



PATIENT

Leo Ciccarella

SPECIES

Canine

BREED

Shih Tzu

SEX

Intact Male

AGE

13 years

WEIGHT

6.2 lbs.

INTERPRETED BY

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

IMAGING PERFORMED BY

Shari Reffi, CVT

HOSPITAL NAME

Rockaway AH

REFERRING VET

Dr. Maniar

INVOICE

13002

DATE

1/7/22

PRESENTING CLINICAL SIGNS

Anorexia, lethargy, hx of hind leg paresis (chronic), congested, starting showing anorexia after aspirating meds.

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	<1.6	28-40	40-100	<0.6
PATIENT	5.0	2.2	--	1.3	51.8	86.7	0.1
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	BELOW	BELOW	BELOW	BELOW
PATIENT	157	1.1	0.9		2.25	1.7	

Cardiac Presentation

The echocardiogram in this patient demonstrated normal **left atrial** size based on 3 different LA measurement methods. Chamber volumes and echogenicity were normal. The cranial and caudal **mitral** valve leaflets presented vegetative thickening consistent with endocardiosis. Doppler indicated measurable eccentric mitral valve insufficiency. The **left ventricle** presented thicknesses with linear contour and was not dilated nor restricted. 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 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 concurrent mild thickening with evidence of minor insufficiency on color doppler assessment. 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, and cystourethral junction 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.



PATIENT	The prostate was enlarged in size with intact, symmetrical capsule contour. The margins of the gland were intact and able to be differentiated from the surrounding tissue. The prostatic parenchyma was mildly echogenic to heteroechoic without parenchymal mineralization. The prostate measured 2.5 cm diameter.
Leo Ciccarella	
SPECIES	The area of the aortic trifurcation was free of pathology.
Canine	
BREED	Normal renal size with asymmetrical margination were present in both kidneys. The renal cortex presented uniformly increased in echogenicity with uniform echotexture. The renal cortex appeared to be hypertrophied resulting in an altered cortex: medulla ratio. Mild loss of corticomedullary distinction was also present. Nonobstructive medullary mineralization to renolithiasis was present. The renal medullary volume was subjectively reduced. The left kidney measured 3.3 cm in length. The right kidney measured 3.4 cm in length.
Shih Tzu	
SEX	
Intact Male	
AGE	Adrenal Glands
13 years	The left adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The left adrenal gland measured 1.7 cm length x 0.50 cm width at the caudal pole. The right adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The right adrenal gland measured 1.6 cm length x 0.50 cm width at the caudal pole.
WEIGHT	Spleen
6.2 lbs.	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.
INTERPRETED BY	Liver/ Gallbladder
R. McKenzie Daniel, DVM, DABVP (Canine and Feline)	The liver was subjectively normal in size, structure, and contour. The liver parenchyma was mildly nonuniform and hypoechoic to the spleen with a moderate coarse echotexture and subjective mild to benign parenchymal remodeling. The hepatic and portal vasculature were normal in appearance without signs of congestion. The gallbladder was non-distended in size with mild gallbladder debris. The cystic and common bile ducts were normal.
IMAGING PERFORMED BY	Gastrointestinal
Shari Reffi, CVT	The stomach presented intact yet subjective mild prominent wall layering primarily in the area of the antrum and pylorus. The pylorus wall width measured 0.56 cm. Retained anechoic fluid, mildly echogenic chyme, and pockets of luminal gas were present in the stomach. No overt evidence of retained ingesta or overt foreign material was noted. The ventral gastric body wall width measured 0.39 cm.
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PATIENT	accumulation in the intestinal lumen was present without obstruction or foreign material. The duodenum wall width measured 0.42 cm.
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	<i>Pancreas</i>
Canine	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.
BREED	
Shih Tzu	
SEX	<i>Free Abdomen</i>
Intact Male	No overt lymphadenopathy or peritoneal effusion was present.
AGE	The right testicle was normal in size, measuring 1.8 cm in diameter. A solitary, well-demarcated, ovoid, primarily uniformly echogenic nodule was present in the right testicle without parenchymal distortion, measuring 0.55 cm in diameter. The left testicle was normal, measuring 1.6 cm in diameter.
13 years	
WEIGHT	ULTRASONOGRAPHIC FINDINGS
6.2 lbs.	<i>Primary Findings</i>
INTERPRETED BY	<ul style="list-style-type: none"> • Chronic mitral valve disease (ACVIM B1) with mild age-related myocardial remodeling • Gastroenteritis pattern with moderate gastric hypomotility and segmental minor jejunal ileus / corrugation - subjectively acute • Chronic renal changes with nonobstructive medullary mineralization / renolithiasis • Mild gallbladder debris (non-mucocele) • Benign prostatic hyperplasia • Nonspecific right testicle nodule
R. McKenzie Daniel, DVM, DABVP (Canine and Feline)	
IMAGING PERFORMED BY	<u>INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS</u>
Shari Reffi, CVT	The cause of the murmur is chronic degenerative valvular changes with secondary eccentric mitral valve insufficiency. The lack of left atrial enlargement implies that the risk of complication secondary to mitral valve insufficiency is low at this time and, without current clinical signs, indicates that medical therapy is not required. Conservative monitoring is recommended with a recheck echocardiogram in 6-12 months, sooner if clinical signs suggestive of heart disease develop.
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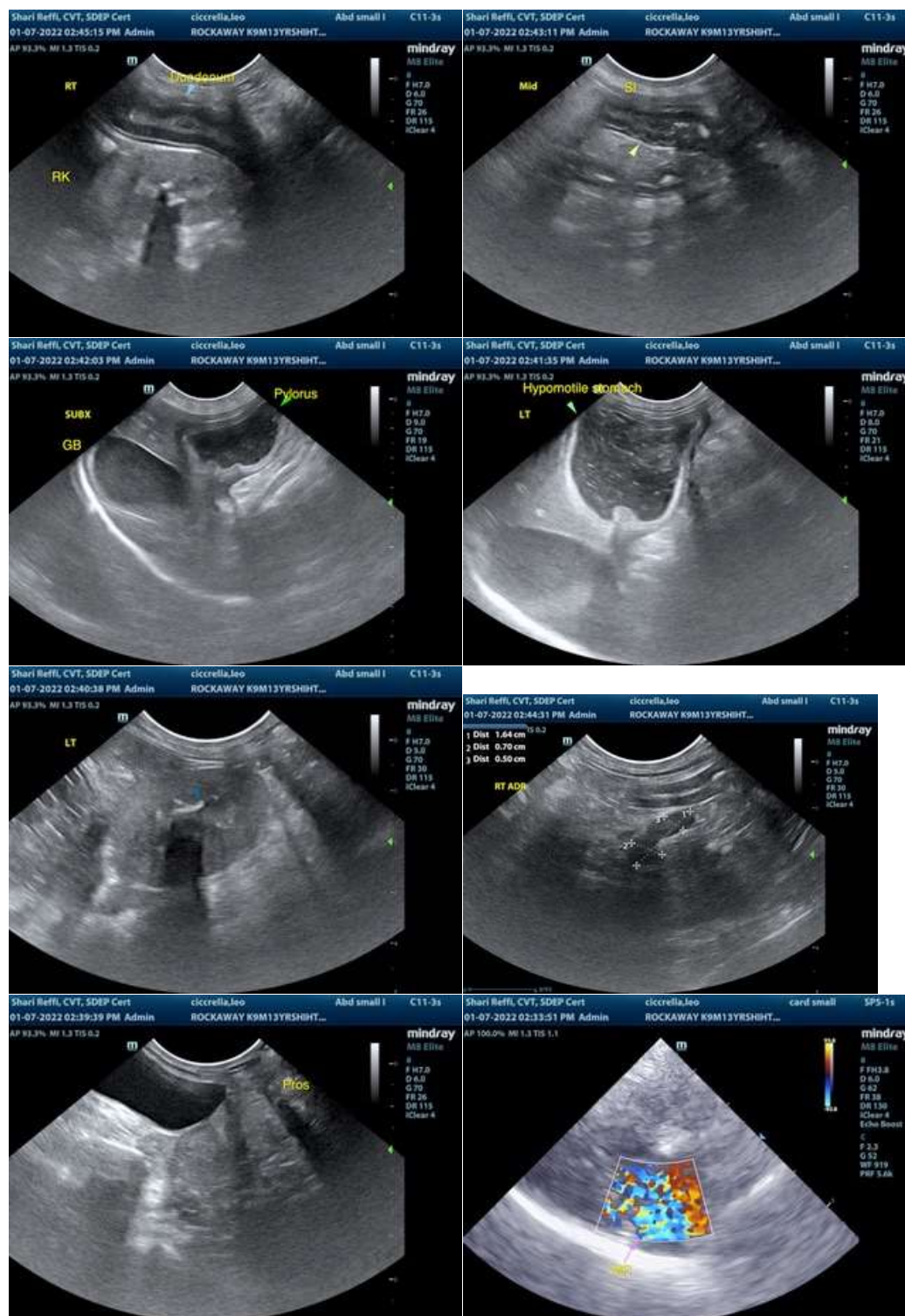
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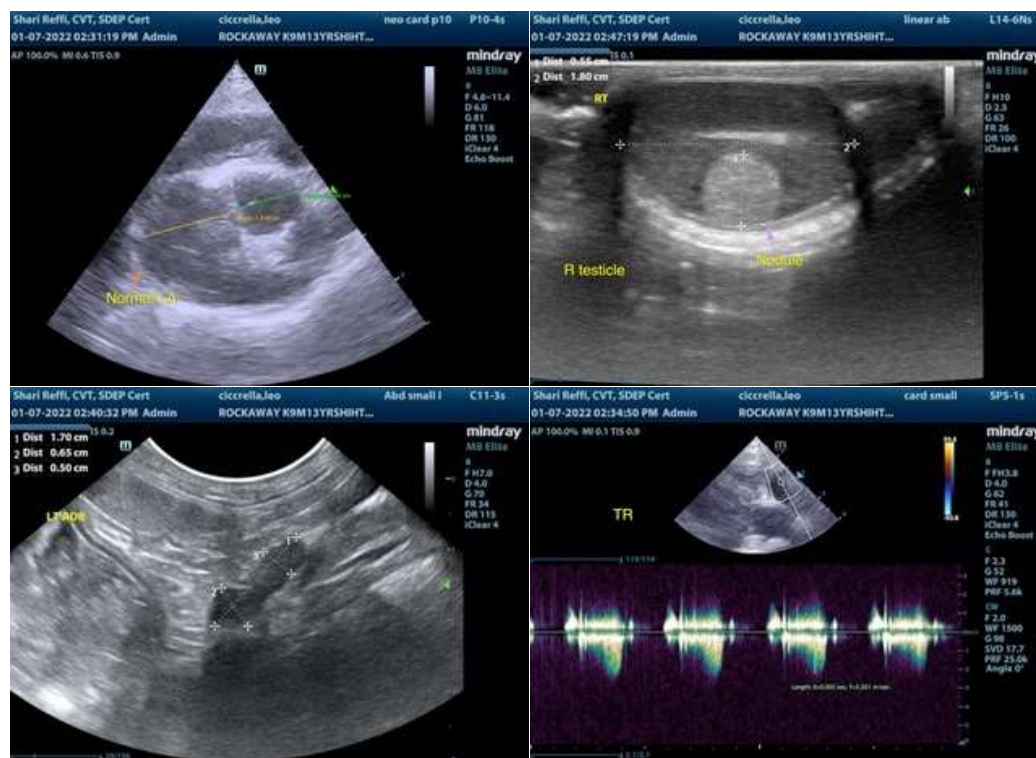
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The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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