



PATIENT

Marley Ziegenfuss

SPECIES

Feline

BREED

DMH

SEX

Neutered Male

AGE

10 years

WEIGHT

11.6 lbs.

INTERPRETED BY

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

IMAGING PERFORMED BY

Jessica Miller

HOSPITAL NAME

Newton VH

REFERRING VET

Dr. Kim

INVOICE

12303

DATE

9/27/21

PRESENTING CLINICAL SIGNS

-Anorexia / lethargy / change in behavior since Friday. Hx of asthma, allergies. Vomits on and off (chronic) No current meds, got convenia inj. today

Abnormal PE/Chem/CBC/UA Results: Neut 55.6, mono 1.44, TP 9.1, Globulins 6.1, Glucose 200, Chol 203, FELV/FIV neg

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		168	0.44	1.21	0.42	50.4	85.4
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	1.48	1.53	1.3	1.0	0.7	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 System

The echocardiogram in this patient demonstrated normal **left atrial** size based on 3 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

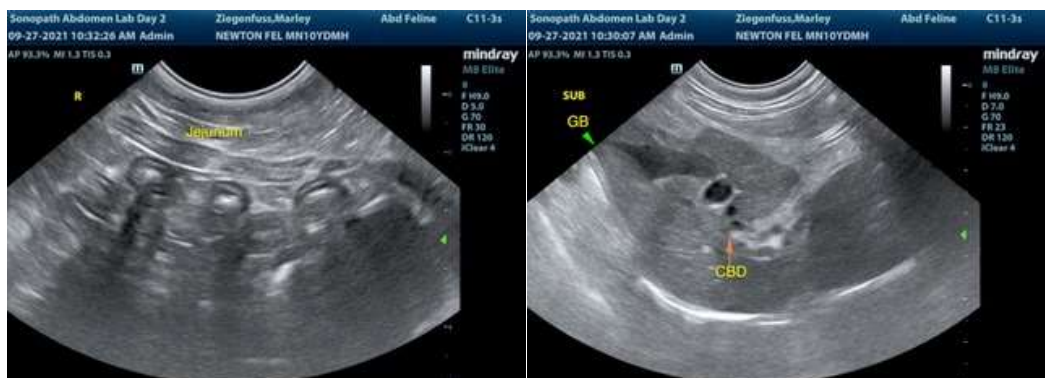
The urinary bladder, trigone, cystourethral junction, and visible pelvic urethra to a depth of 2.0 cm exhibited normal thickness and tone. Primarily anechoic urine was present in the lumen. Moderate, nondependent, particulate sediment was present without evidence of calculus formation. The ureteral

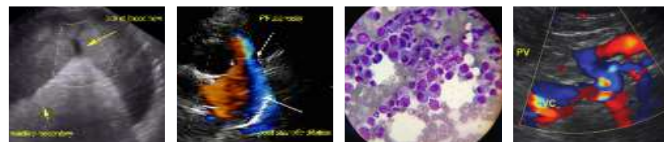


PATIENT	papillae were normal. The ureters were not visible which is normal. No evidence of inflammatory or neoplastic mural changes were noted.
Marley Ziegenfuss	
SPECIES	The area of the aortic trifurcation was free of pathology.
Feline	Both kidneys were normal to mildly prominent in size. Both kidneys exhibited symmetrical renal margination. Subtle uniform cortical hypertrophy and nonspecific subtle medullary rim sign. This is a nonspecific finding seen in both normal and abnormal kidneys. It may be associated interstitial renal disease, hypercalcemia, tubular necrosis, lymphoma, and FIP. However, it is a nonspecific finding. The left kidney measured 4.5 cm in length. The right kidney measured 4.7 cm in length.
BREED	
DMH	
SEX	Adrenal Glands
Neutered Male	The left adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The left adrenal gland measured 0.36 cm width. The right adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The right adrenal gland measured 0.40 cm width.
AGE	Spleen
10 years	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 0.79 cm in width.
WEIGHT	Liver/ Gallbladder
11.6 lbs.	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 minor, echogenic, nonmineralized biliary sludge. The proximal common bile duct was mildly dilated and tortuous without overt post hepatic obstruction. The common bile duct measured 0.25 cm diameter.
INTERPRETED BY	Gastrointestinal
R. McKenzie Daniel, DVM, DABVP (Canine and Feline)	The stomach presented intact wall layering with a normal wall layer ratio. The stomach contained a mild amount of retained anechoic fluid. No evidence of retained ingesta or foreign material was noted. The gastric body wall width measured 0.27 cm.
IMAGING PERFORMED BY	
Jessica Miller	
HOSPITAL NAME	
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Dr. Kim	The small intestine exhibited intact wall layering and maintained a 1:3 muscularis/mucosa ratio with mild generalized duodenal, as well as segmental, jejunal ileus. No evidence of mechanical obstruction was noted. The duodenum wall width measured 0.30 cm. The jejunum wall width measured 0.25 cm. The ileocolic wall width measured 0.31 cm.
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12303	Normal visible colon wall layers were present with apparent formed feces in lumen.
DATE	Pancreas
9/27/21	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



PATIENT	pancreatic duct was normal. No signs of active inflammation or neoplastic disease were evident. Potential for low-grade or chronic pancreatitis may be present yet ultrasonographically normal.
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SPECIES	Free Abdomen
Feline	No overt lymphadenopathy or peritoneal effusion was present.
BREED	ULTRASONOGRAPHIC FINDINGS
DMH	Primary Findings
SEX	<ul style="list-style-type: none"> • Normal echocardiogram • Urinary bladder sediment • Bilateral nonspecific mild renal medullary rim sign • Gastroenteritis pattern with mild gastric and duodenal stasis, possible acute Inflammatory bowel episode • Mild gallbladder debris with minor nonobstructive proximal common bile duct dilation
Neutered Male	
AGE	
10 years	
WEIGHT	INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS
11.6 lbs.	The urinary bladder sediment may suggest cellular / crystalline debris or mucus. Cystocentesis for UA +/- C/S if evidence of inflammatory cells is recommended.
INTERPRETED BY	The proximal common bile duct dilation, as well as the presence of minor gallbladder debris, is nonspecific and may be indicative of age-related common bile duct changes or gallbladder debris secondary to fasting. The potential for mild hepatobiliary inflammation may be considered if previous or future hepatic enzyme elevations.
R. McKenzie Daniel, DVM, DABVP (Canine and Feline)	Potential for more chronic gastroenteropathy such as structurally insignificant inflammatory bowel disease or less likely occult or early neoplastic infiltrative gastroenteropathy is possible given the chronic nature of the patient's vomiting.
IMAGING PERFORMED BY	HOSPITAL NAME
Jessica Miller	Newton VH
REFERRING VET	Supportive care for gastroenteritis / inflammatory bowel episode would be appropriate. Further assessment may include a GI panel to include PLI/TLI/Cobalamin/Folate.
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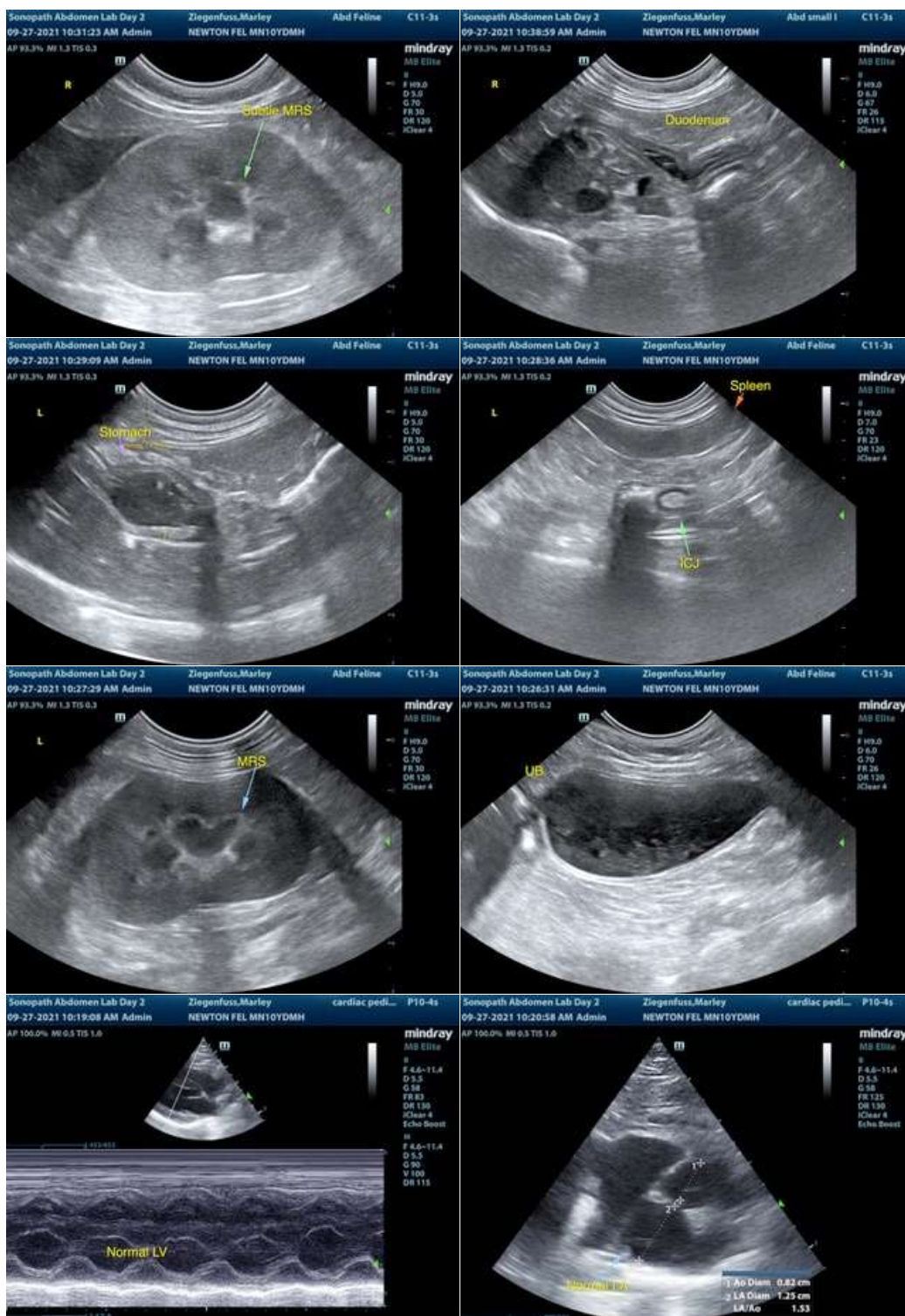
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The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.



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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

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