



PATIENT

Max Barrios

PRESENTING CLINICAL SIGNS

collapsing, liquid diarrhea, vomiting

SPECIES

Canine

BREED

Pomeranian

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN AND HEART

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	<1.3	28-40	40-100	<0.6
PATIENT				1.2	41.5	76	0.2
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				
PATIENT	NM	0.9	0.5		1.4	1.3	

SEX

M

AGE

3

WEIGHT

2.8

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. Subjective bradycardia was present.

INTERPRETED BY

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

IMAGING PERFORMED BY

Jenn

HOSPITAL NAME

Rockaway Animal Hospital

REFERRING VET

Dr. Maniar

Urinary System

The urinary bladder, trigone, cystourethral junction, and visible pelvic urethra 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.

INVOICE

12328ag

DATE

11/30/2022

Borderline to subnormal size compared to body weight was present in the kidneys. Indistinct corticomedullary border demarcation was present with pinpoint areas of medullary mineral and small right kidney cyst. The left kidney measured 2.1 cm in length. The right kidney measured 2.3 cm in length.



PATIENT

The area of the aortic trifurcation was free of pathology.

Max Barrios

The area of the prostate gland appeared normal and free of pathology.

SPECIES

Adrenal Glands

Canine

The bilateral adrenal glands were indistinctly visualized. The left adrenal gland measured 0.32 cm width at the caudal pole. The right adrenal gland measured 0.30 cm width at the caudal pole.

BREED

Spleen

Pomeranian

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.

SEX

Liver

M

AGE

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 with minor echogenic luminal debris. No evidence of gallbladder or peripheral gallbladder inflammation was present. The cystic and common bile ducts were normal.

3

WEIGHT

Gastrointestinal

2.8

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.

INTERPRETED BY

The small intestine presented intact wall layering with 1:3 muscularis/mucosa ratio. Minor intermittent segmental duodenojejunal mucosal speckling. The lumen of the small intestine was empty with no signs of ileus, obstruction or foreign material.

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

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

IMAGING PERFORMED BY

Pancreas

Jenn

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.

HOSPITAL NAME

Free Abdomen

Rockaway Animal
Hospital

No omental masses, overt lymphadenopathy or peritoneal effusion was present.

REFERRING VET

ULTRASONOGRAPHIC FINDINGS

Dr. Maniar

- Normal echocardiogram with subjective bradycardia
- Bilateral indistinct renal corticomedullary border demarcation with pinpoint medullary mineral and small right kidney cyst
- Gastroenterocolitis pattern
- Normal hepatic volume

INVOICE

12328ag

DATE

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

11/30/2022



PATIENT

Max Barrios

The bilateral kidneys may suggest some degree of renal dysplasia or non-specific chronic renal changes/nephropathy. A full CBC chem panel and urinary workup is recommended. No overt evidence of underlying cardiac disease as a contributing factor to the patient's collapse was present in this study. ECG assessment for further clarification of the bradycardia may be considered. A screening BP as well as a resting cortisol level is recommended. Empirically as needed supportive care including therapy for gastroenterocolitis +/- a GI panel to include PLI/TLI/Cobalamin/Folate as well as a fresh fecal analysis for parasitic ova/giardia would be reasonable.

SPECIES

Canine

BREED

Pomeranian

SEX

M

AGE

3

WEIGHT

2.8

INTERPRETED BY

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

IMAGING PERFORMED BY

Jenn

HOSPITAL NAME

Rockaway Animal
Hospital

REFERRING VET

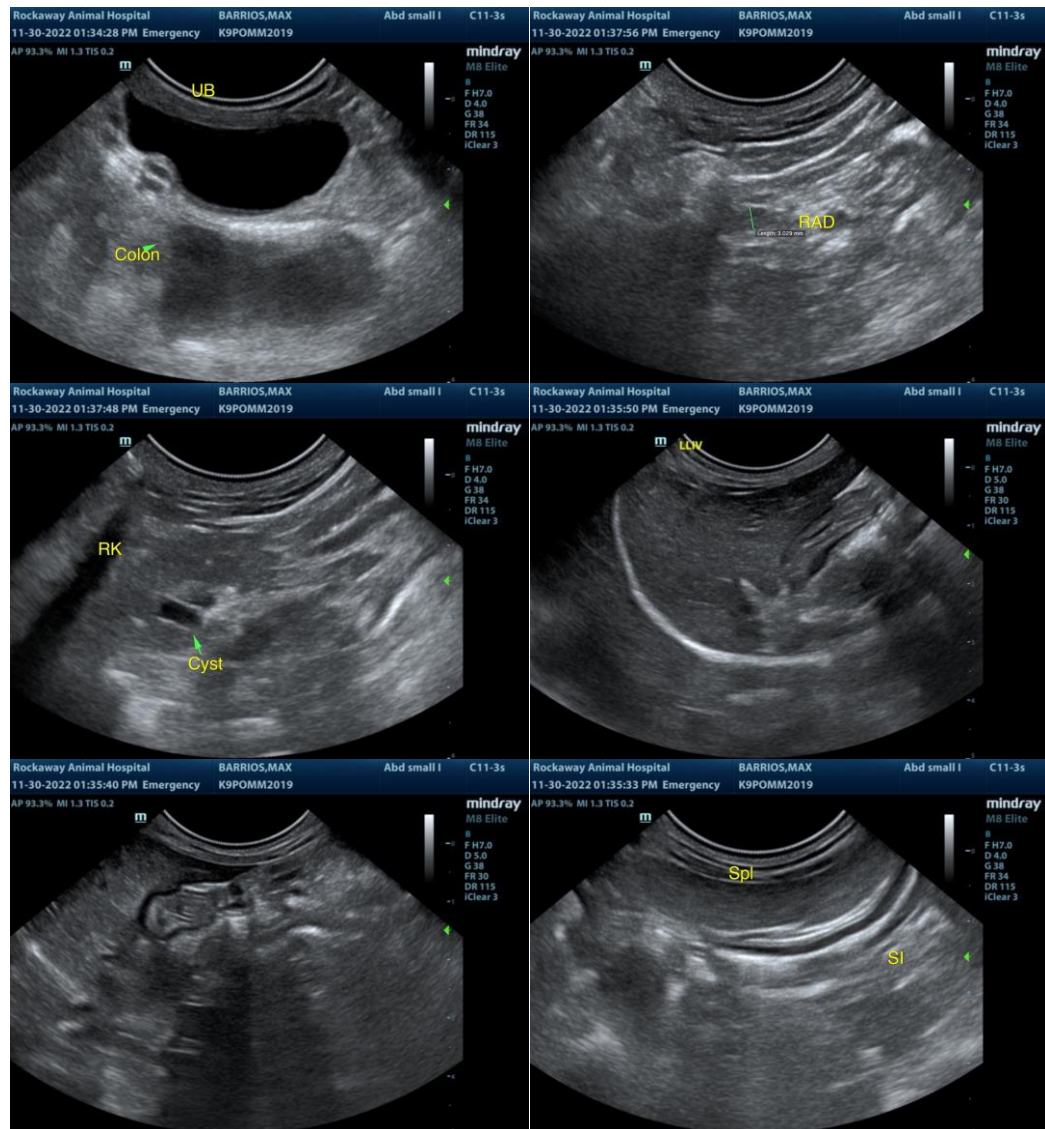
Dr. Maniar

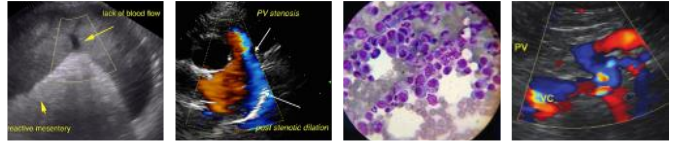
INVOICE

12328ag

DATE

11/30/2022





PATIENT

Max Barrios

SPECIES

Canine

BREED

Pomeranian

SEX

M

AGE

3

WEIGHT

2.8

INTERPRETED BY

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

IMAGING PERFORMED BY

Jenn

HOSPITAL NAME

Rockaway Animal
Hospital

REFERRING VET

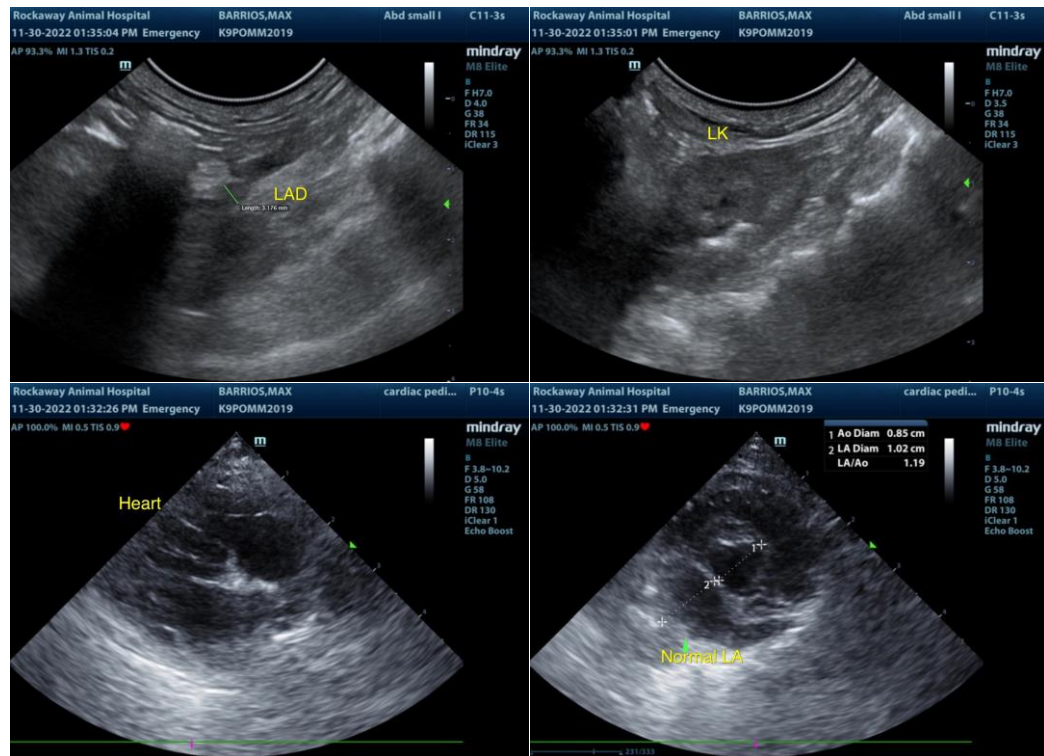
Dr. Maniar

INVOICE

12328ag

DATE

11/30/2022



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.

R. McKenzie Daniel, DVM, DABVP (Canine/Feline Practice)
mac.daniel@sonopath.com