PATIENT

Max Gnoy

SPECIES

Feline

BREED

DSH

SEX

NM

AGE

11 years 6 months

WEIGHT

16.6 lbs.

INTERPRETED BY

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

IMAGING PERFORMED BY

Rebecca Hamilton

HOSPITAL NAME

Martinsville VH

REFERRING VET

Dr. Shendell

INVOICE

10373

DATE

11/19/25

PRESENTING CLINICAL SIGNS

Routine 6 mo echo. Hx of Pulmonic stenosis.

Meds: 1/4 25 mg Atenolol SID

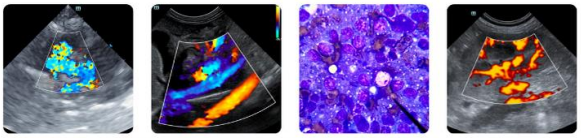
ULTRASONOGRAPHIC EXAMINATION OF THE HEART & ABDOMEN

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		NM	0.58	1.87	0.52	45	78
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		1.16	1.2		1.0	2.4	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** size and structure. Chamber volume and blood echogenicity were normal. The cranial and caudal **mitral** valve leaflets presented minor irregular age-related changes that are not clinically significant at this time with adequate extension in systole and union in diastole. No overt significant MR on Doppler. The **left ventricle** presented normal free wall and septal thicknesses with linear contour. The **myocardium** presented some echogenic remodeling consistent with expected age-related change. **Contractility** of the ventricular walls was adequate and in normal range for this breed and patient size. The **left ventricular outflow** tract demonstrated normal laminar flow with subjectively unremarkable structure. Subjective assessment of the **right atrium** and auricle revealed normal size, structure and content. No evidence of masses was noted. **Tricuspid** valvular assessment demonstrated expected findings for this age patient. No overt significant TR on Doppler. The **right ventricle** was of subjective normal size to borderline increased dimension compared to the LV with normal echogenicity and borderline prominent free wall thickness. **Pulmonic** tract assessment revealed atypical to thickened pulmonic valve, dynamic to turbulent outflow and increased post valvular pulmonary artery diameter (~1.5 cm). Elevated measured RV outflow velocity was noted. Minor pulmonic insufficiency was noted on Doppler. No visible **pericardial** or free pleural fluid was noted. The **mediastinum** was free of masses in the visible window. No evidence of obvious arrhythmia was noted.



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Urinary System

The urinary bladder, trigone, and cystourethral junction exhibited normal thickness and tone. Primarily anechoic urine was present in the lumen. Mild nondependent particulate 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.

No evidence of pathology in the area of the aortic trifurcation.

Both kidneys were mildly prominent in size, likely consistent with patient variant given the patient's body size. The kidneys exhibited a symmetrical contour with a 1:3 cortex/medulla ratio and mild hyperechoic renal cortex and enhanced corticomedullary border demarcation. The left kidney measured 5.1 cm in length. The right kidney measured 5.1 cm in length.

Adrenal Glands

The left and right adrenal glands were uniform in size and contour with a uniformly hypoechoic parenchyma. The left adrenal gland measured 0.44 cm width and the right adrenal gland measured 0.54 cm width.

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

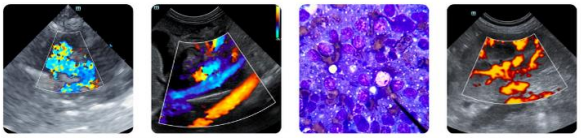
The liver was subjectively normal in size, structure, and contour. The liver parenchyma was mildly nonuniform and hypoechoic to the spleen with a moderate coarse echotexture and subjective mild to benign parenchymal remodeling. The hepatic and portal vasculature were normal in appearance without signs of congestion. A solitary, nonhomogeneous to cystic mid-liver intraparenchymal mass was present, measuring ~6.0 cm in diameter. 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 was empty without evidence of retained ingesta, fluid, or foreign material.

The small intestine presented intact, segmental mild thickened wall layering and mild altered wall layer ratio owing to propensity for mildly prominent to thickened muscularis layer. There is no evidence of loss of intestinal wall layering, masses, or mechanical / metabolic ileus to the level of the colon. The small Intestinal wall width measured 0.30 cm.

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



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Pancreas

The left pancreas was mildly prominent in size with mild capsule asymmetry and mild heterogeneous, remodeled parenchyma with mildly prominent left limb pancreatic duct.

Free Abdomen

No overt lymphadenopathy or peritoneal effusion was present.

ULTRASONOGRAPHIC FINDINGS

- Pulmonic stenosis - previous diagnosed
- Minor pulmonic valve insufficiency
- Normal LA / LV with mild myocardial remodeling
- Mild urine sediment
- Bilateral mild chronic renal changes
- Nonhomogeneous cystic liver mass - most consistent with biliary cyst adenoma
- Nonspecific intact mildly thickened segmental small intestinal wall
- Possible left limb chronic pancreatitis

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Similar cardiac presentation compared to the previous study, without overt evidence of significant progression and persistent right-sided compensation. Continued Atenolol at current dose with echocardiographic monitoring is indicated. Recheck echocardiogram is suggested in 6 months, sooner if clinically indicated.

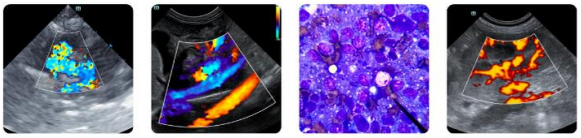
Given probable benign hepatic biliary cyst adenoma, sonographic monitoring for evidence of progression would be reasonable.

The mildly thickened small intestine is nonspecific, with possible patient variant, given no reported gastrointestinal signs. Potential for emerging enteropathy in conjunction with possible chronic pancreatitis is not excluded. Monitoring for arising gastrointestinal signs going forward is suggested.

Concurrent monitoring of the small intestine and pancreas is indicated if gastrointestinal signs arise, with consideration for spec fPL or a GI panel to include PLI/TLI/Cobalamin/Folate.

The urinary bladder sediment may suggest cellular / crystalline debris or mucus. Cystocentesis for UA +/- C/S if evidence of inflammatory cells is recommended.

New Jersey Mobile
FUELED BY SONOPATH VETERINARY ULTRASOUND



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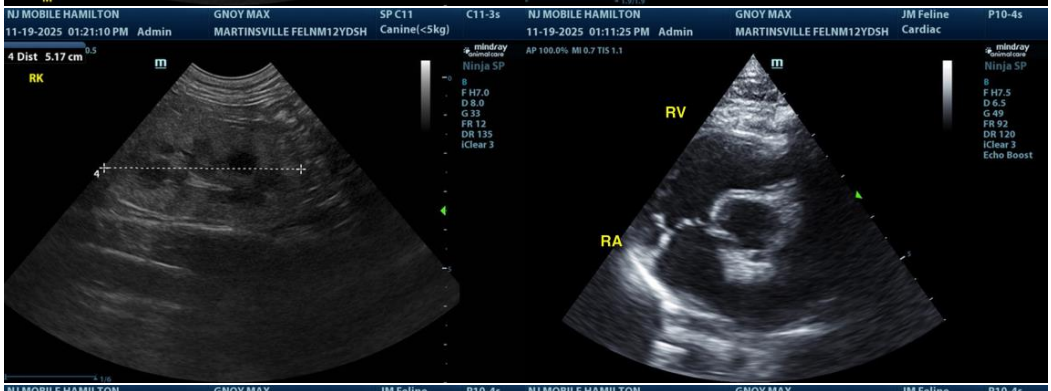

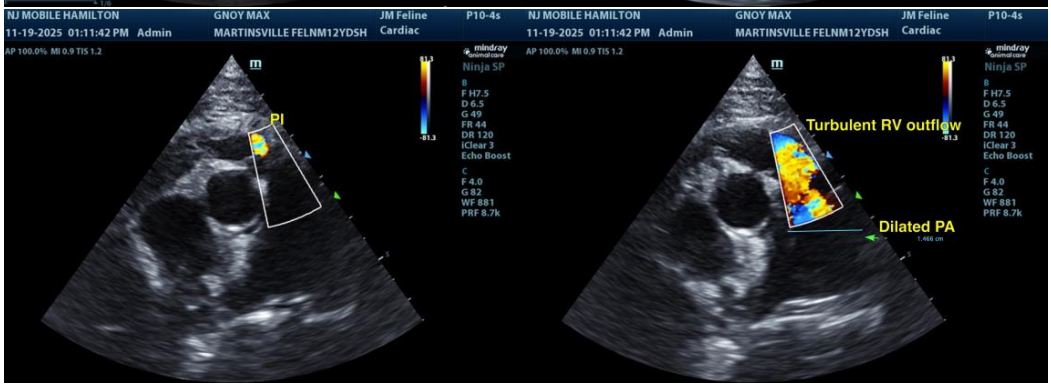

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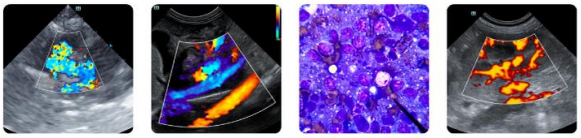

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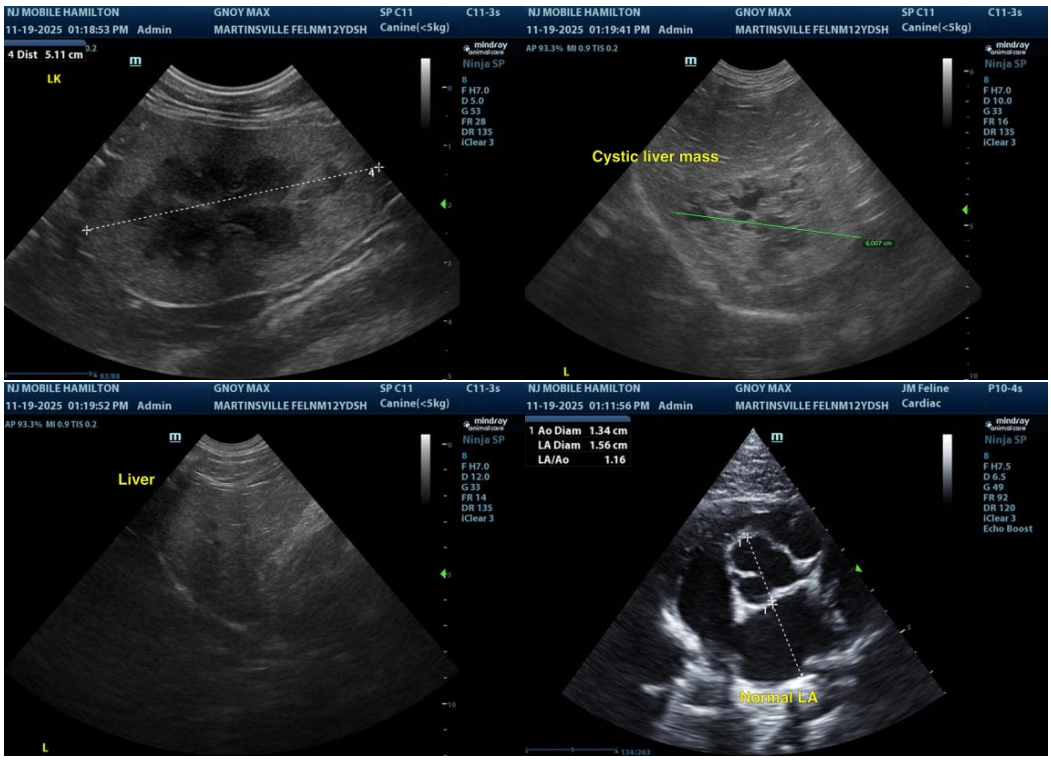

The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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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info@sonopath.com