



PATIENT

Fitz Cohen

SPECIES

Feline

BREED

DSH

SEX

Neutered Male

AGE

5 Years 5 Months

WEIGHT

9.7 pounds

INTERPRETED BY

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

IMAGING PERFORMED BY

Dr. Ken Leal

HOSPITAL NAME

Newton Veterinary
 Hospital

REFERRING VET

Dr. Hipkin

INVOICE

13942

DATE

02/24/26

PRESENTING CLINICAL SIGNS

- one week history of vomiting,
- > 8 % dehydrated
- icteric
- anorexic

Abnormal PE/Chem/CBC/UA Results: BUN - 89, creatinine - 3.8, phos - 9.8, TP - 10.1, Alb - 4.1, glob - 6, glu - 261, Chol - 294, ALT - 307, AlkPhos - 100, GGT - 24, T.bili - 7 Na - 138, K - 2.8, Cl - 63, fPLI - abnormal

ULTRASONOGRAPHIC EXAMINATION OF THE HEART & ABDOMEN

FELINE CARDIAC PARAMETERS	BODY WEIGHT (lbs)	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	9.7	NM	0.5	1.1	0.53	40	74
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	1.2		1.2	0.85	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.



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Urinary System

The urinary bladder, trigone, cystourethral junction, and visible pelvic urethra to a depth of 2.0 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.

The area of the aortic trifurcation was free of pathology.

The kidneys revealed adequate size and symmetrical margination. A normal 1:3 cortex / medulla ratio and mildly enhanced corticomedullary border demarcation were present. Mildly thickened hyperechoic cortex and adequate renal medullary volume. No evidence of pyelectasia. The left kidney measured 4.4 cm in length. The right kidney measured 4.3 cm in length.

Adrenal Glands

The left adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The left adrenal gland measured 0.45 cm width.

The right adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The right adrenal gland measured 0.52 cm width at the caudal pole.

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. The spleen measured 0.68 cm width level of the mid spleen.

Liver & Gallbladder

The liver revealed generalized hepatomegaly. 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.

The gallbladder was mildly distended in size with moderate primarily gravity dependent to congealed gallbladder debris. Normal gallbladder wall without evidence of wall edema. Diffusely to significantly distended to tortuous common bile duct extending from the gallbladder caudally approaching the level of the duodenum. The dilated common bile duct contained anechoic content with segmental to nonshadowing mucus. An indistinctly marginated nonhomogenous cystic mass is present in the area of the distal common bile duct and pancreas base/right pancreatic limb measuring approximately 3.5 cm to 4.0 cm in diameter.

Gastrointestinal

The stomach presented intact wall layering with a normal wall layer ratio. The lumen of the stomach contained mild retained anechoic fluid with no signs of ileus, obstruction or foreign material.

The visualized segments of 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



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material. The duodenum was indistinctly visualized, potentially owing to duodenal displacement, secondary to the nonhomogenous cystic mass.

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

Pancreas

The left pancreas was sonographically normal.

Free Abdomen

No visualized significant or swollen mid abdomen mesenteric lymphadenopathy or overt significant peritoneal effusion was present.

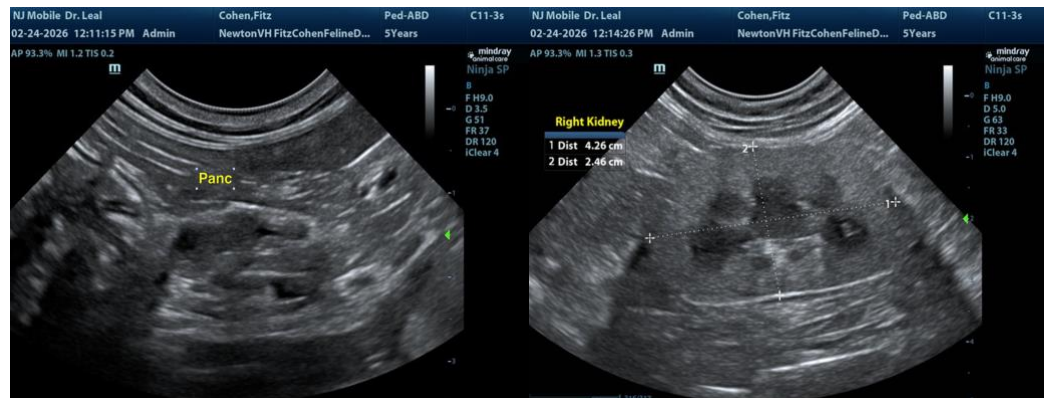
ULTRASONOGRAPHIC FINDINGS

- Hepatopathy.
- Distended gallbladder with nonorganized bile sediment.
- Diffusely to markedly distended common bile duct with moderate to significant mucoduct.
- Undifferentiated nonhomogenous cystic mass in the area of the distal common bile duct/right pancreas.
- Mild hypomotile stomach with sonographically unremarkable empty visible small intestine.
- Nonspecific nephropathy.
- Normal cardiac structure/function.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Post-hepatic obstructive criteria is met and secondary to undifferentiated non-homogenous cystic mass in the area of the distal common bile duct and pancreas which may indicate biliary or pancreatic origin with possible combination. Concurrent chronic or acute on chronic nephropathy is possible.

Correlation with full urinary workup including urinalysis +/- culture/sensitivity and UPC level for renal staging is suggested. Surgical exploration is indicated, however given the undifferentiated mass, abdominal CT would be ideal for further clarification and surgical planning. Three view chest radiographs are recommended if not done.





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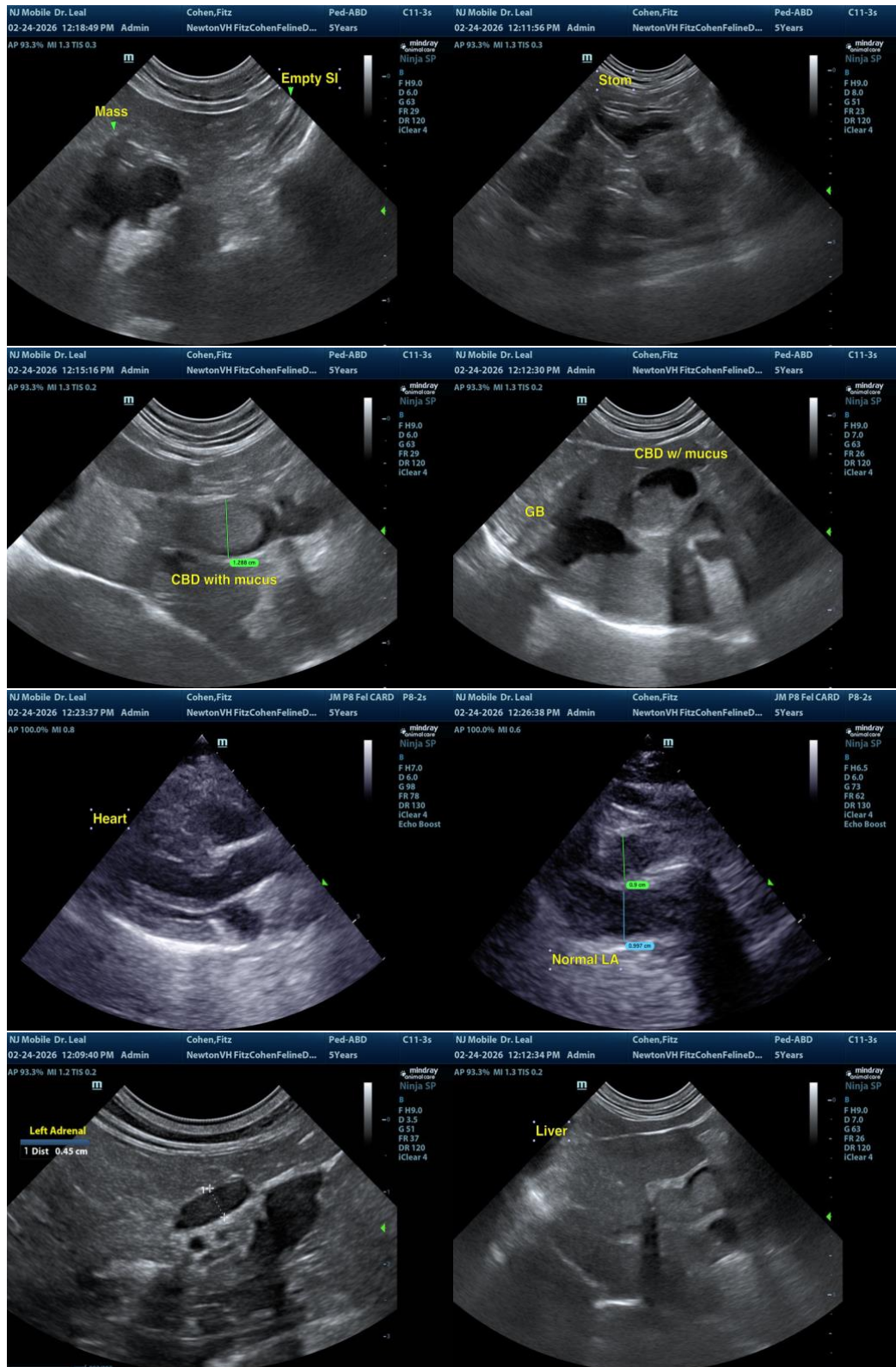
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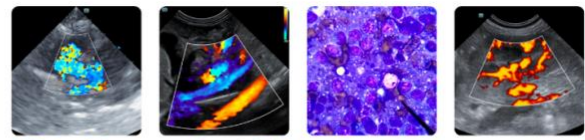
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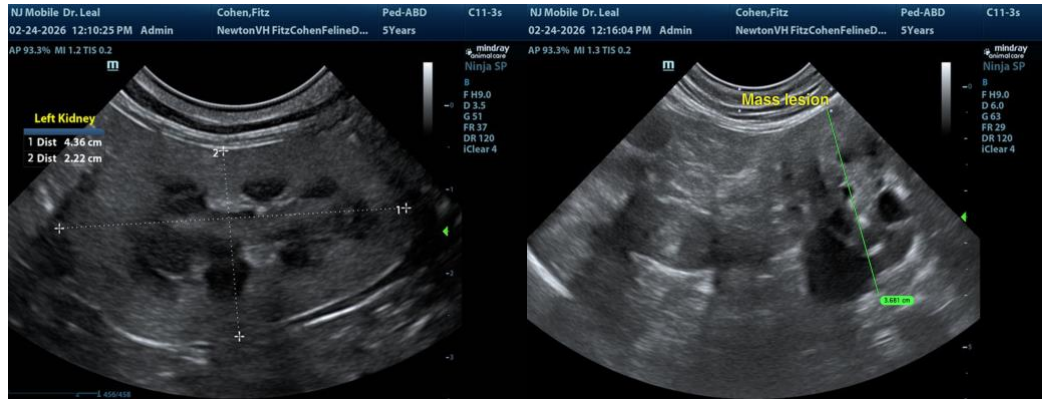
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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