Primarily anechoic urine was present in the lumen. Echogenic to particulate nondependent mild sediment was present without evidence of



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calculus formation. The ureteral papillae were normal. The ureters were not visible which is normal. No evidence of inflammatory or neoplastic mural changes were noted.

The area of the iliac trifurcation was free of pathology.

Normal renal size with asymmetrical margination was present in both kidneys. The renal cortex presented uniformly increased in echogenicity with uniform echotexture. The renal cortex appeared to be hypertrophied resulting in an altered cortex: medulla ratio. Loss of corticomedullary distinction was also present. The left kidney measured 3.8 cm in length. The right kidney measured 3.6 cm in length.

Adrenal Glands

The left and right adrenal glands were not definitively visualized with no obvious pathology.

Spleen

The spleen exhibited a finely textured and homogenous parenchyma which was hyperechoic to the liver and renal cortical parenchyma. The capsule was smooth and regular without apparent expansion. The splenic vasculature at the hilus was normal in volume with no evidence of congestion or thrombosis. Acute to chronic inflammatory, neoplastic, or benign parenchyma changes were not noted.

Liver & Gallbladder

The liver was subjectively normal in size, structure, and contour. The liver parenchyma was uniform and hypoechoic to the spleen with a mild coarse echotexture. The hepatic and portal vasculature were normal in appearance without signs of congestion.

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

Gastrointestinal

The stomach presented intact wall layering with a normal wall layer ratio. The lumen of the stomach contained mild retained anechoic fluid without evidence of shadowing content or obstruction to pyloric outflow. The stomach wall measured 0.26 cm wall width.

The intestinal walls demonstrated generalized intact nonthickened to borderline thickened intestinal wall exhibiting subjective mild altered wall layer ratio owing to mildly prominent intestinal muscularis layer to the level of the ileocolic junction. The jejunum wall measured 0.25 cm wall width. The ileocolic wall measured 0.37 cm wall width. Intermittent minor nonobstructive intestinal ileus and segmental gas.

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

Pancreas

The left pancreas presented prominent in size with heterogeneous parenchyma compared to adjacent omentum.

Free Abdomen

No visualized significant omental lymphadenopathy or peritoneal effusion was present.



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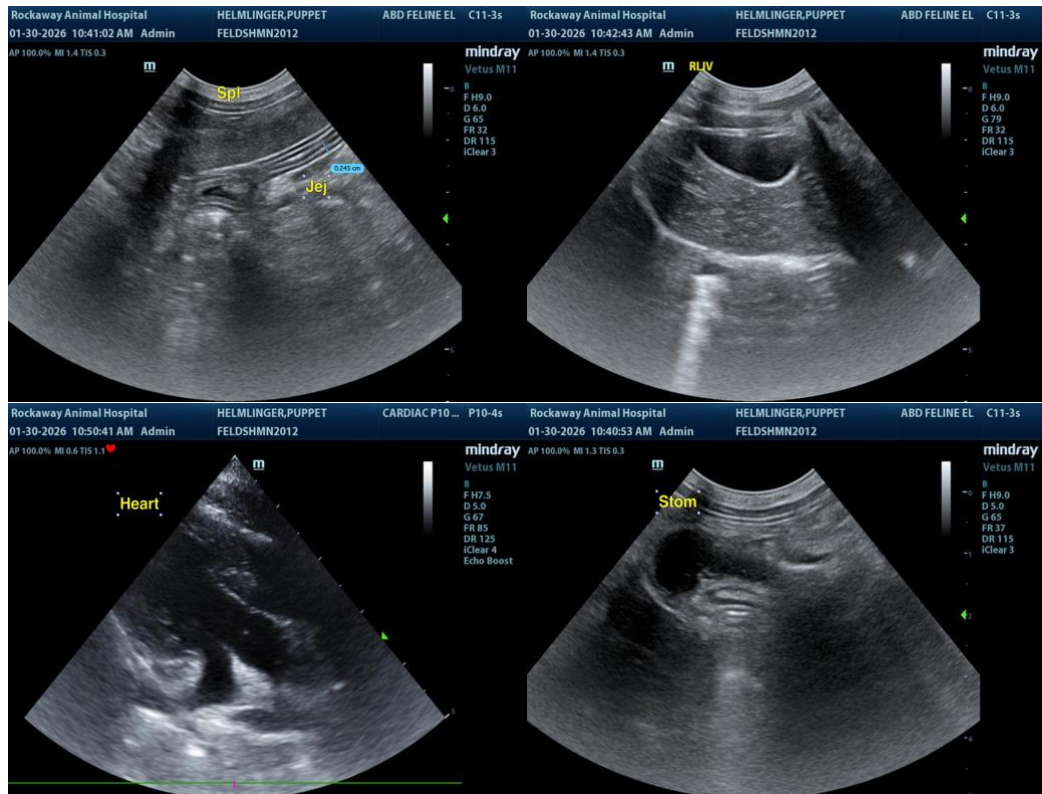
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ULTRASONOGRAPHIC FINDINGS

- Normal echocardiogram.
- Mild nonobstructive hypomotile stomach.
- Nonspecific enteropathy.
- Left limb chronic pancreatitis.
- Chronic renal changes.
- Urine sediment.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

No evidence of mechanical gastrointestinal obstruction or foreign material. The small intestine exhibited overall non-thickened to subtle wall changes which are suggestive of mild enteropathy with considerations including non-specific enteritis, low-grade IBD, less likely emerging to occult intestinal round cell neoplasia. Assessment for evidence of cranial abdomen/subxiphoid discomfort on palpation to correlate with pancreas in the GI panel to include PLI, TLI, cobalamin and folate is recommended. Gastrointestinal support and empirical therapy for chronic pancreatitis with clinical monitoring would be appropriate. No overt evidence of adrenal pathology yet if persistent or progressive hypokalemia, serum aldosterone level may be considered.





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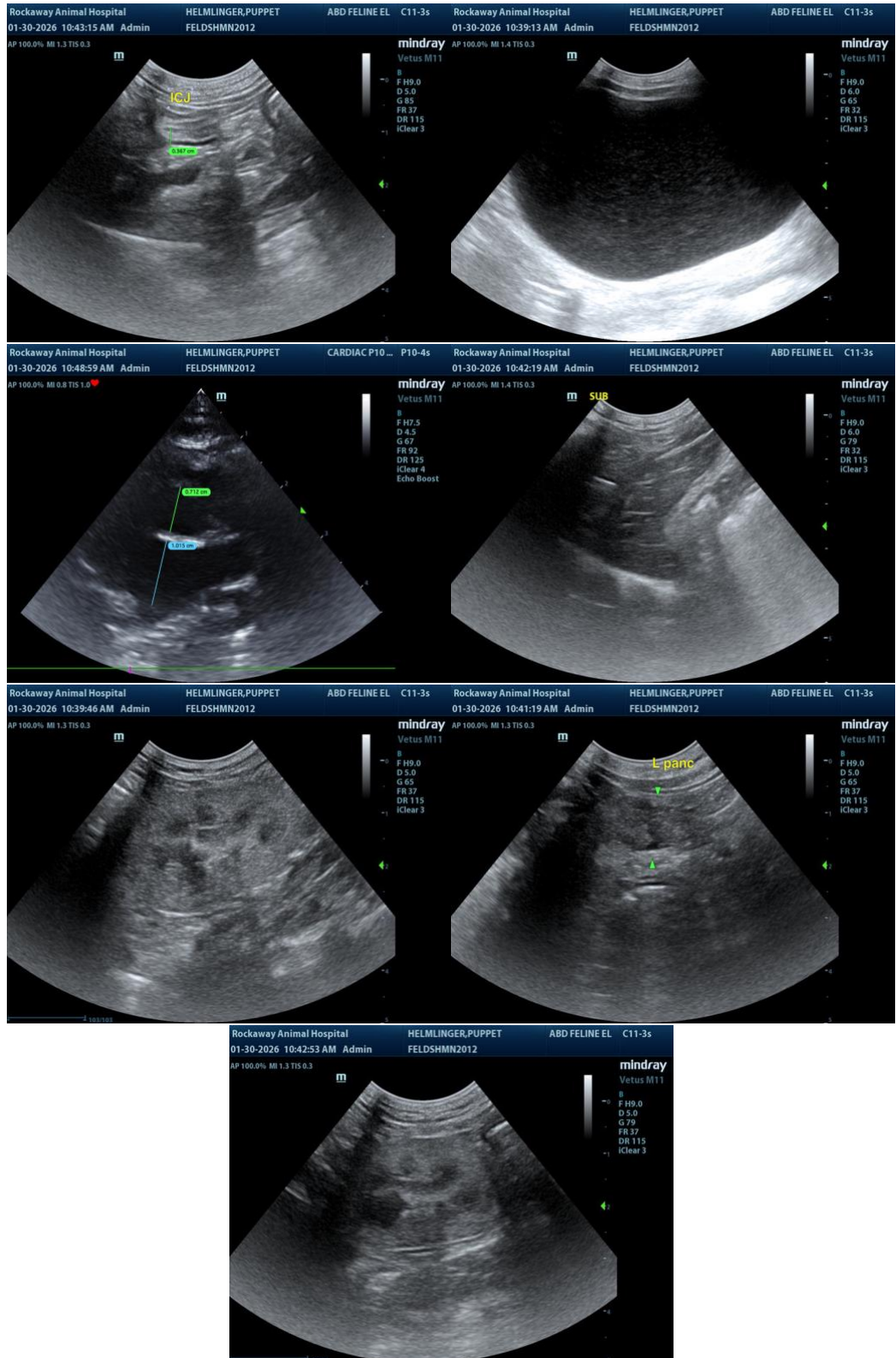
Dr. Salazar

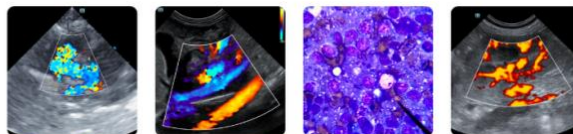
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

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

info@SonoPath.com