


PATIENT

Charlie Peterson

PRESENTING CLINICAL SIGNS

wt loss, recurring hyporexia and bloody diarrhea. On metro/amoxi, cerenia, pepcid.

SPECIES

Canine

 Abnormal PE/Chem/CBC/UA Results: ALB 2.3, TP 5.0, WBC 26,000, neuts 23,000. HCT 63%.
 USPG 1.028. Urine prot trace increase.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN AND HEART

BREED	CANINE CARDIAC PARAMETERS	MR VMAX (m/s)	TR VMAX (m/s)	LA/AO (Boon method)	LA/AO (Heart Base; Swe)	FS (%)	EF (%)	EPSS (cm)
Chihuahua								
SEX	NORMAL PARAMETER	4.5-5.5	<2.7	1.3	<1.3	28-40	40-100	<0.6
MN	PATIENT	5.3	2.8 max	1.2	1.2	47.2	81.8	0.15
AGE	CANINE CARDIAC PARAMETERS	HR (BPM)	AV VMAX (m/s)	PV MAX (m/s)	BODY WEIGHT (kg)	LA 2D short axis Base view (cm)	LVIDd Avg; 2D and m-mode short axis (cm)	LVIDs Avg; 2D and m-mode short axis (cm)
10yr								
WEIGHT	NORMAL PARAMETER	50-100	0.7-1.7	0.7-1.6				
6.8lb	PATIENT	126	1.0	0.7		1.6	1.6	

INTERPRETED BY

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

IMAGING PERFORMED BY

Diane McFadden

HOSPITAL NAME

Basking Ridge AH

REFERRING VET

NA

Cardiac Presentation

The echocardiogram in this patient demonstrated normal left atrial size based on 3 different LA measurement methods. Chamber volumes and echogenicity were normal. The cranial and caudal mitral valve leaflets presented mild thickening consistent with endocardiosis. Doppler indicated measurable mild eccentric insufficiency. The left ventricle presented 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 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. Mild TR on Doppler. 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. No echographically detectable evidence of infiltrative disease was visible. 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 1 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.

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PATIENT	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 mild loss of corticomedullary symmetry and definition expected for the age of the patient. No evidence of pelvic dilation was present. The left kidney measured 3.0 cm in length. The right kidney measured 3.4 cm in length.
Charlie Peterson	
SPECIES	
Canine	The area of the aortic trifurcation was free of pathology. The area of the residual prostate appeared normal and free of pathology.
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Chihuahua	
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Adrenal Glands

The left adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The left adrenal gland measured 0.40 cm width at the caudal pole and 1.4 cm length. The right adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The right adrenal gland measured 0.31 cm width at the caudal pole and 1.8 cm length.

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 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 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 with mild luminal gas and no signs of ileus, obstruction or foreign material.

The small intestine presented generalized intact wall layering. Mildly prominent duodenal wall layering with subtle duodenal corrugation was present. Mildly prominent to irregular mildly hyperechoic submucosa layer with intermittent discrete hyperechoic duodenojejunal mucosal speckling was present. The lumen of the small intestine was empty with no signs of ileus, obstruction or foreign material. No loss of wall layering or intestinal masses.

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

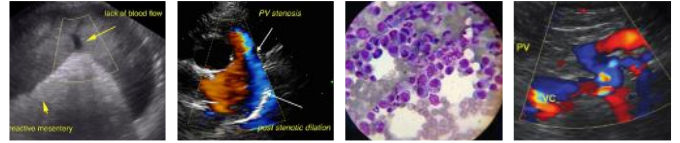
Pancreas

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

No omental masses, overt lymphadenopathy or peritoneal effusion was present. Segmental to mild generalized increased omental echogenicity was present.

ULTRASONOGRAPHIC FINDINGS



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- Non-specific chronic renal changes.
- Inflammatory enteropathy pattern with suspect mild to moderate duodenitis.
- Sonographically unremarkable colon containing semi-formed feces.
- Overtly normal pancreas.
- Mild chronic mitral valve disease (ACVIM B1), normal LA/LV.
- TR-no evidence of clinical pulmonary hypertension.

SPECIES

Canine

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

BREED

Chihuahua

The appearance of the GI tract is suggestive of inflammatory criteria with additional contributing factors including dietary intolerance / food hypersensitivity, occult parasitism, occult Addison's disease, low grade to chronic pancreatitis which may appear sonographically normal or infiltrative neoplastic criteria (thought less likely) possible. A GI panel to include PLI/TLI/Cobalamin/Folate is recommended. Although considered less likely considering normal adrenal presentation, a resting cortisol level to rule out occult Addison's disease is recommended.

SEX

MN

In addition to current GI therapy, a limited antigen or hydrolyzed diet trial with potential long term dietary therapy, prophylactic deworming (Panacur 50 mg/kg SID x 5 consecutive days with repeat protocol in 3 weeks even if fecal testing is negative), high colony count probiotic (Provable or Visbiome), and as needed GI support pending additional diagnostics with assessment of clinical response may prove beneficial. Gastroenterocolic biopsies are likely required for a definitive diagnosis if GI signs continue despite empirical therapy.

AGE

10yr

WEIGHT

6.8lb

A baseline protein: creatinine ratio on sterile urine sample is suggested.

INTERPRETED BY

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(Canine and Feline)

The lack of left atrial enlargement implies that the risk of complication secondary to mitral valve insufficiency is relatively low at this time and, without current clinical signs, indicates that medical therapy is not required at this stage. Prognosis at this stage is variable and serial sonographic monitoring is recommended with a recheck echocardiogram in 6-8 months, sooner if clinical signs suggestive of heart disease develop.

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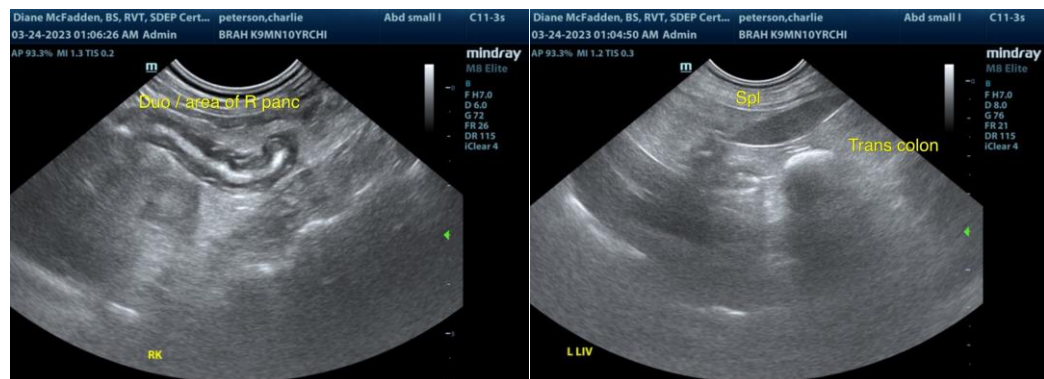
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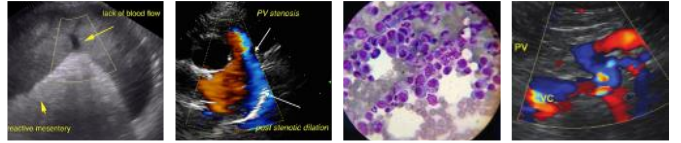
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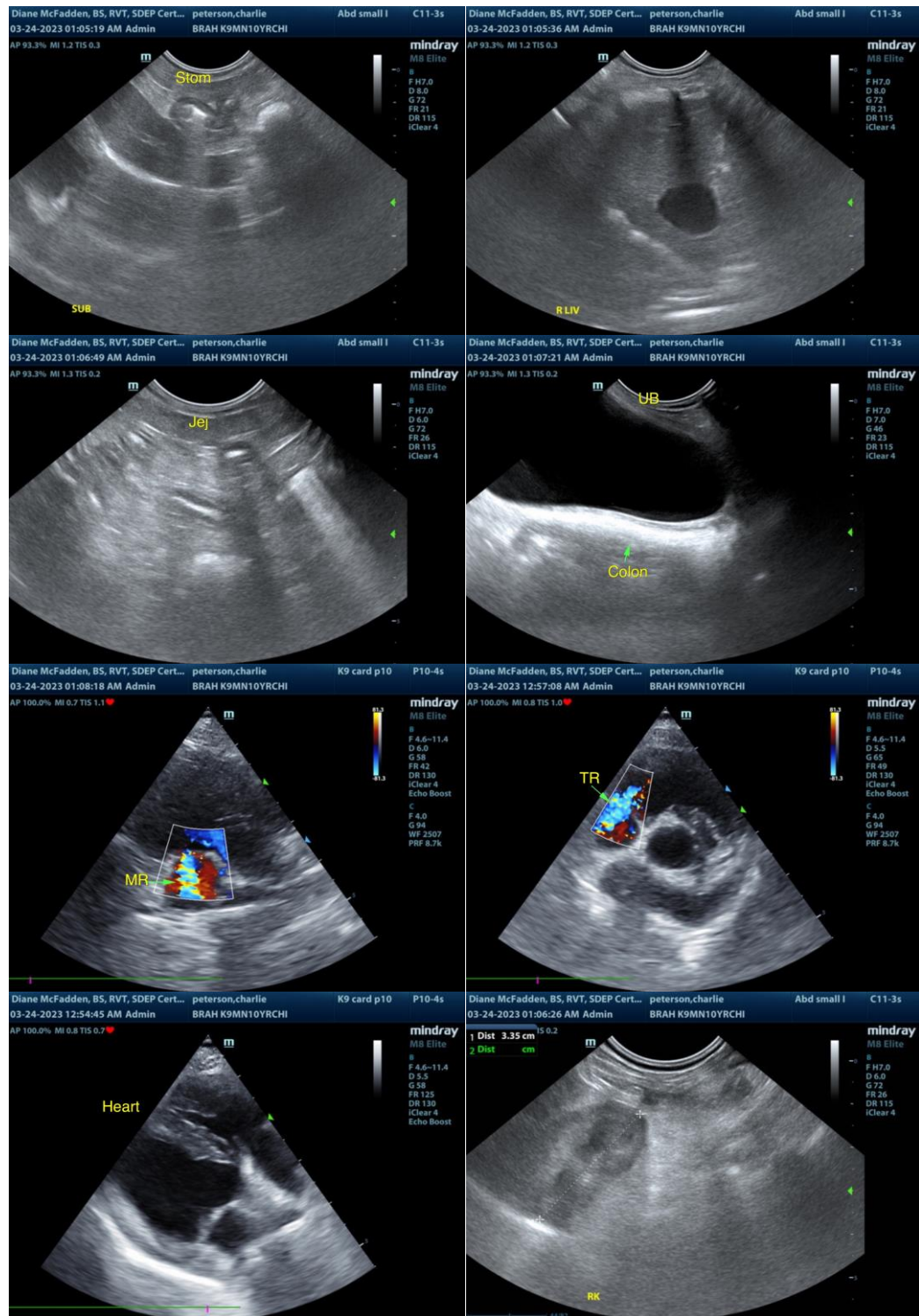
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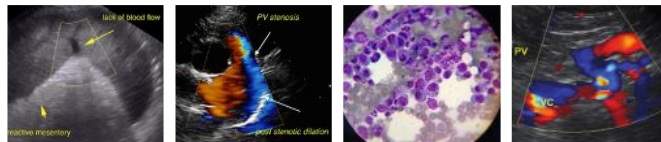
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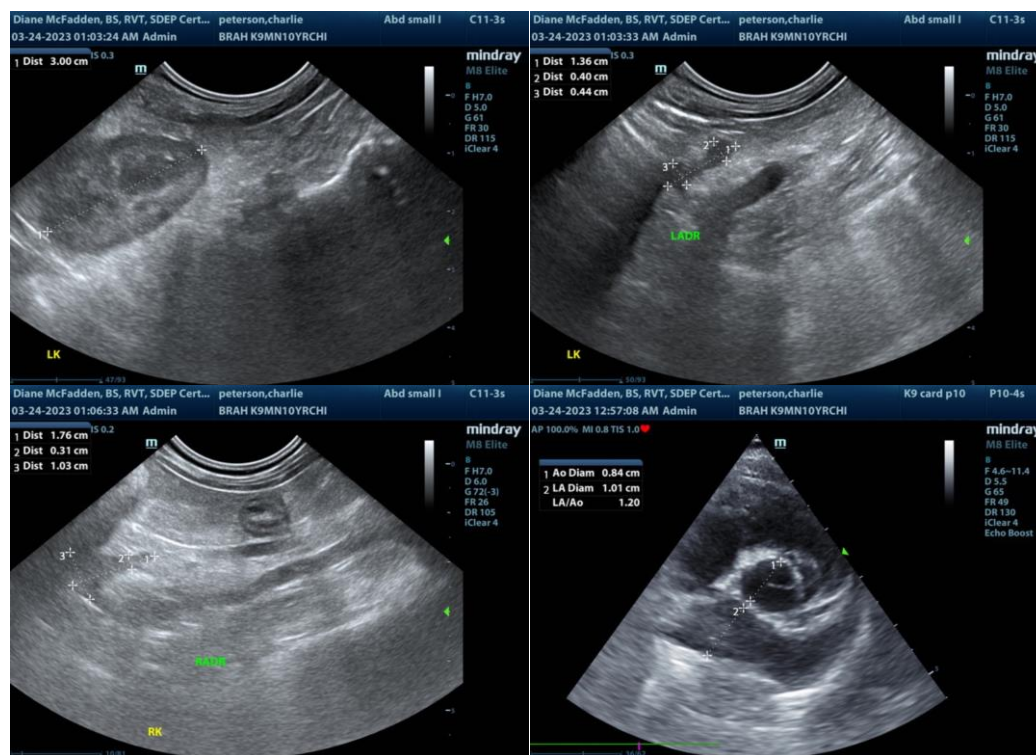
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

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