



PATIENT

Bugsy Renner

SPECIES

Feline

BREED

DSH

SEX

Male Neutered

AGE

8y 2m

WEIGHT

15.25 lbs

INTERPRETED BY

R. McKenzie Daniel,
 DVM, DABVP
 (Canine and Feline)

IMAGING PERFORMED BY

Chloe Lowe, CVT

HOSPITAL NAME

All Animal VS

REFERRING VET

Dr. Acworth

INVOICE

13321

DATE

3/25/26

PRESENTING CLINICAL SIGNS

History:

- Hx of anorexia, labor findings abnormal
- Pre-surgical for possible dental procedure.
- Bloodwork showed increased liver enzymes, and ECG had left anterior fascicular block.
- Rays of chest showed heart a silhouette rounded.

Abnormal PE/Chem/CBC/UA Results: Decreased BUN, increased ALT, AST, ALP, and Total Bilirubin. ECG left anterior fascicular block

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 | -- | 233 | 0.51 | 1.59 | 0.51 | 56 | 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 | -- | 1.1 | 1.3 | | 1.0 | 1.0 | -- |
| 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** size 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



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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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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. Primarily anechoic urine was present in the lumen. Mild to moderate, echogenic to particulate non-dependent sediment was present without evidence of 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.

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The area of the aortic trifurcation was free of pathology.

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Normal renal size with asymmetrical margination was present in both kidneys. The renal cortex presented mildly thickened and hyperechoic with uniform echotexture. The renal cortex appeared to be hypertrophied resulting in an altered cortex: medulla ratio. Mildly enhanced loss of corticomedullary distinction was also present. The left kidney measured 4.8 cm in length. The right kidney measured 4.7 cm in length.

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Adrenal Glands

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The left adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The left adrenal gland measured 0.41 cm. The right adrenal gland was indistinctly visualized with no obvious pathology subjectively measuring 0.45 cm.

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Spleen

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The mid splenic spleen is mildly enlarged with asymmetrical to scalloped medial capsule contour exhibiting primarily finely textured and homogenous parenchyma which was hyperechoic to the liver and renal cortical parenchyma. Multiple, variably sized to coalescing, well-defined, symmetrical, mildly hyperechoic nodules were present with an example measuring 1.1 cm in diameter. 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 or neoplastic changes were not noted. The hyperechoic nodules tend to trend benign and are most consistent with benign hyperplasia or myelolipomas.

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Liver

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The liver presented mildly normal in size with normal vascular volume. Homogeneous, mildly increased hepatic parenchyma compared to the spleen and renal cortices. The echotexture of the liver parenchyma was uniform with a mild coarse echotexture. The capsule of the liver was symmetrical in margination. The hepatic and portal vasculature were normal in appearance without signs of congestion. The gallbladder was non distended in size with mild to moderate, non-dependent, non-organized, echogenic, nonmineralized biliary sludge. The proximal common bile duct was dilated and tortuous without overt post hepatic obstruction.

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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. Minor, non-obstructive duodenal ileus. The lumen of the small intestine was empty with no signs of obstruction or foreign material. Duodenum wall measured 0.24 cm and jejunum wall measured 0.20 cm.

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

Pancreas

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The left and right pancreas presented prominent in size with capsule asymmetry and variable non-homogeneous remodeled parenchyma exhibiting decreased right pancreatic limb parenchyma echogenicity. Mild surrounding hyperechoic peripancreatic omentum.

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Free Abdomen

No overt lymphadenopathy or peritoneal effusion was present.

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ULTRASONOGRAPHIC FINDINGS

- Normal cardiac structure/function
- Hepatopathy
- Gallbladder debris with mild, non-obstructive proximal common bile duct dilation
- Chronic/chronic active pancreatitis pattern with remodeling
- Sonographically normal gastrointestinal tract with mild, non-obstructive duodenal ileus
- Mild, nonspecific chronic renal changes
- Urinary bladder sediment
- Mild splenomegaly with multiple to coalescing, hyperechoic nodules

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INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Although nonspecific, the hepatobiliary presentation is most suggestive of benign criteria with cholangiohepatitis or similar, with inflammatory etiology suspected. Multiple to coalescing splenic myelolipomas with concurrent hyperplasia, hematopoiesis or splenitis suspected with hepatosplenic neoplasia thought less likely. Further assessment may include, assuming normal clotting status and using 25-gauge needle, hepatosplenic FNA cytology. Although no evidence of structural gastrointestinal disease, triaditis could be a potential consideration if gastrointestinal signs or weight loss are non-reported or arise. Screening GI panel could be considered.

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From a cardiac structural or functional standpoint, no anesthetic contraindications. 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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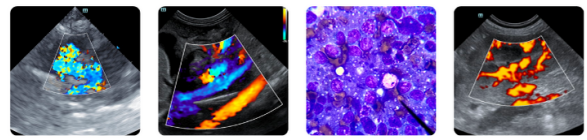
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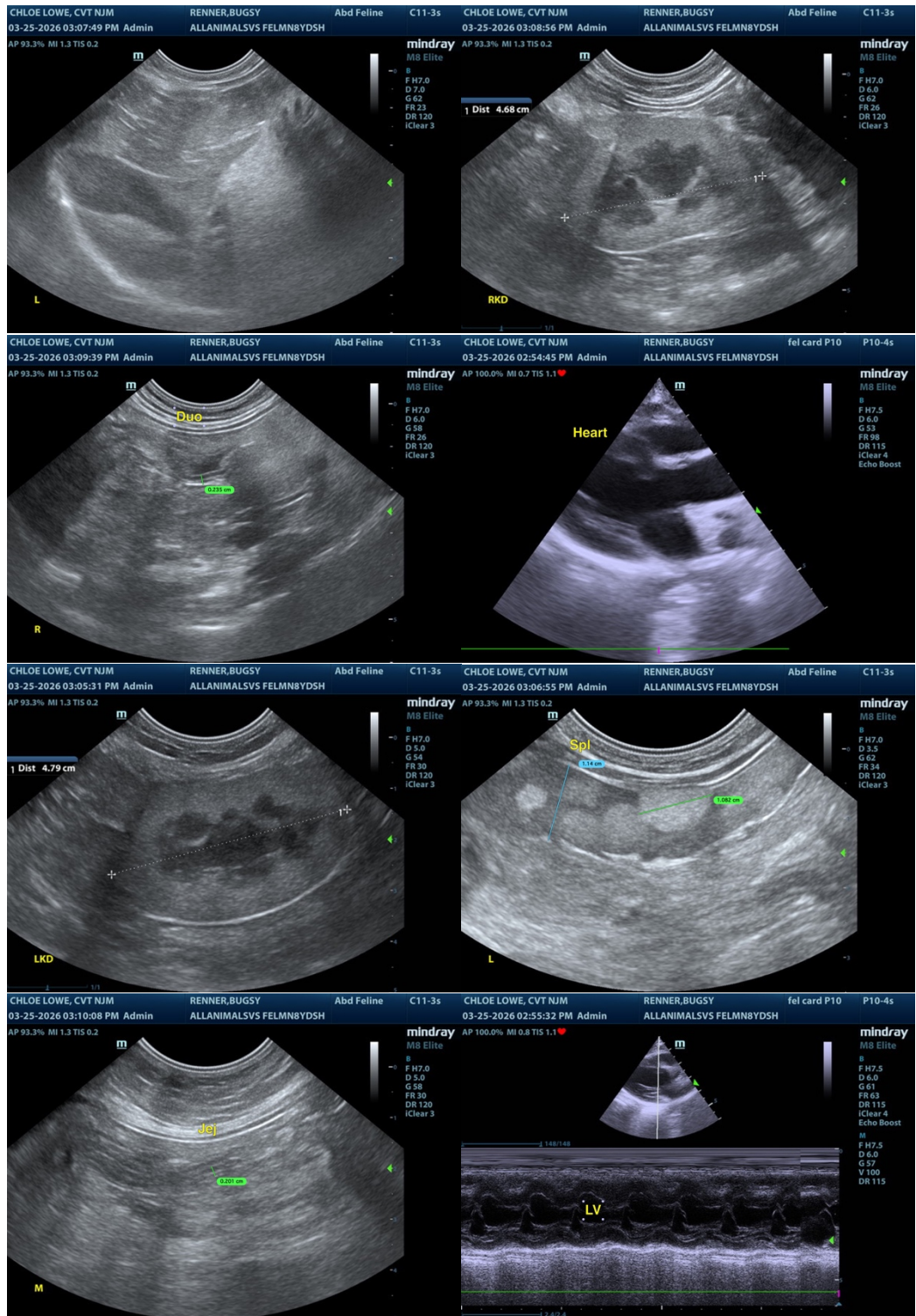
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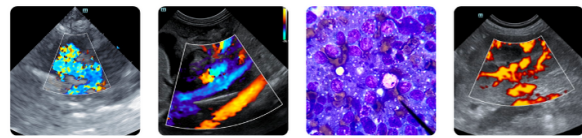
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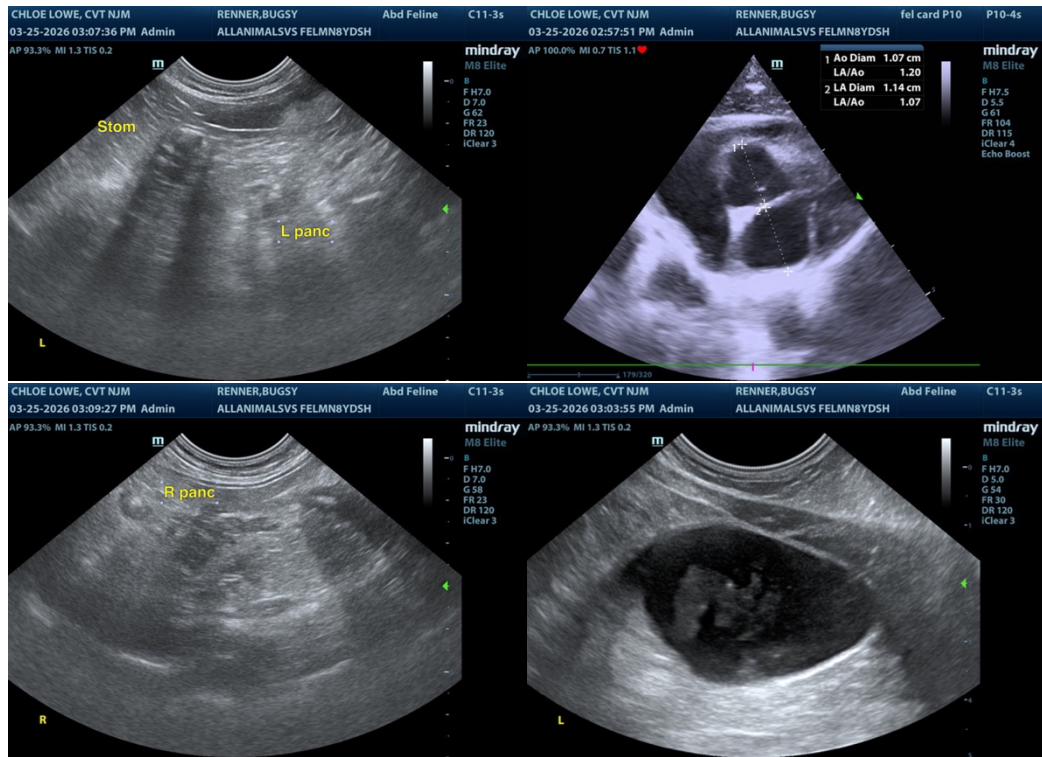
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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