

**PATIENT PRESENTING CLINICAL SIGNS**

**Coco Harrington** QAR/nervous, mm pink slightly tacky, crt <2s Normal skin tent, <5% dehydrated O mentioned started to have stomach upset overnight - thinks had diarrhea (didn't see, but asked to go out multiple times and saw p doing something), also vomited (initially food, then bile). Continues throughout the night every couple hours Up until this started, p was acting normally This am not interested in walk, lethargic.

**Canine** Vomited last 2hr ago, bile. NI in food, or water - but took some syringe water from P Nothing o can think of p getting into Hx pancreatitis in past no murmur heard

**BREED** Abnormal PE/Chem/CBC/UA Results: 12/03/2021 CBC - WNL Electrolytes - WNL Chemistry - Severely elevated ALP (1492, prev 892), mildly elevated ALT (56). Mod elevated TP (Alb > Glob)

**Yorkie X ULTRASONOGRAPHIC EXAMINATION OF THE HEART & ABDOMEN**

SEX	CANINE CARDIAC PARAMETERS	MR VMAX (m/s)	TR VMAX (m/s)	LA/AO (Boon method)	LA/AO (Heart Base; Swe)	FS (%)	EF (%)	EPSS (cm)
Spayed Female								
AGE	NORMAL PARAMETER	4.5-5.5	<2.7	1.3	<1.6	28-40	40-100	<0.6
6 Years	PATIENT			NM	1.3	44.1	78.1	0.1
WEIGHT	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)
7.5 kg								
INTERPRETED BY	NORMAL PARAMETER	50-100	0.7-1.7	0.7-1.6				
R. McKenzie Daniel, DVM, DABVP (Canine and Feline)	PATIENT	140	1.9	1.0		2.5	2.25	

**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. 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.

**IMAGING PERFORMED BY**

Kelly Reschny

**HOSPITAL NAME**

BPH Burlington

**REFERRING VET**

Dr. Murota

**INVOICE**

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**DATE**

12/8/21



**PATIENT** *Urinary System*

Coco Harrington 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.

**SPECIES**

Canine

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 4.7 cm. The right kidney measured 4.8 cm.

**BREED**

Yorkie X

*Adrenal Glands*

**SEX**

The left adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The left adrenal gland measured 2.0 cm length x 0.44 cm at the caudal pole.

Spayed Female

The right adrenal gland was mildly prominent in size, exhibiting subtle asymmetrical margination and mild non-homogeneous parenchyma. No evidence of vascular invasion or parenchymal mineralization. The right adrenal gland measured 1.9 cm length x 0.9 cm at the caudal pole.

**AGE**

6 Years

*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.

**WEIGHT**

7.5 kg

*Liver*

The liver presented enlarged in size. The parenchyma of the liver was subjectively normal in echogenicity compared to the spleen and renal cortices. The liver parenchyma was uniform with a mildly coarse echotexture. The capsule of the liver was symmetrically rounded to mildly swollen in margination. The hepatic and portal vasculature were normal in appearance without signs of congestion. The gallbladder was non-distended in size with primarily anechoic luminal content. The cystic and common bile ducts were normal.

**INTERPRETED BY**

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Feline)

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*Gastrointestinal*

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The stomach presented intact wall layering with a normal wall layer ratio. The lumen of the stomach was empty with no signs of ileus, obstruction or foreign material. Gastric body wall measured 0.3 cm.

**REFERRING VET**

Dr. Murota

The small intestine presented intact wall layering with subjective propensity for mildly prominent duodenojejunal mucosa. No evidence of mechanical or metabolic gastrointestinal ileus. Jejunum wall measured 0.39 cm. Duodenum wall measured 0.38 cm.

The colon walls presented intact yet prominent wall layering with mild thickened to echogenic submucosa. Semiformed fecal matter was present in the colon lumen with lumen dilation.

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*Pancreas*

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 regional peripancreatic to right cranial abdominal reactive mesentery. No effusion. No overt evidence of neoplasia.

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## PATIENT

Coco Harrington

## SPECIES

Canine

## BREED

Yorkie X

## SEX

Spayed Female

## AGE

6 Years

## WEIGHT

7.5 kg

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## HOSPITAL NAME

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## REFERRING VET

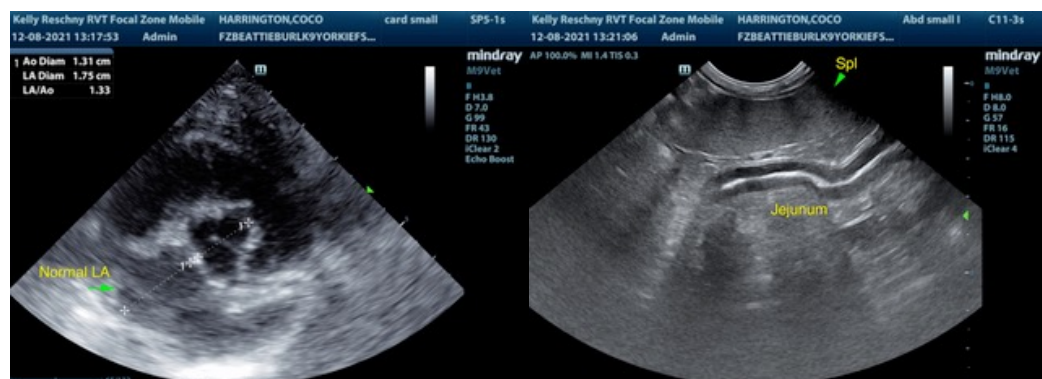
Dr. Murota

## ULTRASONOGRAPHIC FINDINGS

- Normal echocardiogram
- Pancreatitis with regional peripancreatic to right cranial abdominal reactive mesentery – subjective mild active or chronic active pancreatitis.
- Hepatopathy – subjectively benign, metabolic/reactive/vacuolar hepatopathy given the primarily elevated ALP with potential for low-grade hepatic inflammation in light of the elevated ALT.
- Mild enterocolitis

## INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The patient's clinical signs are suspected to be primarily owing to mild active to chronic active pancreatitis with suspected concurrent mild inflammatory enterocolonopathy. Medical therapy for pancreatitis with as needed gastrointestinal support would be appropriate. Monitoring of hepatic enzymes recommended. If persistent hepatic enzyme elevation, ultrasound guided FNA of the liver using 25-gauge needle could be considered for screening cytology. Recheck sonogram to assess for progressive inflammatory, pancreatic, and gastrointestinal changes suggested if clinical signs persist/progress despite therapy.



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**PATIENT**

Coco Harrington

**SPECIES**

Canine

**BREED**

Yorkie X

**SEX**

Spayed Female

**AGE**

6 Years

**WEIGHT**

7.5 kg

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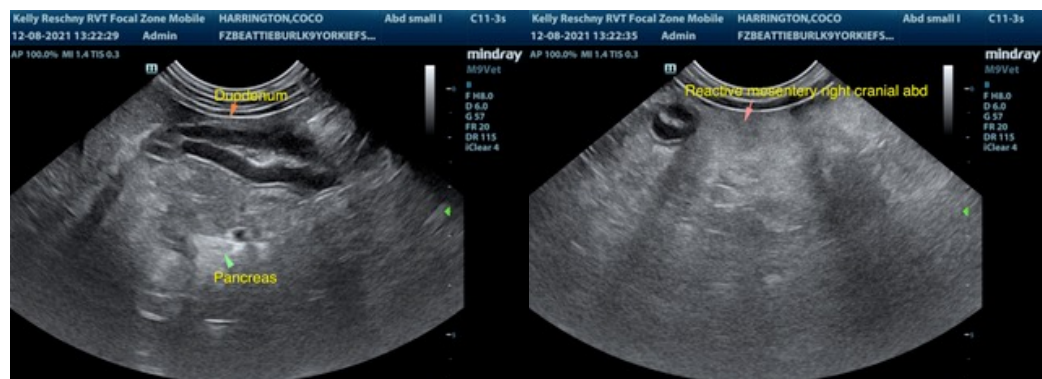
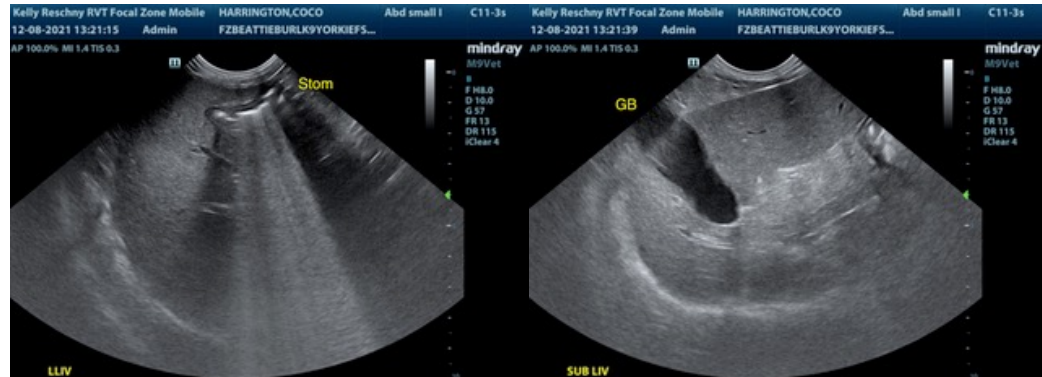
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The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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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