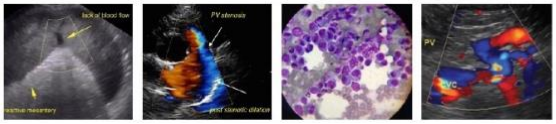
SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™
1-800-838-4268 info@sonopath.com SonoPath.com



THE FOCAL ZONE
IMAGING PERFORMED BY
289-808-2608 info@thefocalzone.com

PATIENT

Emmah-Lu Reese

SPECIES

Canine

BREED

Labrador Retriever

SEX

Spayed Female

AGE

9 years

WEIGHT

41 kg

INTERPRETED BY

R. McKenzie Daniel, DVM, DABVP

IMAGING PERFORMED BY

Crystal Hill

HOSPITAL NAME

Chippaw AH

REFERRING VET

Dr. Dowell

INVOICE

13852

DATE

10/18/21

PRESENTING CLINICAL SIGNS

Intermittent vomiting and occasional diarrhea. Has been eating grass. Sometimes vomits undigested food. Still has an appetite. Rads showed elongated spleen. Had previous cruciate repair. On joint supplements and previously Metacam. Sometimes Trazodone for anxiety.

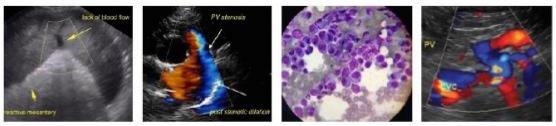
Abnormal PE/Chem/CBC/UA Results: Dark urine, Protein 1+, RBCs 20-30/hpf. Blood showed decreased Retics/HGB, decreased RBC, Hematocrit, Hemoglobin and T/ protein.

ULTRASONOGRAPHIC EXAMINATION OF THE HEART & ABDOMEN

CANINE CARDIAC PARAMETERS	**MR VMAX** (m/s)	**TR VMAX** (m/s)	**LA/AO** (Boon method)	**LA/AO** (Heart Base; Swe)	**FS** (%)	**EF** (%)	**EPSS** (cm)
NORMAL PARAMETER	4.5-5.5	<2.7	1.3	<1.6	28-40	40-100	<0.6
PATIENT	--	--	NM	1.0	42.2	76.6	0.35
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)
NORMAL PARAMETER	50-100	0.7-1.7	0.7-1.6	BELOW	BELOW	BELOW	BELOW
PATIENT	NM	1.6	1.4	--	4.1	4.5	--

Cardiac Presentation

The echocardiogram in this patient demonstrated normal **left atrial** size based on 3 separate methods of LA evaluation. The cranial and caudal **mitral** valve leaflets presented normal linear structure, extension in systole, and union in diastole with normal kinesis. Color doppler assessment of the mitral valve revealed minor primarily centralized 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. **Tricuspid** valvular assessment demonstrated adequate linear morphology and kinesis. The **right ventricle** was of normal size (1/3 diameter of LV), chordae structure, myocardial echogenicity and thickness. **Pulmonary outflow** 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. The cranial **mediastinum and pericardial and extra-cardiac regions** were free of masses in the visible window.



PATIENT

Emmah-Lu Reese

SPECIES

Canine

BREED

Labrador Retriever

SEX

Spayed Female

AGE

9 years

WEIGHT

41 kg

INTERPRETED BY

R. McKenzie Daniel, DVM, DABVP

IMAGING PERFORMED BY

Crystal Hill

HOSPITAL NAME

Chippaw AH

REFERRING VET

Dr. Dowell

INVOICE

13852

DATE

10/18/21

Urinary System

The urinary bladder, trigone, cystourethral junction, and visible pelvic urethra to a depth of 3.0 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 was noted.

The area of the aortic trifurcation was free of pathology.

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 less than normal liver parenchyma while the medulla echogenicity was hypoechoic to the cortex with no evidence of pelvic dilation. The left kidney measured 6.2 cm in length. The right kidney measured 6.2 cm in length.

Adrenal Glands

The left adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The left adrenal gland measured 2.5 cm length X 0.51 cm width at the caudal pole.

The right adrenal gland was indistinctly visualized owing to patient size and conformation yet without overt pathology, subjectively measuring 2.5 cm length X 0.49 cm width at the caudal pole.

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.

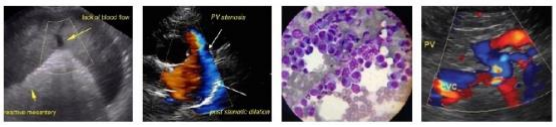
Gastrointestinal

The stomach exhibited potential for mild mural thickening. A mild amount of retained echogenic ingesta, exhibiting subtle progressive acoustic shadowing was present in the gastric lumen. The gastric body wall measured 0.75 cm.

The visualized small intestine exhibited maintained 1:3 muscularis/mucosa ratio without loss of wall layering, overt intestinal masses or mechanical/metabolic ileus. The jejunum wall measured 0.37 cm.

Normal visible colon wall layers were present with apparent formed feces in lumen at the time of the ultrasound.

Pancreas



PATIENT

Emmah-Lu Reese

SPECIES

Canine

BREED

Labrador Retriever

SEX

Spayed Female

AGE

9 years

WEIGHT

41 kg

INTERPRETED BY

R. McKenzie Daniel, DVM, DABVP

IMAGING PERFORMED BY

Crystal Hill

HOSPITAL NAME

Chippaw AH

REFERRING VET

Dr. Dowell

INVOICE

13852

DATE

10/18/21

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 pancreatic duct was normal. No signs of active inflammation or neoplastic disease were evident.

Free Abdomen

No overt lymphadenopathy or peritoneal effusion was present.

ULTRASONOGRAPHIC FINDINGS

- Overtly normal cardiac structure and function
- Minor mitral valve insufficiency
- Possible mild gastric thickening
- Sonographically unremarkable small bowel and colon

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

No evidence of structural lor functional cardiomyopathy. Minor MR was present yet not likely audible. The hemodynamic effects of the minor MR are trivial while the lack of left atrium enlargement and/or overall left or right heart chamber enlargement indicate that the risk of future complication is low.

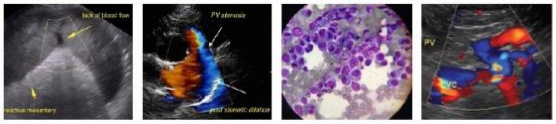
Although not definitive, potential for mild gastric thickening was present. This may indicate suspected gastritis without overt evidence of neoplastic criteria. Dietary intolerance/food hypersensitivity, occult parasitism or structurally insignificant inflammatory bowel may be possible. Further assessment may include GI panel to include PLI/TLI/cobalamin/folate and screening resting cortisol to assess for or rule out occult Addison's disease. Some or all of the following protocol may be considered with a limited antigen or hydrolyzed diet trial.

Helicobacter/Gastritis protocol

A clinical trial of **Zithromax (*Dogs:*** 5-10 mg/kg p.o. q24h. May increase dosing interval to q48h after 3-5 days of treatment)**, Metronidazole** (10-20 mg/kg p.o. b.i.d.), **Pepcid** (0.5-1 mg/kg s.i.d.) and **Sucralfate** (0.5-2 g/dog PO) or **Omeprazole** (1 mg/kg p.o. s.i.d.) over the next 3 weeks along with a **novel-protein or hydrolyzed diet** with slurry feeding b.i.d./t.i.d. over the next 2-4 days and then increase to canned diet bid. Dry food should be avoided
over the next 4 weeks. A recheck sonogram to assess GI improvement or progression would be ideal in 4 weeks.

3 view chest radiographs (if not done) are suggested to rule out occult thoracic or esophageal pathology.

SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™
1-800-838-4268 info@sonopath.com SonoPath.com



THE FOCAL ZONE
IMAGING PERFORMED BY
289-808-2608 info@thefocalzone.com

PATIENT

Emmah-Lu Reese

SPECIES

Canine

BREED

Labrador Retriever

SEX

Spayed Female

AGE

9 years

WEIGHT

41 kg

INTERPRETED BY

R. McKenzie Daniel, DVM, DABVP

IMAGING PERFORMED BY

Crystal Hill

HOSPITAL NAME

Chippaw AH

REFERRING VET

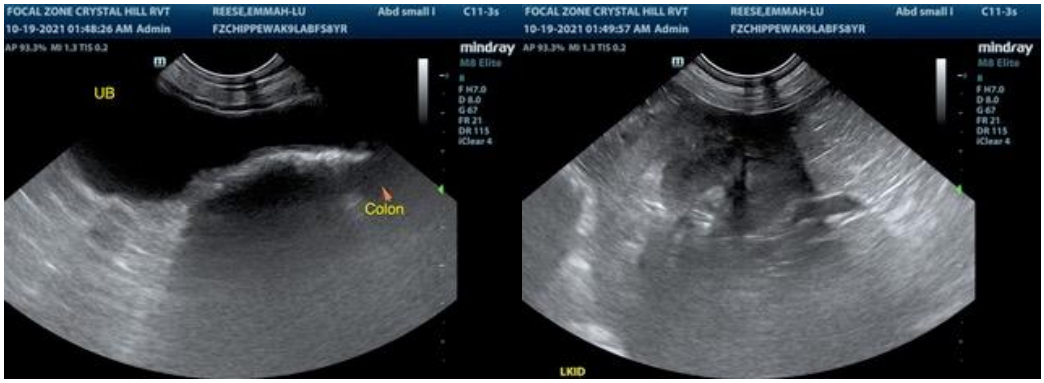
Dr. Dowell

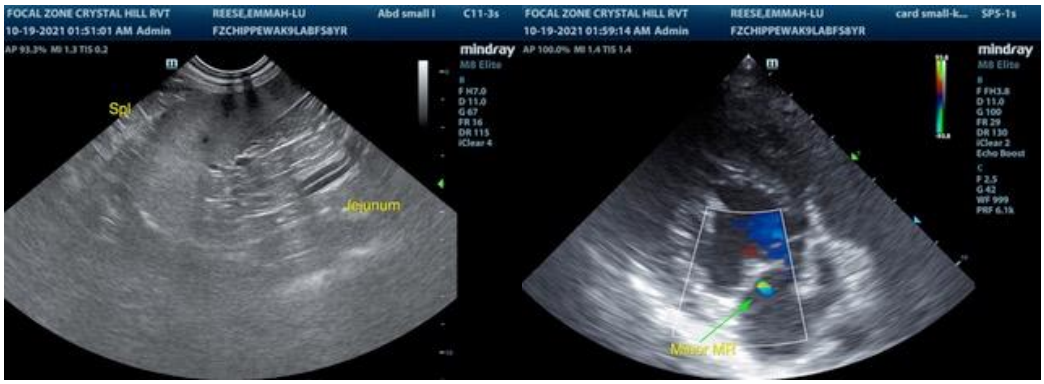
INVOICE

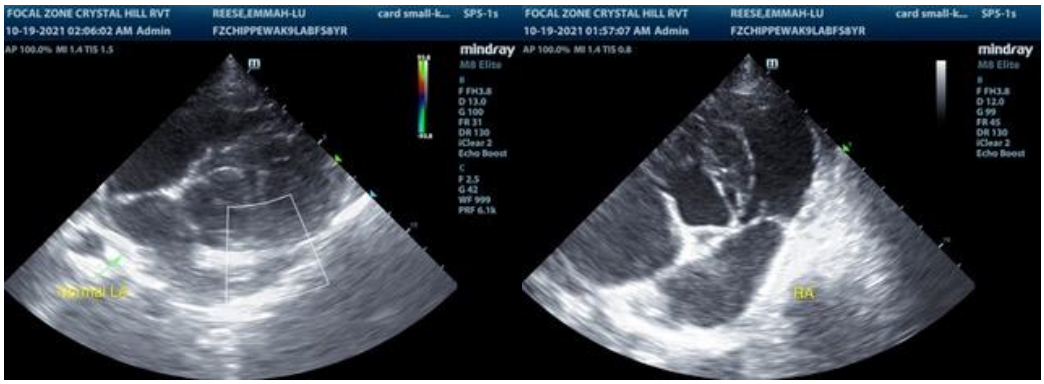
13852

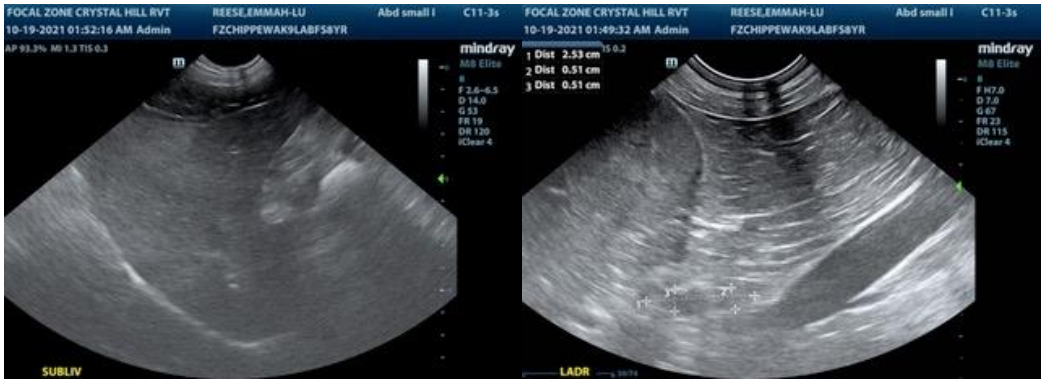
DATE

10/18/21

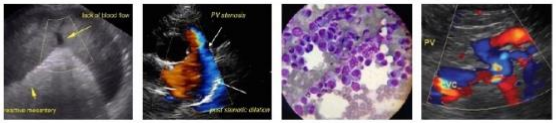








SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™
1-800-838-4268 info@sonopath.com SonoPath.com



THE FOCAL ZONE
IMAGING PERFORMED BY
289-808-2608 info@thefocalzone.com

PATIENT

Emmah-Lu Reese

SPECIES

Canine

BREED

Labrador Retriever

SEX

Spayed Female

AGE

9 years

WEIGHT

41 kg

INTERPRETED BY

R. McKenzie Daniel, DVM, DABVP

IMAGING PERFORMED BY

Crystal Hill

HOSPITAL NAME

Chippaw AH

REFERRING VET

Dr. Dowell

INVOICE

13852

DATE

10/18/21

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.

R. McKenzie Daniel, DVM, DABVP (Canine / Feline Practice)
info@SonoPath.com