

**PATIENT**

Gertie Schumacher

SPECIES

Canine

BREED

Boxer

SEX

FS

AGE

8yr

WEIGHT

64lb

INTERPRETED BYR. McKenzie Daniel,
DVM, DABVP
(Canine and Feline)**IMAGING PERFORMED BY**

Sarah Pender CVT

HOSPITAL NAME

SVS Imaging QC

REFERRING VET

Gertie Schumacher

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DATE

09/02/2022

PRESENTING CLINICAL SIGNS

Cluster seizure 8/31 in a.m. Then single seizure 3:30 p.m. followed by diazepam 9mg intravenous. The seizures are gran mal with 90sec duration. The cluster seizure was two separated by 1 minute. They were gran mal as well. Gertie has never had seizures. Her flea/tick control is Frontline and she has Interceptor for heartworm control. She has no other meds. No neurologic deficits noted.

Abnormal PE/Chem/CBC/UA Results: CBC and CMP are within normal limits. Radiographs reveal a 5.0cm soft tissue mass in the left lung field.

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					1.55	26	52	0.34
	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		1.3		4.1	3.7	

Cardiac Presentation

The echocardiogram in this patient demonstrated borderline to minor increased left atrial size based on 2 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. Minor MR present on Doppler. 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. Trace aortic insufficiency present on Doppler. 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. Possible mild bradycardia. No evidence of arrhythmia.

Urinary System

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The urinary bladder, trigone, cystourethral junction, and visible pelvic urethra to a depth of 4 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 was 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 6.6 cm in length. The right kidney measured 6.9 cm in length.

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The area of the aortic trifurcation was free of pathology.

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

Adrenal Glands**AGE**

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The left adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The left adrenal gland measured 0.36 cm width at the caudal pole and 1.7 cm length. The right adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The right adrenal gland measured 0.57 cm width at the caudal pole and 2.5 cm length.

Spleen**WEIGHT**

64lb

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 with minor potential for inflammatory or neoplastic disease.

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Liver**IMAGING PERFORMED BY**

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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.

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Gastrointestinal

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

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.

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

Pancreas**INVOICE**

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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.

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Free Abdomen

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



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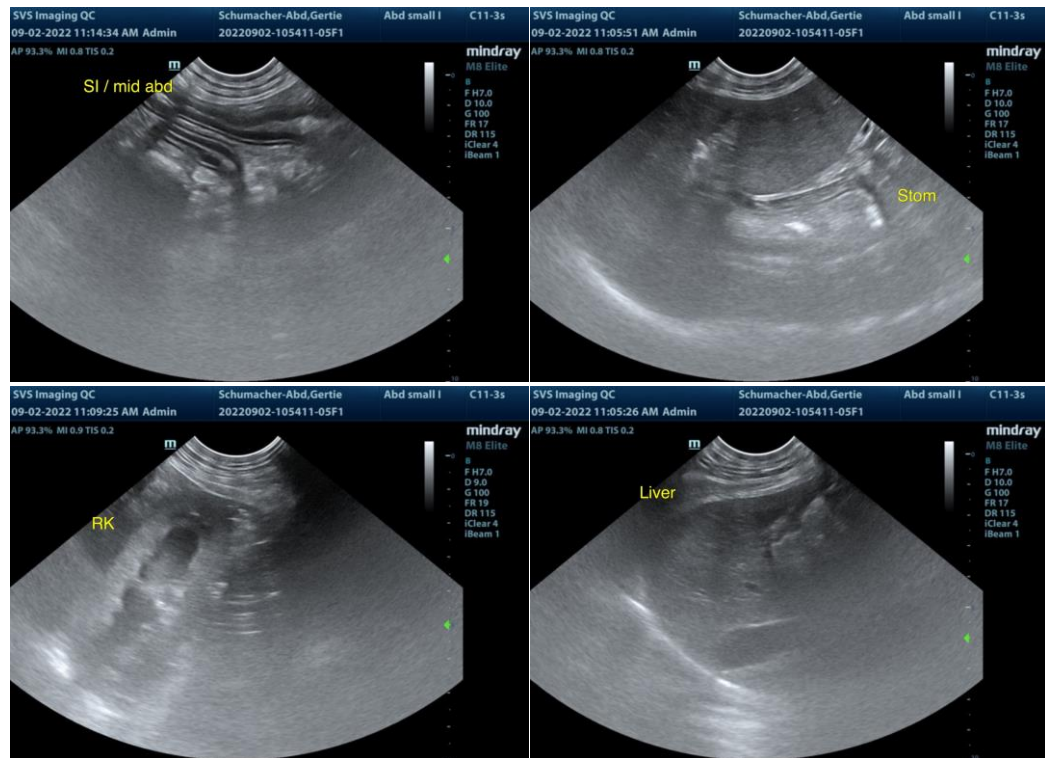
ULTRASONOGRAPHIC FINDINGS

- Overtly normal cardiac structure and function with mild LV hypocontractility-systemic disease, hypothyroidism, patient variant or athletic state can present in this manner. DCM criteria was not met
- Mild MR
- Trace aortic insufficiency
- Sonographically unremarkable abdomen

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

ECG assessment is suggested to assess for underlying arrhythmia given the breed as well as assessment of heart rate. No indication for cardiac medications used to treat structural/functional cardiomyopathy. No obvious evidence of reported soft tissue mass in the pericardial lung field.

Overall, no evidence of significant abdominal visceral pathology was present in this study as a definitive cause of the patient's clinical signs.



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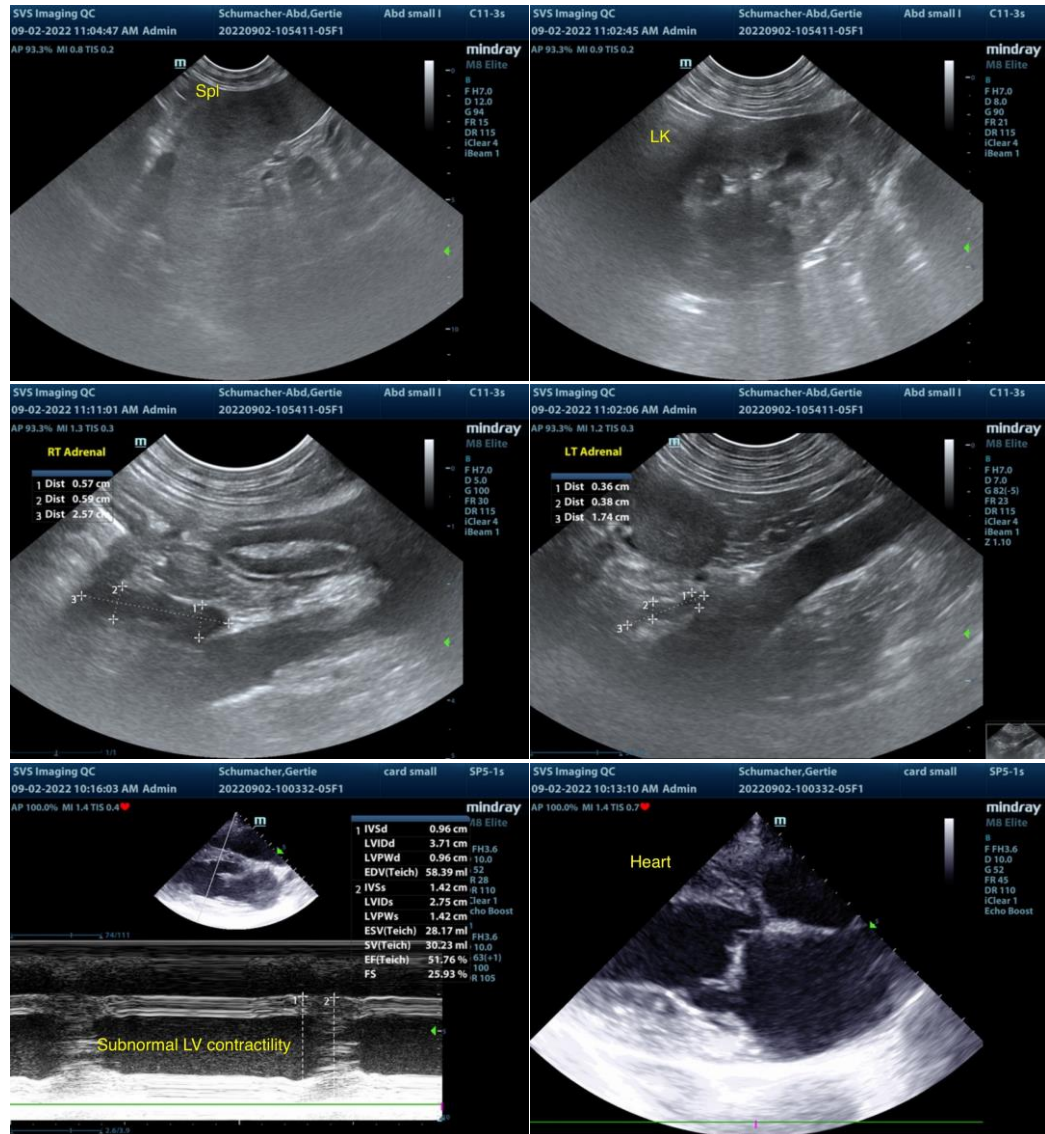
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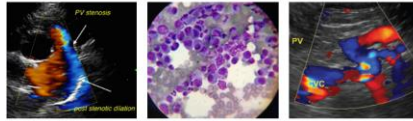
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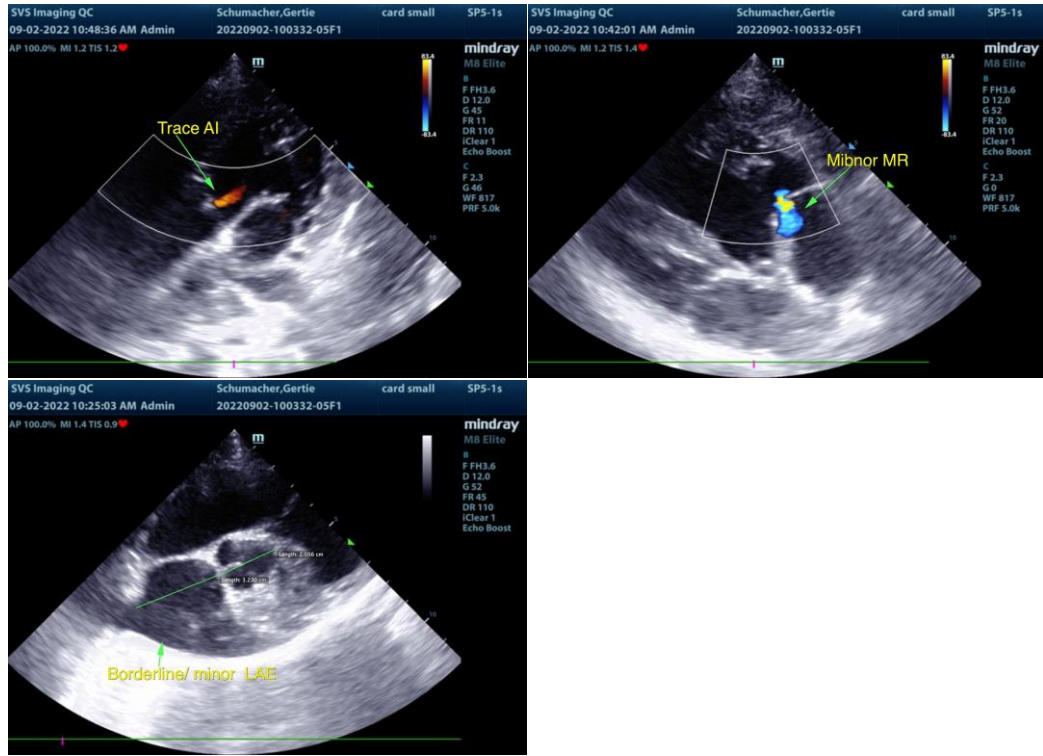
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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

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