


PATIENT

Molly Evans

PRESENTING CLINICAL SIGNS

Grade III/VI heart murmur, coughing, lethargic. No current meds

SPECIES

Canine

Abnormal PE/Chem/CBC/UA Results: MCH 29.3; MCHC 42.3; Chol 359

BREED

Goldendoodle

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN AND HEART
SEX

FS

AGE

11yr

WEIGHT

50lb

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	5.0	2.0		0.25	35	68	0.27
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	1.1	0.6		4.0	3.7	

Cardiac Presentation

The echocardiogram in this patient demonstrated normal left atrial size based on 2 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 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 or chamber overload. Tricuspid valvular assessment demonstrated adequate linear morphology. Minor TR present 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 3 cm exhibited normal thickness and tone. Anechoic urine was present in the lumen with no uroliths or

INTERPRETED BY

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

IMAGING PERFORMED BY

Shari Reffi CVT

HOSPITAL NAME

 Lk. Hopatcong Animal
 Hosp.

REFERRING VET

Dr. Navarro

INVOICE

14604ag

DATE

08/14/2023



PATIENT

Molly Evans

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 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 5.9 cm in length. The right kidney measured 5.8 cm in length.

BREED

Goldendoodle

The area of the aortic trifurcation was free of pathology.

SEX

FS

Adrenal Glands
A non-homogenous, hyperechoic nodule was present in the cranial left adrenal gland with mild associated symmetrical capsule expansion. The nodule did not exhibit signs of mineralization or vascular invasion. The nodule measured 1.4 cm x 1.2 cm. The left adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The left adrenal gland measured 0.39 cm width at the caudal pole and 3.1 cm length. The right adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The right adrenal gland measured 2.3 cm length and 0.37 cm width at the cranial pole.

AGE

11yr

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

50lb

INTERPRETED BY

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

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. Normal vascular volume. 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.

IMAGING PERFORMED BY

Shari Reffi CVT

Gastrointestinal

The stomach presented intact wall layering with a normal wall layer ratio. The lumen of the stomach contained mild non-shadowing chyme and retained fluid with no signs of ileus, obstruction or foreign material.

HOSPITAL NAME

Lk. Hopatcong Animal
Hosp.

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.

REFERRING VET

Dr. Navarro

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

INVOICE

14604ag

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.

DATE

08/14/2023



PATIENT

Free Abdomen

Molly Evans

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

SPECIES

Canine

BREED

Goldendoodle

ULTRASONOGRAPHIC FINDINGS

- Overtly normal cardiac structure and function.
- Mild MR/TR.
- Mild chronic renal changes.
- Mild hypomotile stomach.
- Sonographically unremarkable small bowel.
- Left adrenal nodule-suspect adenoma.

SEX

FS

AGE

11yr

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The cause of the murmur is mild chronic degenerative valvular changes with secondary centralized MR and mild TR. No evidence of clinical pulmonary hypertension. Given the cardiac presentation, a cardiac cause of the patient's clinical signs was not apparent. Consideration for primary lower airway disease to the reported coughing is likely indicated. Three view chest radiographs are recommended if not done to assess for occult thoracic pathology.

Recheck echocardiogram is suggested in 6 months, sooner if clinical signs suggestive of heart disease develop.

WEIGHT

50lb

Overall, largely a geriatric abdomen with no overt evidence of significant abdominal visceral pathology. If clinical signs of gastric stasis or gastritis are present, as needed GI support including gastroprotectant protocol may be considered.

INTERPRETED BY

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

Technically emerging left adrenal neoplasia is possible and may present in a similar sonographic manner and cannot be excluded. A screening BP is advised to assess for evidence of hypertension which may allude to emerging adrenal neoplastic criteria i.e., pheochromocytoma. Sonographic monitoring of the left adrenal nodule with initial recheck in 6 weeks would be ideal.

IMAGING PERFORMED BY

Shari Reffi CVT

HOSPITAL NAME

Lk. Hopatcong Animal Hosp.

REFERRING VET

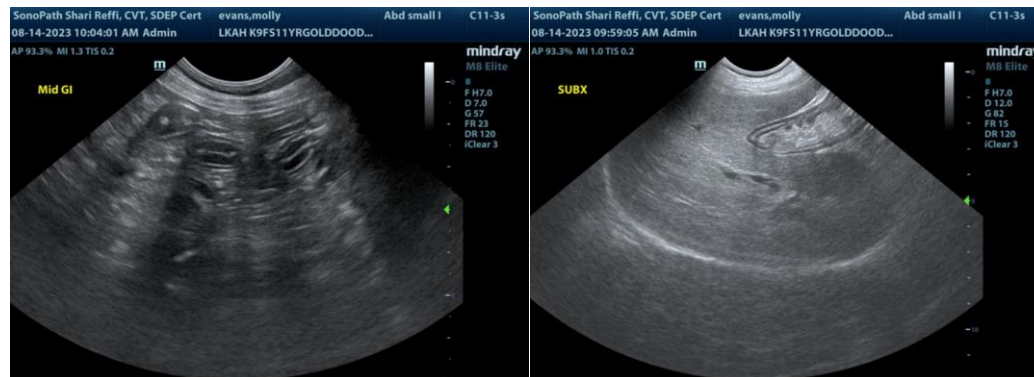
Dr. Navarro

INVOICE

14604ag

DATE

08/14/2023





PATIENT

Molly Evans

SPECIES

Canine

BREED

Goldendoodle

SEX

FS

AGE

11yr

WEIGHT

50lb

INTERPRETED BY

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

IMAGING PERFORMED BY

Shari Reffi CVT

HOSPITAL NAME

Lk. Hopatcong Animal
Hosp.

REFERRING VET

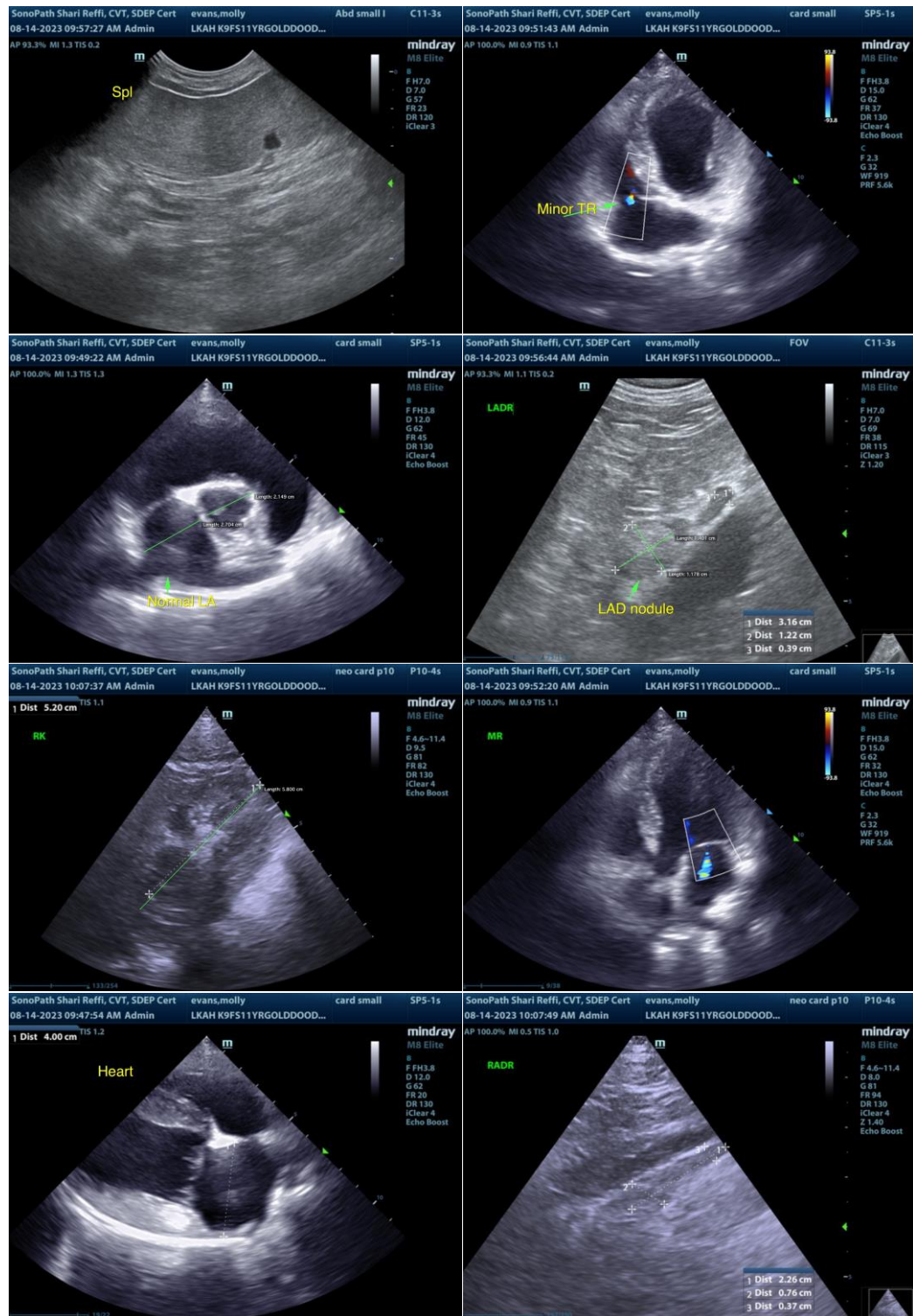
Dr. Navarro

INVOICE

14604ag

DATE

08/14/2023





PATIENT

Molly Evans

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.

SPECIES

Canine

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.

BREED

Goldendoodle

R. McKenzie Daniel, DVM, DABVP (Canine/Feline Practice)

info@sonopath.com

SEX

FS

AGE

11yr

WEIGHT

50lb

INTERPRETED BY

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

**IMAGING
PERFORMED BY**

Shari Reffi CVT

HOSPITAL NAME

Lk. Hopatcong Animal
Hosp.

REFERRING VET

Dr. Navarro

INVOICE

14604ag

DATE

08/14/2023