



PATIENT PRESENTING CLINICAL SIGNS

Ink Ryder History: Poor appetite, anorexia, perfuse liquid hemorrhagic fluid rectally
Abnormal PE/Chem/CBC/UA Results: bw on 12/27 at VEG = WNL

SPECIES ULTRASONOGRAPHIC EXAMINATION OF THE HEART & ABDOMEN

Feline

BREED

DSH

SEX

Spayed Female

AGE

6 Years

WEIGHT

6.6 Pounds

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	--	170	0.46	1.45	0.46	45	80
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	1.4	1.4	1.3	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							

Cardiac Presentation

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. 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. Aortic trifurcation was normal.

Normal size and margination were present in the kidneys. A normal 1:3 cortex / medulla ratio and normal corticomedullary definition were maintained. The echogenicity of the cortex was similar to or slightly

INTERPRETED BY

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

IMAGING PERFORMED BY

Val Shumskaya

HOSPITAL NAME

Marsh AH

REFERRING VET

Dr. Milwicki

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PATIENT less than normal liver parenchyma while the medulla echogenicity was hypoechoic to the cortex with no evidence of pelvic dilation. The left kidney measured 3.4 cm in length. The right kidney measured 3.5 cm in length.

Ink Ryder

SPECIES

Adrenal Glands

No overt pathology in the area of the left or right adrenal glands.

Feline

Spleen

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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 0.85 cm in width at the level of the hilus.

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Liver

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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.

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The gallbladder was non-distended with primarily anechoic content with mild nonorganized echogenic debris without evidence of gallbladder or peripheral gallbladder inflammation. The cystic and common bile ducts were normal.

6.6 Pounds

Gastrointestinal

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The stomach presented intact wall layering with a normal wall layer ratio. The lumen of the stomach was empty without gastric distention secondary to retained ingesta, fluid or foreign material. The gastric body wall measured 0.26 cm.

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(Canine and Feline)

The 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 material. The duodenum wall measured 0.24 cm. The jejunum wall measured 0.23 cm. The ileocolic wall measured 0.40 cm.

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The colon walls presented intact yet mild to moderate prominent wall layering with mild thickened to echogenic submucosa. The colon was primarily empty with mild non-formed fecal matter and luminal gas. The descending colon wall measured 0.30 cm wall width.

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Pancreas

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The left limb, right limb, and base of the pancreas presented hypoechoic to heterogeneous echogenicity compared to adjacent omental fat. Mild asymmetrical capsule margination was present with mild variable parenchymal swelling and mild peripancreatic reactivity / inflammation. No overt evidence of neoplasia.

Dr. Milwicki

Free Abdomen

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Focal to intermittent, mildly prominent to enlarged mesenteric lymph nodes were present. The lymph nodes were essentially isoechoic to adjacent omentum without evidence of peripheral inflammation and maintaining a normal width: length ratio (<0.5). An example of lymph node measured 1.4 cm x 0.31 cm.

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No omental masses or evidence of peritoneal free fluid.

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ULTRASONOGRAPHIC FINDINGS



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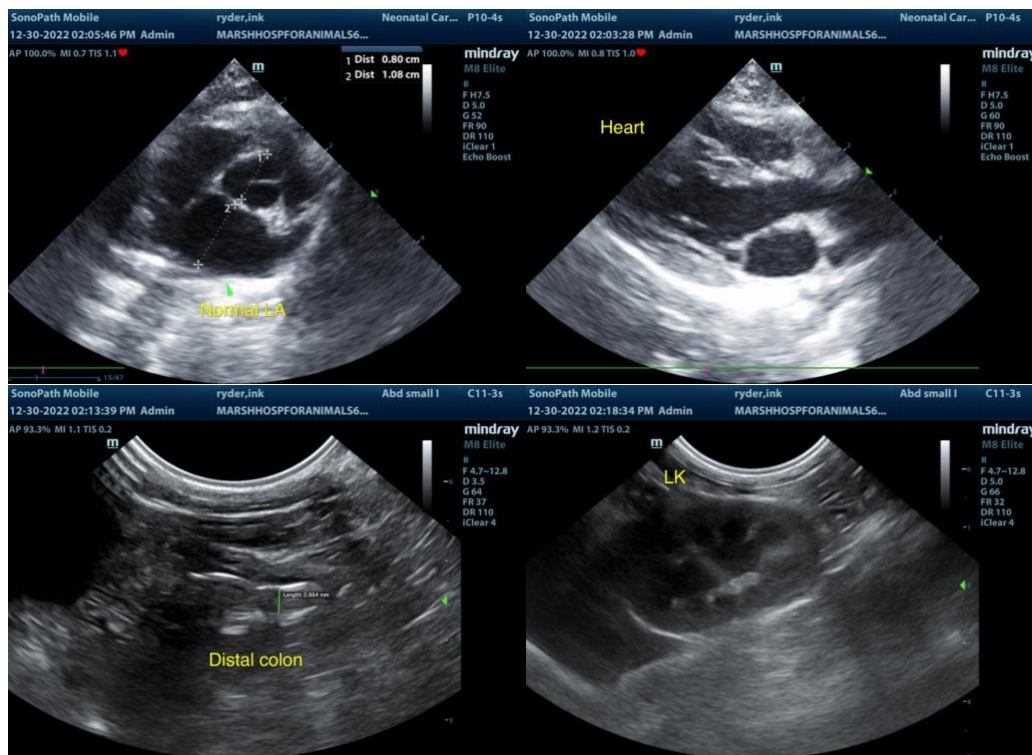
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- Normal echocardiogram
- Acute colitis pattern with suspected mild concurrent enteritis
- Mild pancreatitis
- Mild gallbladder debris- likely incidental given no evidence of cholestasis, likely secondary to fasting/anorexia

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Assessment for evidence of cranial abdominal or subxiphoid discomfort on palpation in the area of the pancreas is suggested. Further assessment may include a GI panel to include PLI/TLI/Cobalamin/Folate, as well as diarrhea PCR. Empirically, as needed. Gastrointestinal support, empirical therapy for acute colitis, which may include dietary therapy, empirical cobalamin supplementation pending assessment of cobalamin levels and empirical deworming. Dietary therapy may include hydrolyzed or possible higher fiber diet, depending upon clinical impression of the diarrhea. Dietary intolerance/food allergy, acute enterocolic insult, infectious disease, or less likely infiltrative neoplasia are all potentials. Appropriate antibiotic therapy is likely indicated given the hemorrhagic non-formed stool.





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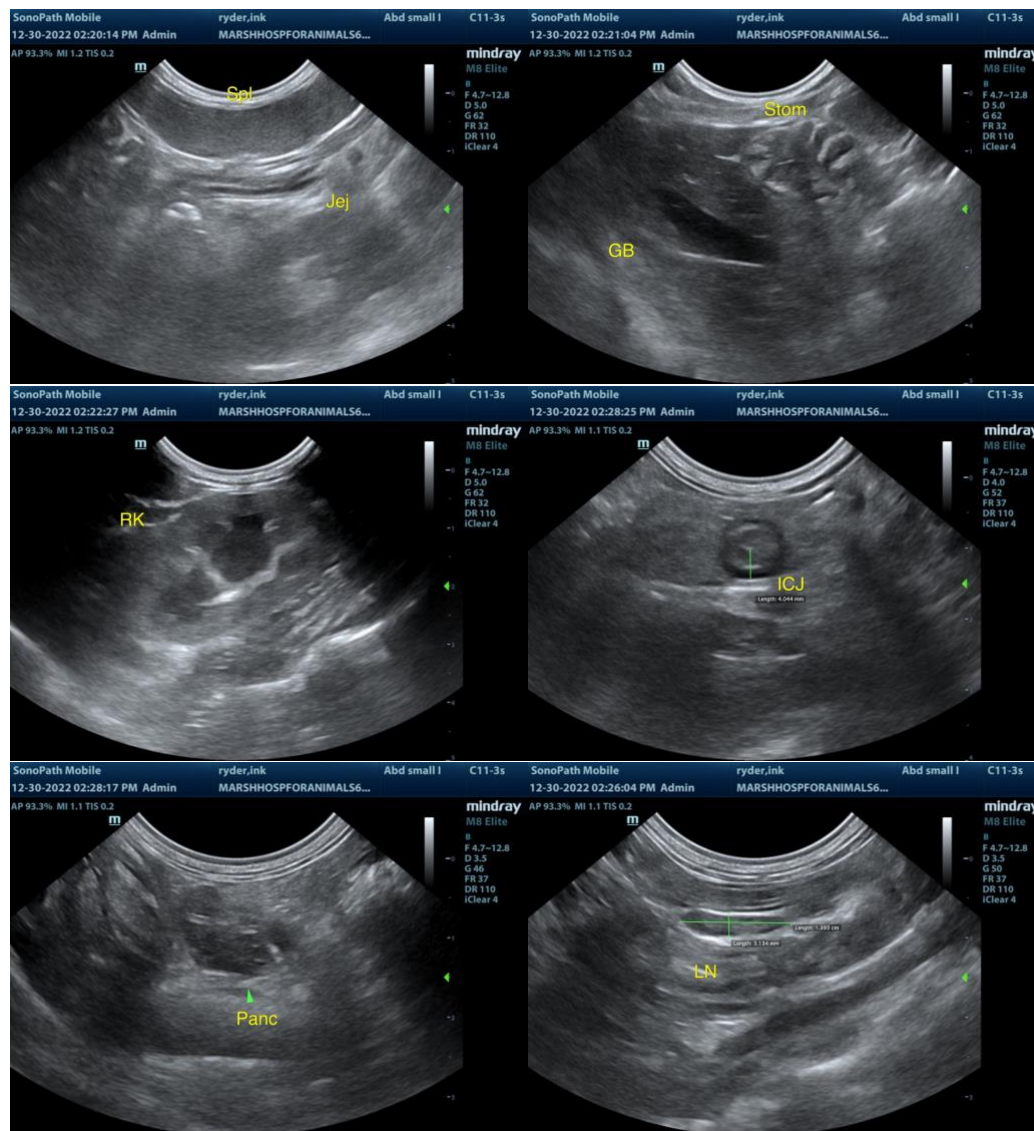
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The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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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