



PATIENT PRESENTING CLINICAL SIGNS

Rudy Licarardo

History: Possible Cushing's disease, hepatomegaly. Irregular pulmonary nodules.
Abnormal PE/Chem/CBC/UA Results: RBC 5.34, HCT 34, HGB 11.2, MCH 21, reticulocytes 117, retic. HGB 19.7, lymphocytes 769.

SPECIES

Canine

ULTRASONOGRAPHIC EXAMINATION OF THE HEART & ABDOMEN

BREED

Brussels Griffon

SEX

Neutered Male

AGE

11 Years

WEIGHT

22.5 Pounds

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	--	--	1.37	1.2	43	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	111	1.77	1.4	--	2.7	3.1	--

INTERPRETED BY

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

IMAGING PERFORMED BY

Kelly Vazquez

HOSPITAL NAME

New Bridge VC

REFERRING VET

Dr. Glennon

INVOICE

16196

DATE

6/21/22

Cardiac Presentation

The echocardiogram in this patient demonstrated normal **left atrial** size and structure. Chamber volume and blood echogenicity were normal. The cranial and caudal **mitral** valve leaflets presented minor irregular age-related changes that are not clinically significant at this time with adequate extension in systole and union in diastole. The **left ventricle** presented normal free wall and septal thicknesses with linear contour. The **myocardium** presented some echogenic remodeling consistent with expected age-related change. **Contractility** of the ventricular walls was adequate and in normal range for this breed and patient size. The **left ventricular outflow** tract demonstrated normal laminar flow with subjectively unremarkable structure. Subjective assessment of the **right atrium** and auricle revealed normal size, structure and content. No evidence of masses was noted. **Tricuspid** valvular assessment demonstrated expected findings for this age patient. The **right ventricle** was of normal size (1/3 diameter of LV), echogenicity and thickness. **Pulmonic** tract assessment revealed normal valve structure, laminar flow, and diameter (approx.1:1 pa/ao ratio). No dilation due to heartworm disease, cuor pulmonale, stenosis, or pulmonic hypertension was noted. No visible **pericardial** or free pleural fluid was noted. The **mediastinum** was free of masses in the visible window.

Urinary System

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 minor dependent luminal mineral. The ureteral papillae were normal. The ureters were not visible which is normal. No evidence of inflammatory or neoplastic changes were noted.



PATIENT

The residual prostate was free of pathology.

Rudy Licarardo

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. Pinpoint areas of medullary mineral were present. The left kidney measured 4.7 cm in length. The right kidney measured 5.1 cm in length.

SPECIES

Canine

Adrenal Glands

BREED

Brussels Griffon

The left adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The left adrenal gland measured 0.54 cm width at the caudal pole and 0.63 cm width at the cranial pole.

The right adrenal gland was definitively visualized, owing to regional periadrenal pathology.

SEX

Neutered Male

Spleen

The spleen revealed generalized enlargement, areas of mild capsule asymmetry and moderate to severe hypoechoically nodular parenchyma, exhibiting honeycomb pattern and overall decreased splenic parenchyma echogenicity.

AGE

11 Years

Liver

The liver moderate enlargement with primarily maintained symmetrical capsule contour. The liver parenchyma was nonuniform, exhibiting parenchymal remodeling, as well as diffuse indistinct to subtle nodular changes. The hepatic and portal vasculature were normal in appearance without signs of congestion.

WEIGHT

22.5 Pounds

INTERPRETED BY

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

The gallbladder was non distended in size with mild gallbladder debris. The cystic duct and common bile ducts were normal without evidence of dilation.

Gastrointestinal

IMAGING PERFORMED BY

Kelly Vazquez

The stomach presented intact wall layering with a normal wall layer ratio. Minor retained anechoic fluid was present.

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.

HOSPITAL NAME

New Bridge VC

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

Pancreas

REFERRING VET

Dr. Glennon

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

INVOICE

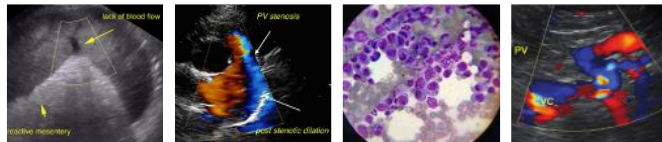
16196

Mildly prominent to hypoechoic medial iliac lymph nodes were present, adjacent to the aortic trifurcation.

DATE

6/21/22

Multifocal, variably sized yet hypoechoic to swollen intraabdominal lymph nodes were present. The enlarged lymph nodes included splenic, jejunocolic, mesenteric root and hepatic lymph nodes. The lymph nodes exhibited symmetrical to rounded margination with abnormal width: length ratio (>0.5). The lymph


PATIENT

Rudy Licarardo

nodes were bordered by primarily perilymphatic hyperechoic mesentery. An example of intraabdominal lymph nodes measured 5.2 cm x 3.0 cm.

Small pockets of scant peritoneal free fluid were present.

SPECIES

Canine

ULTRASONOGRAPHIC FINDINGS
Primary Findings

- Overtly normal cardiac structure and function
- Splenomegaly, exhibiting diffuse hypoechoic nodular to honey-comb pattern parenchyma
- Hepatomegaly
- Multifocal, variably sized yet hypoechoic to swollen intraabdominal and minor medial iliac lymphadenopathy associated perilymphatic reactive to potentially inflamed mesentery and scant peritoneal free fluid.

BREED

Brussels Griffon

SEX

Neutered Male

AGE

11 Years

Secondary Findings

- Minor dependent urinary bladder mineral
- Mild chronic renal changes with minor medullary mineral
- Mild gallbladder debris (non-mucocele)

WEIGHT

22.5 Pounds

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS
INTERPRETED BY

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

Although sampling is required for a definitive diagnosis, the presentation of the spleen, combined with multicentric hypoechoic to swollen intraabdominal lymphadenopathy, both of which meet neoplastic criteria, is most consistent with multicentric neoplasia, i.e., round cell neoplasia or other. This finding suggests that the pulmonary nodules noted on the radiographs may indicate concurrent pulmonary metastasis.

IMAGING PERFORMED BY

Kelly Vazquez

Assuming normal clotting status, ultrasound guided splenic and lymphatic FNA, using a 25-gauge needle, could be considered for screening cytology, oncology consult and potential for immediate chemotherapeutic intervention. However, unfortunately a likely unfavorable prognosis is indicated.

HOSPITAL NAME

New Bridge VC

REFERRING VET

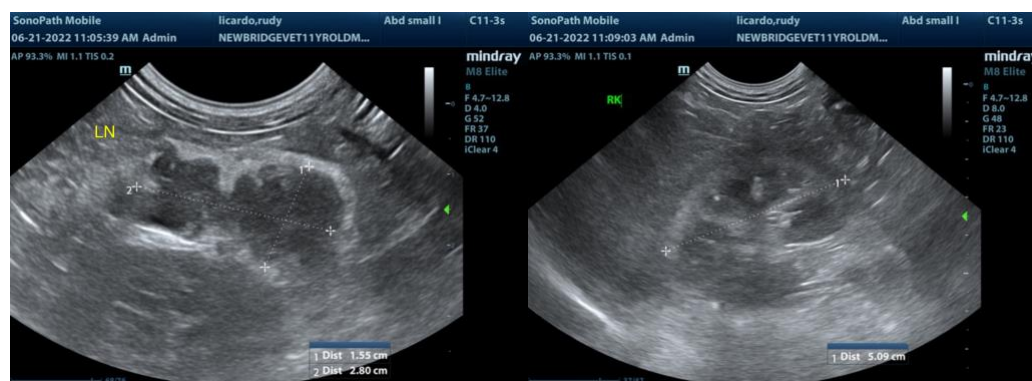
Dr. Glennon

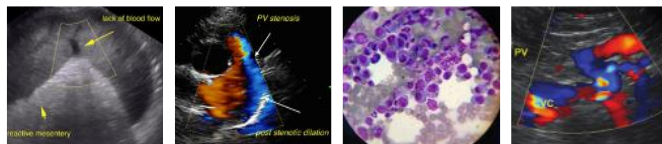
INVOICE

16196

DATE

6/21/22





PATIENT

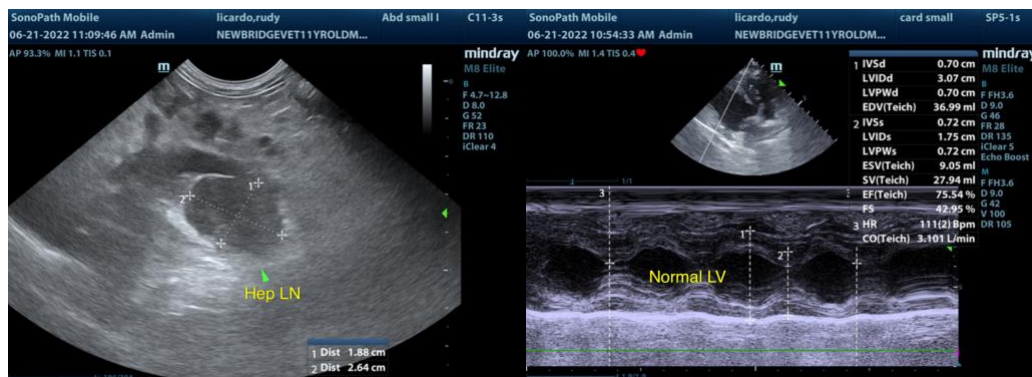
Rudy Licarardo

SPECIES

Canine

BREED

Brussels Griffon



SEX

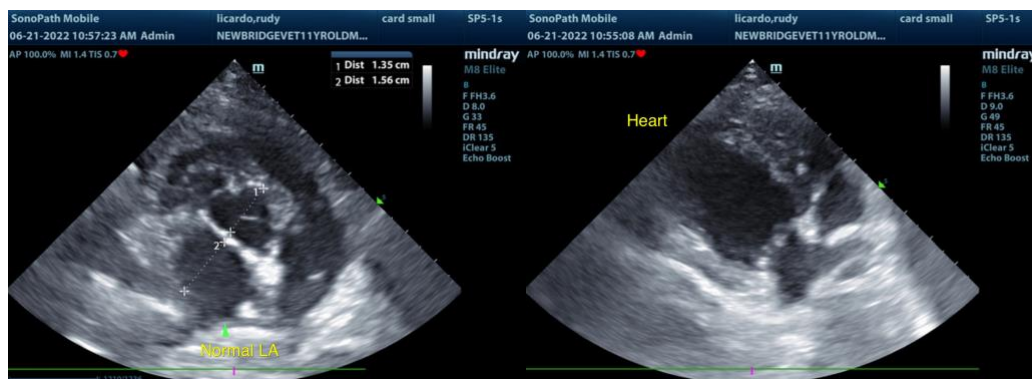
Neutered Male

AGE

11 Years

WEIGHT

22.5 Pounds



INTERPRETED BY

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

IMAGING PERFORMED BY

Kelly Vazquez

HOSPITAL NAME

New Bridge VC

REFERRING VET

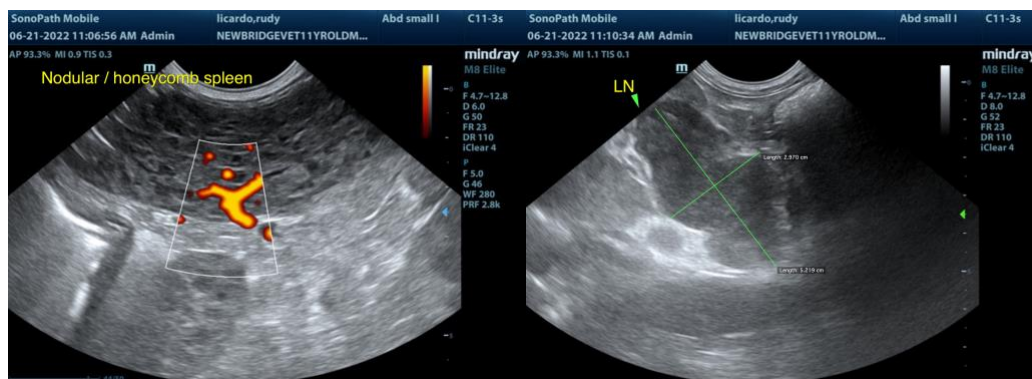
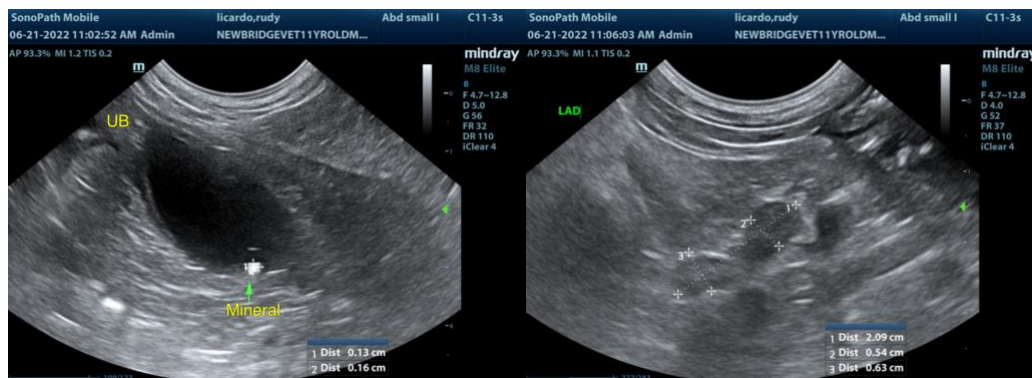
Dr. Glennon

INVOICE

16196

DATE

6/21/22





PATIENT

Rudy Licarardo

SPECIES

Canine

BREED

Brussels Griffon

SEX

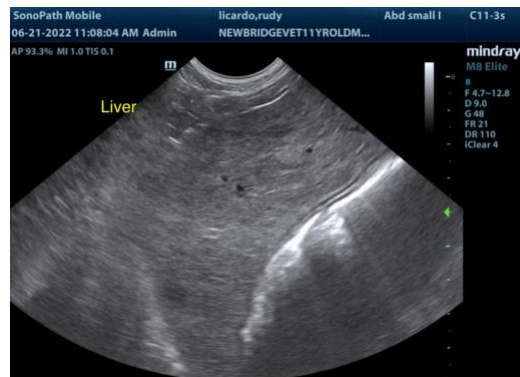
Neutered Male

AGE

11 Years

WEIGHT

22.5 Pounds



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

INTERPRETED BY

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

IMAGING PERFORMED BY

Kelly Vazquez

HOSPITAL NAME

New Bridge VC

REFERRING VET

Dr. Glennon

INVOICE

16196

DATE

6/21/22