



PATIENT PRESENTING CLINICAL SIGNS

Cloe Katchur History: HX of Cushing's (being treated) and murmur (gradually increasing). On Enalapril and Trilostane.
Abnormal PE/Chem/CBC/UA Results: WNL

SPECIES

Canine

ULTRASONOGRAPHIC EXAMINATION OF THE HEART & ABDOMEN

BREED

Shih Tzu

SEX

Spayed Female

AGE

13 Years

WEIGHT

22 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	--	--	1.3	--	48	83	0.15
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	NM	NM	--	2.4	2.5	--

INTERPRETED BY

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

IMAGING PERFORMED BY

Tasha

HOSPITAL NAME

Dillsburg VC

REFERRING VET

Dr. Amber

INVOICE

15109

DATE

5/9/22

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 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. **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.

Urinary System

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



PATIENT	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. Small cortical cysts were present in both kidneys. The left kidney measured 4.9 cm in length. The right kidney measured 4.3 cm in length.
Cloe Katchur	
SPECIES	Adrenal Glands
Canine	Left adrenal gland enlargement with uniformly hypoechoic parenchyma was present. The left adrenal gland measured 0.79 cm width at the caudal pole and 0.68 cm width at the cranial pole.
BREED	The right adrenal gland was indistinctly visualized, exhibiting mild prominent size and nonhomogeneous parenchyma, subjectively measuring 0.69 cm at the cranial pole and 0.58 cm at the caudal pole.
Shih Tzu	
SEX	Spleen
Spayed Female	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.
AGE	Liver
13 Years	The liver presented enlarged in size. The parenchyma of the liver was subjectively normal in echogenicity compared to the spleen and renal cortices. The liver parenchyma was uniform with a mildly coarse echotexture. The capsule of the liver was symmetrically rounded to mildly swollen in margination. The hepatic and portal vasculature were normal in appearance without signs of congestion.
WEIGHT	The gallbladder was non-distended in size with primarily anechoic luminal content. The cystic and common bile ducts were normal.
22 Pounds	
INTERPRETED BY	Gastrointestinal
R. McKenzie Daniel, DVM, DABVP (Canine and Feline)	The stomach presented intact wall layering with a normal wall layer ratio. The lumen of the stomach was empty with no signs of ileus, obstruction or foreign material.
IMAGING PERFORMED BY	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.
Tasha	
HOSPITAL NAME	Normal visible colon wall layers were present with apparent formed feces in lumen.
Dillsburg VC	Pancreas
REFERRING VET	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.
Dr. Amber	Free Abdomen
INVOICE	No overt lymphadenopathy or peritoneal effusion was present.
15109	ULTRASONOGRAPHIC FINDINGS
DATE	<ul style="list-style-type: none"> Overtly normal cardiac structure and function
5/9/22	



PATIENT

Cloe Katchur

- Mild chronic renal changes with intermittent cortical cysts
- Bilateral prominent adrenal glands- consistent with pituitary dependent hyperadrenocorticism
- Vacuolar hepatopathy pattern

SPECIES

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INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

No evidence of structural or functional cardiomyopathy without a definitive cause of the murmur identified. Given the patient age, potential for mild chronic degenerative valvular changes with secondary mitral valve insufficiency would be considered a primary differential diagnosis if the murmur is primarily left sided. Regardless, given the normal cardiac structure and function, the hemodynamic effects of the murmur appear to be mild. No indication for cardiac medications. Conservative monitoring of the murmur at this stage would be appropriate. Recheck echocardiogram suggested in 6 months or sooner if clinical signs arise.

Further renal staging to include urine C/S and protein: creatinine ratio on sterile urine sample may be considered. Periodic monitoring of hepatic enzymes is recommended.

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13 Years

WEIGHT

22 Pounds

INTERPRETED BY

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

IMAGING PERFORMED BY

Tasha

HOSPITAL NAME

Dillsburg VC

REFERRING VET

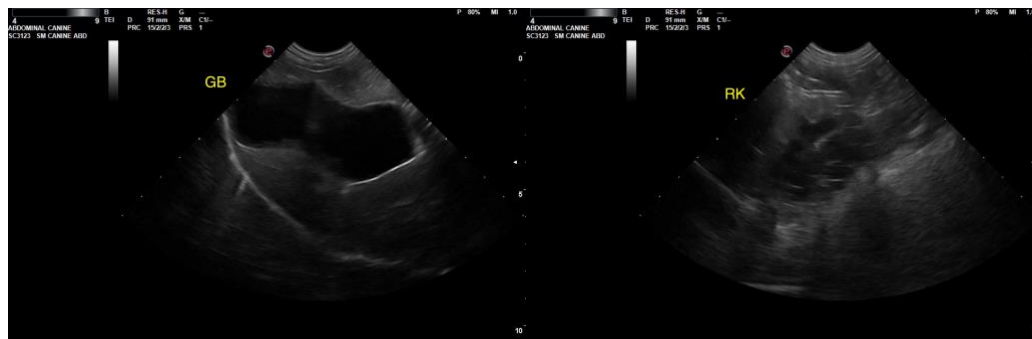
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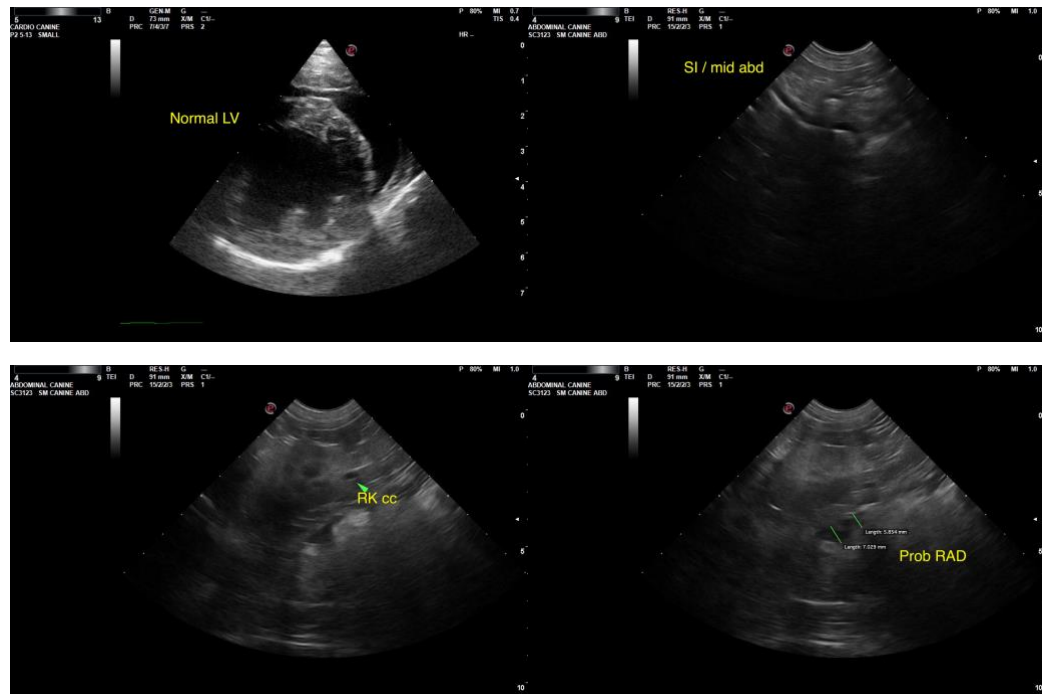
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The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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