


PATIENT

Beeker Hawk

PRESENTING CLINICAL SIGNS

History: chronic renal DZ; chronic murmur 1/6 left sided, 2/6 right sided. no symptoms. BP: 138, 140, 136

SPECIES

Feline

Abnormal PE/Chem/CBC/UA Results: Chronic renal DZ

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN AND HEART
BREED

DSH

SEX

MN

AGE

16

WEIGHT

11

FELINE CARDIAC PARAMETERS	BODY WEIGHT (kg)	HR (BPM)	IVSd (cm)	LVIDd (cm)	LVWd (cm)	FS (%)	EF (%)
NORMAL PARAMETER	-----	150-240	0.3-0.6	1.0-2.1	0.25-0.6	35-67	80-100
PATIENT		NM	0.57	1.2	0.54		
FELINE CARDIAC PARAMETERS	LA/AO (Boon)	LA/AO HEART BASE (Sisson)	LA 2D 4-chamber long axis AS to FW (Sisson) (cm)	LVOT VEL. (m/s)	RVOT VEL. (m/s)	IVRT (m/)	
NORMAL PARAMETER	<1.5	0.88-1.79	0.7-1.7	<1.6	<1.3	40-60	
PATIENT		1.2	1.2	NM	NM		
Adapted from June Boon, Veterinary Echocardiography, 1998							
Sisson D et al. JVIM 1991; 5: 232, Jacobs et al. Am J Vet Res 1985; 46:1705							

INTERPRETED BY

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

IMAGING PERFORMED BY

Tasha

HOSPITAL NAME

Dillsburg VC

REFERRING VET

Dr. Jacobs

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. Mildly prominent to remodeled papillary muscles were present. Contractility of the ventricular walls was adequate and in normal range for this breed and patient size. The left ventricular outflow tract demonstrated turbulent 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, cor pulmonale, stenosis, or overt 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 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.

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PATIENT	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 cortex echogenicity and mild loss of corticomedullary distinction expected for the age of the patient. No evidence of pelvic dilation was present. The left kidney measured 3.7 cm in length. The right kidney measured 4.0 cm in length.
Beeker Hawk	
SPECIES	
Feline	The area of the aortic trifurcation was free of pathology.
	Adrenal Glands
BREED	
DSH	The left adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The left adrenal gland measured 0.37 cm width. The right adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The right adrenal gland measured 0.34 cm width.
SEX	
MN	Spleen
	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	
16	Liver
	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 indistinctly visualized.
WEIGHT	
11	Gastrointestinal
INTERPRETED BY	
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 contained mild echogenic, nonshadowing ingesta without signs of obstruction or foreign material. The small intestine presented intact wall layering with 1:3 muscularis/mucosa ratio. The lumen of the small intestine contained nonshadowing ingesta/chyme with no signs of ileus, obstruction or foreign material.
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Tasha	Normal visible colon wall layers were present with apparent formed feces in lumen.
HOSPITAL NAME	Pancreas
Dillsburg VC	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.
REFERRING VET	Free Abdomen
Dr. Jacobs	No omental masses, overt lymphadenopathy or peritoneal effusion was present.
INVOICE	ULTRASONOGRAPHIC FINDINGS
11270ag	<ul style="list-style-type: none"> • Chronic interstitial nephrosis renal pattern • Gastrointestinal ingesta-probable post prandial presentation • Overtly normal cardiac structure and function with mild LV myocardial remodeling
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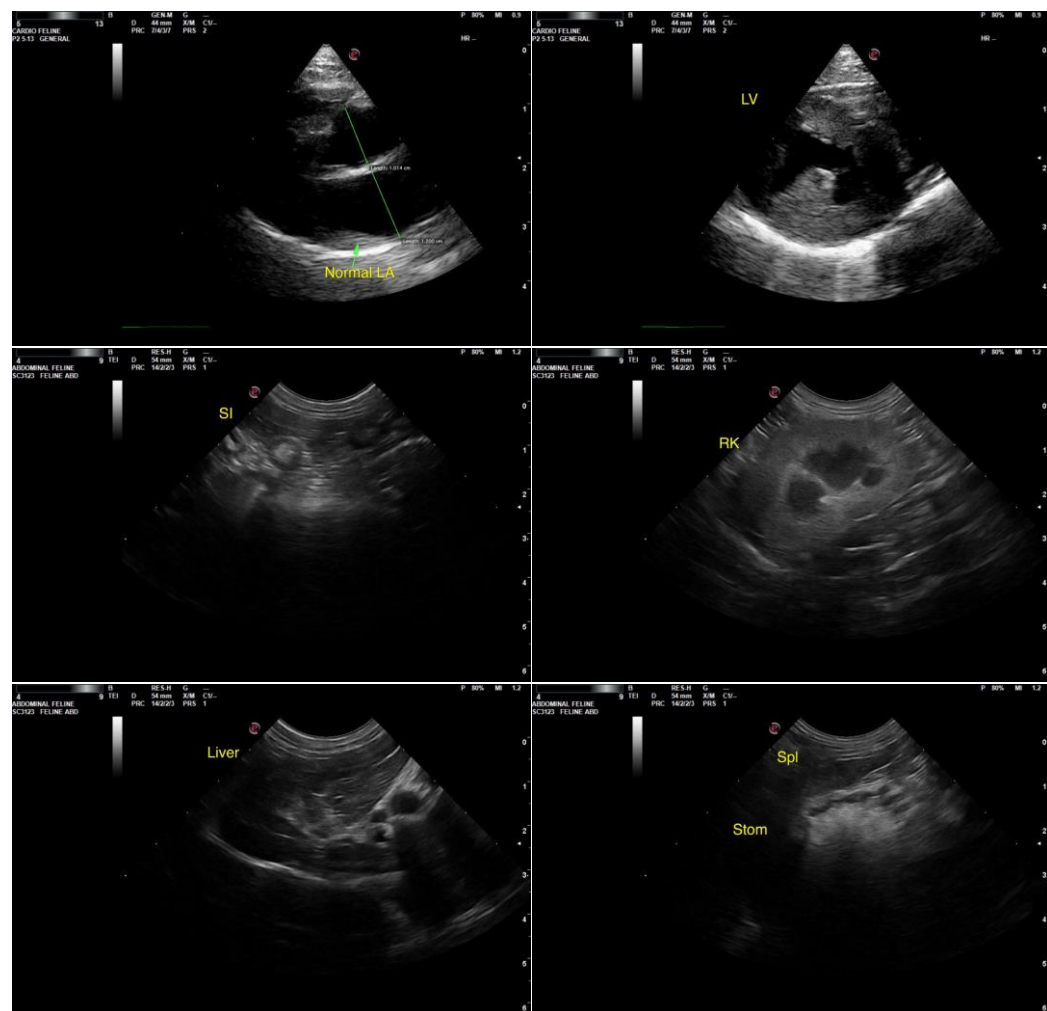
08/05/2022

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The appearance of the kidneys is consistent with reported chronic renal disease. Further renal staging to include urine C/S and protein: creatinine ratio on sterile urine sample may be considered. Continued monitoring of systemic BP is recommended. CRD therapy including dietary therapy and continued monitoring of renal parameters is recommended.

No evidence of additional abdominal visceral pathology was present on this scan.

A definitive cause of the murmur was not overtly evident. Assuming no evidence of anemia or volume changes such as dehydration a physiologic benign flow murmur is suspected. The hemodynamic effects of the murmur appear to be low at this time. The possibility of early to emerging HCM criteria cannot be definitively excluded. Monitoring of the murmur at this stage would be appropriate with recheck echocardiogram in 6 months, sooner if clinical signs arise. Assessment of T4 levels is suggested if not recently done.





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BREED

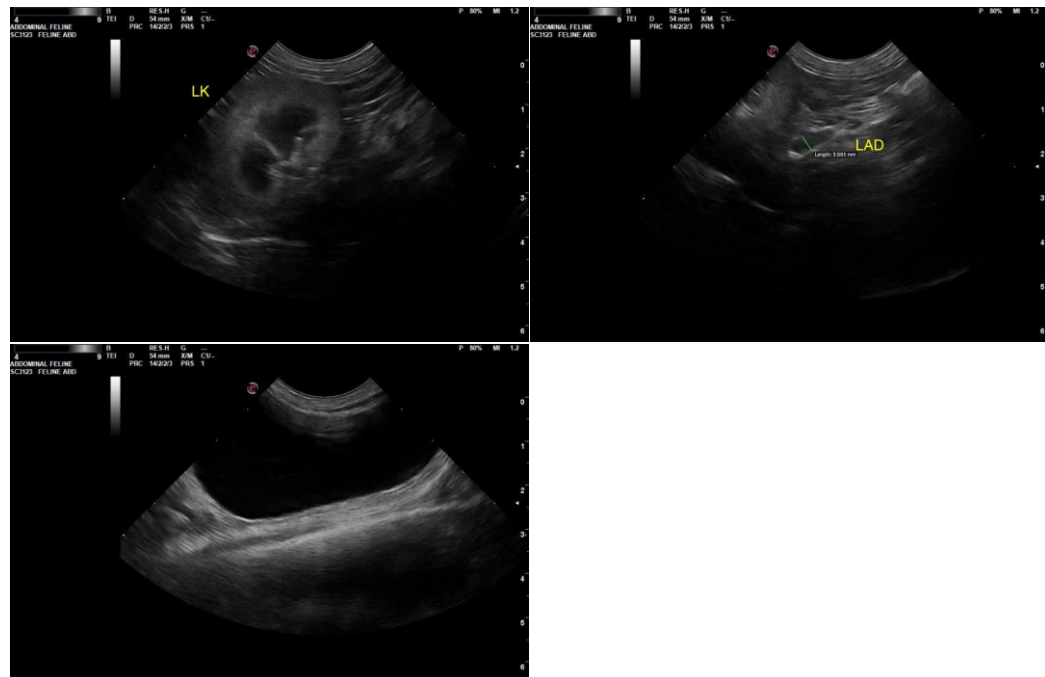
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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