**PATIENT**

Barbara Kelly

SPECIES

Feline

BREED

DSH

SEX

Spayed Female

AGE

16 Years

WEIGHT

9.3 Pounds

PRESENTING CLINICAL SIGNS

not eating well, was constipated last week and had an enema Current meds - Benazepril 2.5mg once daily (transdermal), Amlodipine 1.25mg once daily (transdermal). Just started laxatone and mirataz over the weekend

Abnormal PE/Chem/CBC/UA Results: Glu 245, Creat 2.5, ALT 149, K 2.6 Previous AUS on 2/15/21 uploaded

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		152	0.39	1.67	0.38	53.3	88.2
FELINE CARDIAC PARAMETERS	LA/AO (Boon)	LA/AO HEART BASE (Sisson)	LA 2D 4-chamber long axis AS to FW (Sisson) (cm)	LVOT VEL. (m/s)	RVOT VEL. (m/s)	IVRT (m/)	
NORMAL PARAMETER	<1.5	0.88-1.79	0.7-1.7	<1.6	<1.3	40-60	
PATIENT	--	1.1	1.27	1.0	0.8	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							

INTERPRETED BY

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

IMAGING PERFORMED BY

Sarah Pender, CVT

HOSPITAL NAME

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REFERRING VET

Dr. Hartmann

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DATE

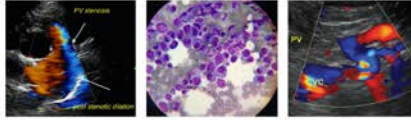
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Cardiac Presentation

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. Minor eccentric mitral insufficiency noted on color doppler assessment. The **left ventricle** presented normal free wall and septal thicknesses with mild alinear contour. Mild prominent papillary muscle was present in the left ventricle lumen. 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. Mild aortic valve insufficiency noted on color doppler assessment. 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. The **right ventricle** was of normal size (1/3 diameter of LV), echogenicity and thickness. **Pulmonic** tract assessment revealed normal valve structure, laminar flow, and diameter (approx. 1:1 pa/ao ratio). No dilation due to heartworm disease, cuor pulmonale, stenosis, or pulmonic hypertension was noted. No visible **pericardial** or free pleural fluid was noted. The **mediastinum** was free of masses in the visible window.

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 changes were noted.

**PATIENT**

The area of the aortic trifurcation was free of pathology.

Barbara Kelly

Normal size and margination were 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 3.6 cm. The right kidney measured 3.7 cm.

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Adrenal Glands**BREED**

DSH

The adrenal glands were uniform in size and contour with a uniformly hypoechoic parenchyma. No evidence of adrenal tumors or hyperplasia. The left adrenal gland measured 0.26 cm in width. The right adrenal gland measured 0.24 cm in width.

Spleen**SEX**

Spayed Female

The spleen was normal in size and contour with primarily finely textured homogeneous parenchyma. Static previously noted hyperechoic nodule was present in the mid spleen, measuring 0.35 cm in diameter.

Liver**AGE**

16 Years

The liver was normal in size and contour with generalized normal hepatic parenchyma echogenicity with mild to moderate coarse echotexture. Intermittent previously noted static discreet parenchymal nodules were present. Example of liver nodule measured 0.5 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.

WEIGHT

9.3 Pounds

Gastrointestinal**INTERPRETED BY**

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

The gastric fundus and body exhibited intact and sonographically unremarkable wall layering. Static mild pyloric mural hypertrophy was present, primarily owing to prominent pyloric muscularis layer. Intact wall layering was maintained in the pylorus. No evidence of progressive pyloric thickening. Pylorus wall measured 0.35 cm in width. The stomach was empty without evidence of retained ingesta, fluid or foreign material.

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Sarah Pender, CVT

The small intestine presented intact wall layering with primarily 1:3 muscularis/mucosa ratio with segmental propensity for mildly prominent muscularis, yet no evidence of small intestinal mural hypertrophy. The lumen of the small intestine was empty with no signs of ileus, obstruction or foreign material. Jejunum wall measured 0.25 cm. Ileocolic wall measured 0.3 cm.

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

Pancreas**REFERRING VET**

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The parenchyma of the left limb, body and right limb of the pancreas presented isoechoic to the adjacent omental fat. A normal curvilinear capsule contour of the pancreas was present. The visible pancreatic duct was normal. No signs of active inflammation or neoplastic disease was evident.

Free Abdomen**INVOICE**

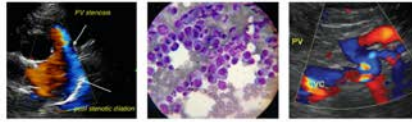
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No omental masses, lymphadenopathy or effusion.

ULTRASONOGRAPHIC FINDINGS**DATE**

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- Overly normal cardiac structure and function with mild LV myocardial remodeling
- Minor mitral valve and aortic valve insufficiency
- Mild chronic renal changes



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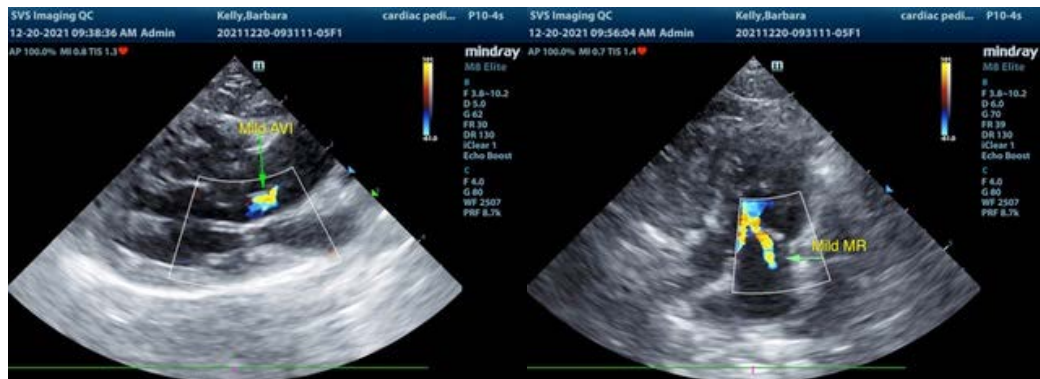
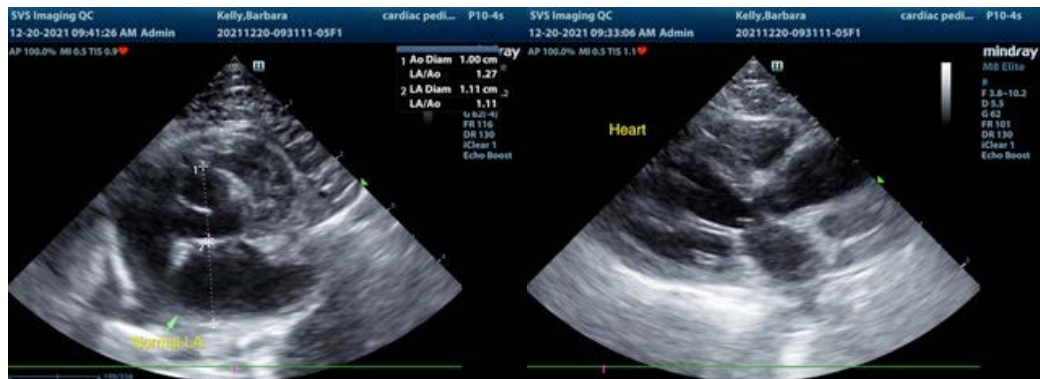
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- Static mildly prominent pylorus walls, possible mild inflammatory enteropathy
- Overtly normal colon
- Normal bilateral adrenal glands – no evidence of adrenal neoplasia.
- Static hyperechoic splenic nodule
- Low-grade hepatopathy with intermittent static discreet hypoechoic parenchymal nodules

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

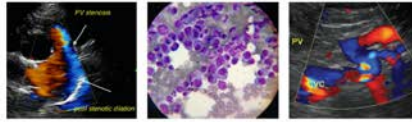
If a murmur is present in this patient, a physiologic or flow murmur is suspected, potentially owing to subtle turbulent left ventricular outflow. The minor mitral and aortic valve insufficiencies are not likely audible, and are not considered hemodynamically significant. Given the normal left atrial size, the risk for complication is low. No indication for cardiac medications at this time. Although not definitive given the lack of reported weight loss or gastrointestinal signs (aside from decreased appetite), the small intestine exhibited subtle mural changes, which may potentially indicate low-grade inflammatory enteropathy or gastroenteropathy.

Likewise, the possibility of low-grade to chronic pancreatitis may be present, yet ultrasonographically normal. Further assessment may include GI panel to include PLI, TLI, cobalamin and folate. Further renal staging to include urine C/S and protein: creatinine ratio on sterile urine sample may be considered.



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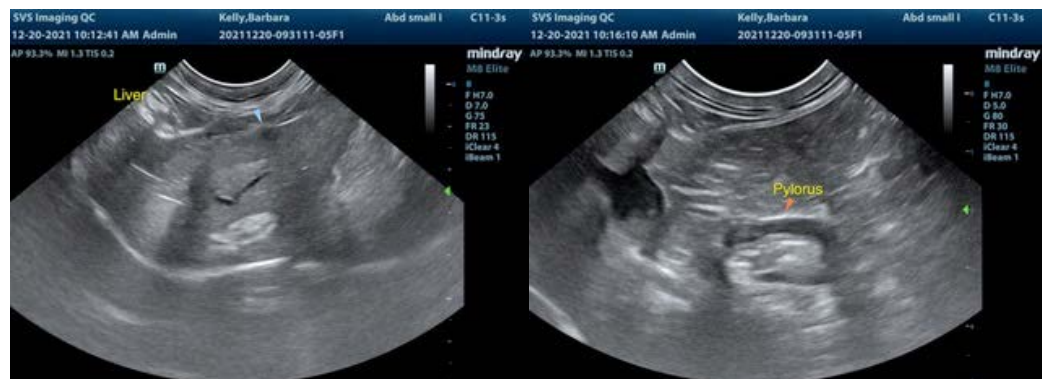
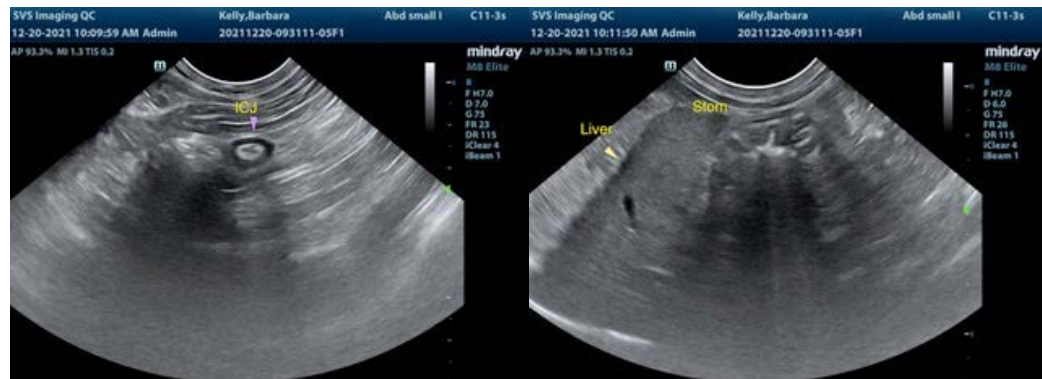
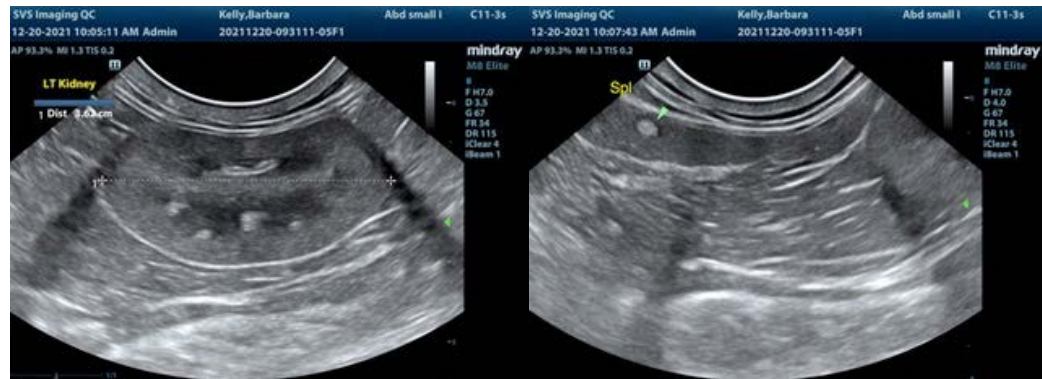
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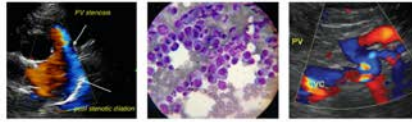
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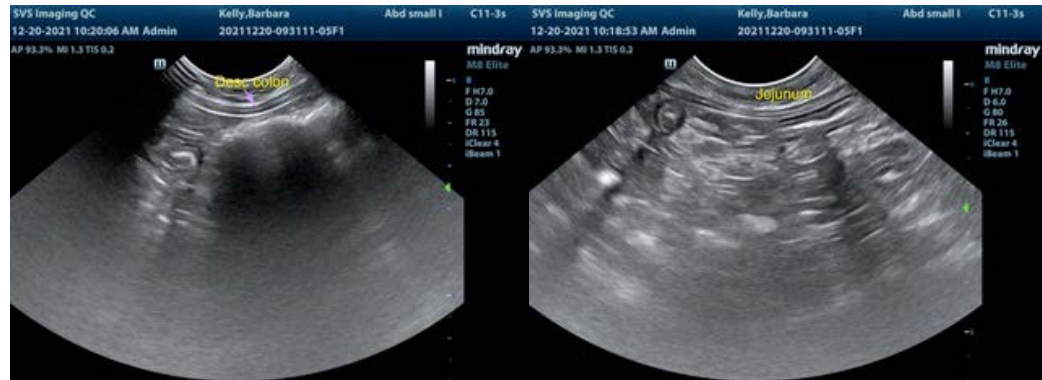
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The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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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