



PATIENT

Bentley Lugo

SPECIES

Canine

BREED

Labrador

SEX

MN

AGE

9 years

WEIGHT

31.7 kg

INTERPRETED BY

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

IMAGING PERFORMED BY

Sara Hansen

PRESENTING CLINICAL SIGNS

Patient present for shaking and odd vocalization starting this morning. No known toxin ingestion and no seizure history. Not eating or drinking. Owner has noticed some muscle wasting in the last couple months. Was BAR yesterday. On exam he had a 104.3 fever and some slightly shaking. Muscle wasting noticed down spine. Nauseous when offered food. Lethargic. Abdomen not distended. Mucus membrane pink and moist

Abnormal PE/Chem/CBC/UA Results: CBC: mild thrombocytopenia(100,000/ul) Chemistry: normal UA: 3+ protein and pH 9, but rest normal 4DX snap test: negative x 4 Current Medications Clavamox

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	<1.3	28-40	40-100	<0.6
PATIENT				1.2	28.6	59	0.31
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	1.4	1.0		4.1	3.5	

HOSPITAL NAME

Silver Creek Animal
Clinic

REFERRING VET

Dr. Tangeman

INVOICE

13821

DATE

5/6/22

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 mildly subnormal as 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,



PATIENT

Bentley Lugo

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.

SPECIES

Urinary System

Canine

The urinary bladder, trigone, cystourethral junction, and visible pelvic urethra to a depth of 5.0 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.

BREED

Labrador

SEX

The residual prostate was symmetrically normal in size with uniform parenchyma and slight coarse echotexture measuring 0.92 cm in diameter.

MN

The area of the aortic trifurcation was free of pathology, including no evidence of medial iliac or sublumbar lymphadenopathy.

AGE

9 years

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 border demarcation expected for the age of the patient. No evidence of pelvic dilation was present. The left kidney measured 7.5 cm in length. The right kidney measured 7.4 cm in length.

WEIGHT

31.7 kg

INTERPRETED BY

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

Adrenal Glands

Spherical nonhomogeneous mass in the area of the left adrenal gland exhibiting subtle hyperechoic parenchymal nodules measuring 3.4 cm x 2.3 cm, was present. No overt evidence of parenchymal mineralization was noted. Obvious vascular Invasion associated with the mass in the area of the left adrenal gland was not definitively evident, yet cannot be definitively excluded.

**IMAGING
PERFORMED BY**

Sara Hansen

The right adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The right adrenal gland measured 2.9 cm length x 0.44 cm width at the caudal pole.

HOSPITAL NAME

Silver Creek Animal
Clinic

Spleen

The spleen exhibited primarily finely textured parenchyma which was hyperechoic to the liver and renal cortical parenchyma. Mild generalized parenchyma heterogeneity was present without evidence of nodular changes. 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. The parenchymal heterogeneity is likely consistent with benign changes such as extramedullary hematopoiesis or age-related remodeling. No evidence of neoplastic criteria was noted.

REFERRING VET

Dr. Tangeman

INVOICE

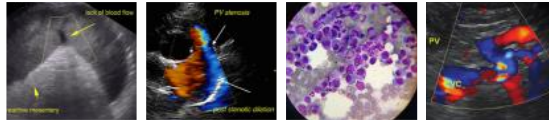
13821

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.

DATE

5/6/22



PATIENT

Gastrointestinal

Bentley Lugo

The stomach presented intact wall layering with a normal wall layer ratio. Mild retained nonshadowing ingesta / chyme was present.

SPECIES

Canine

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.

BREED

Labrador

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

SEX

MN

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 were evident.

AGE

9 years

Free Abdomen

No omental masses, lymphadenopathy or peritoneal effusion were present.

WEIGHT

31.7 kg

ULTRASONOGRAPHIC FINDINGS

- Normal echocardiogram with mild LV hypocontractility - systemic disease, metabolic disease, potential athletic state can present in this fashion, DCM criteria was not present
- Left adrenal mass
- Age-related kidneys
- Overtly normal gastrointestinal tract with mild gastric ingesta / chyme

INTERPRETED BY

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

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Considerations for the left adrenal mass may include functional vs. nonfunctional adenoma, hyperplasia with neoplastic criteria, i.e., pheochromocytoma, adenocarcinoma, or other, favored. Screening blood pressure to assess for evidence of hypertension which may allude to a left pheochromocytoma is suggested.

Further renal staging to include urine C/S and protein: creatinine ratio on sterile urine sample may be considered.

No obvious evidence of concurrent gastrointestinal pathology was noted. If documented NPO, the presence of gastric ingesta / chyme may possibly suggest some degree of metabolic gastric stasis. No overt evidence of mechanical obstruction or foreign material was noted. Continued gastrointestinal support and potential monitoring of gastric emptying are suggested.

A definitive cause of the fever was not obvious. Three view chest radiographs are recommended If not done +/- a GI panel to assess for or rule out occult gastrointestinal disease, given the patient's

IMAGING PERFORMED BY

Sara Hansen

HOSPITAL NAME

Silver Creek Animal
Clinic

REFERRING VET

Dr. Tangeman

INVOICE

13821

DATE

5/6/22



PATIENT

gastrointestinal signs and muscle wasting, is warranted. Abdominal CT for further assessment of the left adrenal mass and potential surgical planning could be considered.

Bentley Lugo

SPECIES

Canine

BREED

Labrador

SEX

MN

AGE

9 years

WEIGHT

31.7 kg

INTERPRETED BY

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

IMAGING PERFORMED BY

Sara Hansen

HOSPITAL NAME

Silver Creek Animal
Clinic

REFERRING VET

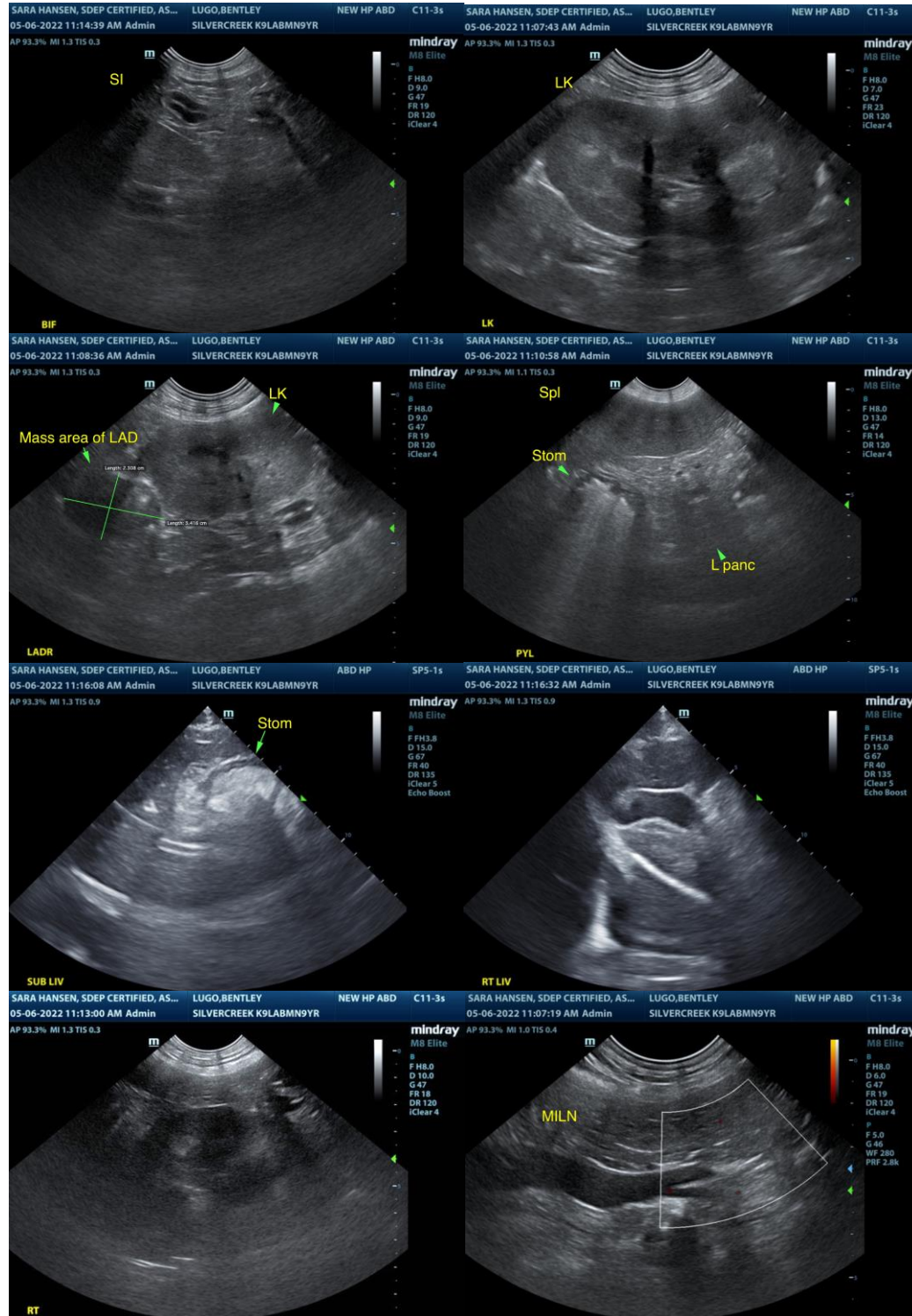
Dr. Tangeman

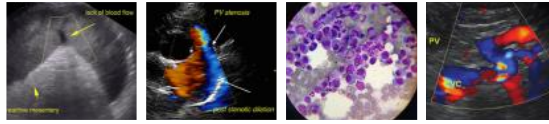
INVOICE

13821

DATE

5/6/22





PATIENT

Bentley Lugo

SPECIES

Canine

BREED

Labrador

SEX

MN

AGE

9 years

WEIGHT

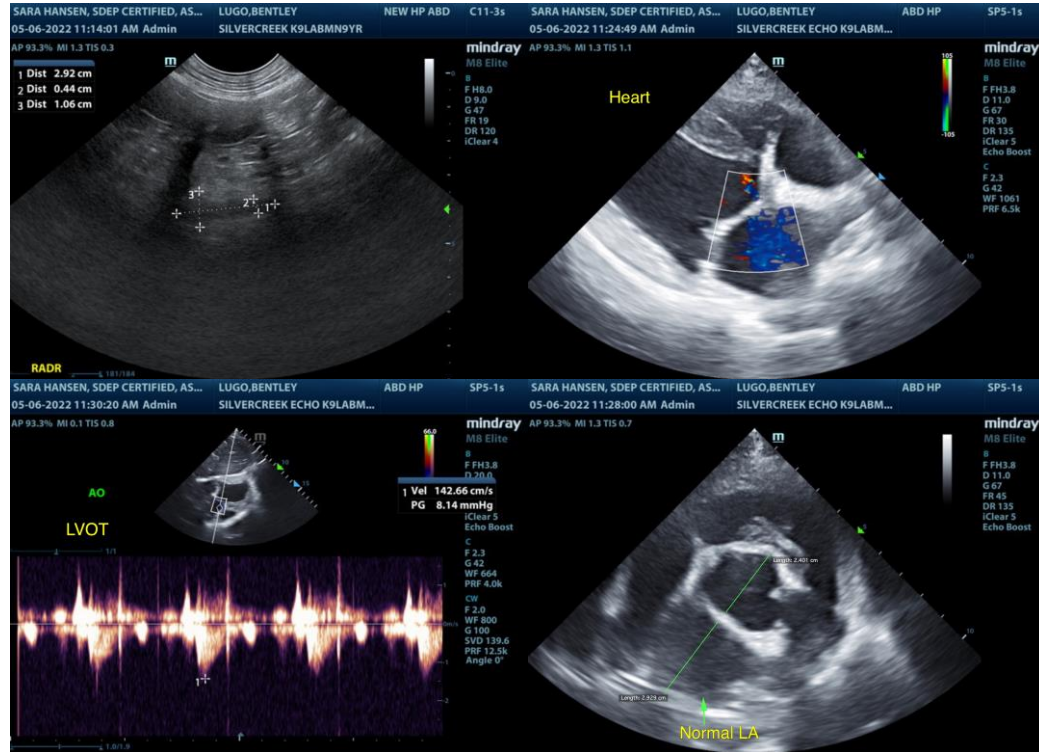
31.7 kg

INTERPRETED BY

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

IMAGING PERFORMED BY

Sara Hansen



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)
info@SonoPath.com

HOSPITAL NAME
Silver Creek Animal
Clinic

REFERRING VET

Dr. Tangeman

INVOICE

13821

DATE

5/6/22