



PATIENT

Daisy Mae Pal

SPECIES

Feline

BREED

DSH

SEX

FS

AGE

15 years

WEIGHT

Not Provided

INTERPRETED BY

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

IMAGING PERFORMED BY

Shari Reffi, CVT

HOSPITAL NAME

VCA Blairstown AH

REFERRING VET

Dr. Clegg

INVOICE

13007

DATE

1/10/22

PRESENTING CLINICAL SIGNS

Heart murmur and abnormal small lymphocytes noted on cbc. No current meds.
Abnormal PE/Chem/CBC/UA Results: Abnormal small lymphocytes noted on CBC.

ULTRASONOGRAPHIC EXAMINATION OF THE HEART & ABDOMEN

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		212	0.49	1.43	0.49	46.5	81.5
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	1.34	1.31	1.2	1.1	0.9	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							

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. **Contractility** of the ventricular walls was adequate and in normal range for this breed and patient size. The **left ventricular outflow** tract demonstrated normal 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 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 2.0 cm exhibited normal thickness and tone. Primarily anechoic urine was present in the lumen. Moderate, nondependent, particulate sediment was present without evidence of calculus formation. The ureteral papillae were normal. The ureters were not visible which is normal. No evidence of inflammatory or neoplastic mural changes were noted.



PATIENT	The area of the aortic trifurcation was free of pathology.
Daisy Mae Pal	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. Potential for minor medullary mineral in both kidneys is possible. No evidence of pelvic dilation was present. The left kidney measured 3.6 cm in length. The right kidney measured 3.6 cm in length.
SPECIES	
Feline	Adrenal Glands The left adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The left adrenal gland measured 0.33 cm width. The right adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The right adrenal gland measured 0.40 cm width.
BREED	
DSH	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. The spleen measured 0.72 cm width. No overt evidence of splenic neoplastic criteria was noted.
SEX	
FS	Liver/ Gallbladder 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 thin walls and primarily anechoic luminal content. The cystic and common bile ducts were normal.
AGE	
15 years	Gastrointestinal The visualized gastric walls were sonographically unremarkable. The lumen of the stomach contained moderate ingesta exhibiting progressive distal acoustic shadowing. The ventral gastric body wall width measured 0.22 cm. 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. The jejunum wall width measured 0.24 cm.
WEIGHT	
Not Provided	Normal visible colon wall layers were present with apparent formed feces in lumen.
INTERPRETED BY	
R. McKenzie Daniel, DVM, DABVP (Canine and Feline)	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.
IMAGING PERFORMED BY	
Shari Reffi, CVT	Free Abdomen No overt lymphadenopathy, omental masses or peritoneal effusion was present.
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ULTRASONOGRAPHIC FINDINGS

Primary Findings

- Overtly normal cardiac structure and function with minor myocardial remodeling
- Normal left atrium
- Moderate urinary bladder sediment
- Mild chronic renal changes
- Sonographically unremarkable gastrointestinal tract with progressively shadowing ingesta

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

No overt evidence of significant cardiomyopathy was noted. A definitive cause of the murmur was not readily evident. Assuming no evidence of volume changes i.e., dehydration or anemia, a physiologic flow murmur or potential small flow abnormality not visualized are possible. Regardless, no clinical issues such as systolic dysfunction or left or right heart chamber enlargement were present, indicating risk for future complications is low. No indication for cardiac medications was noted.

The urinary bladder sediment may suggest cellular / crystalline debris or mucus. Cystocentesis for UA +/- C/S if evidence of inflammatory cells is recommended.

The gastric ingesta may indicate recent meal ingestion. However, some degree of gastric stasis may be possible if documented NPO. Likewise, potential for hairball density, if a clinical history of hairballs, cannot be excluded.

No overt evidence of cardiac or abdominal cavity neoplastic criteria was noted. CBC pathology review, if not done, and in light of potential atypical lymphocytes may be considered.





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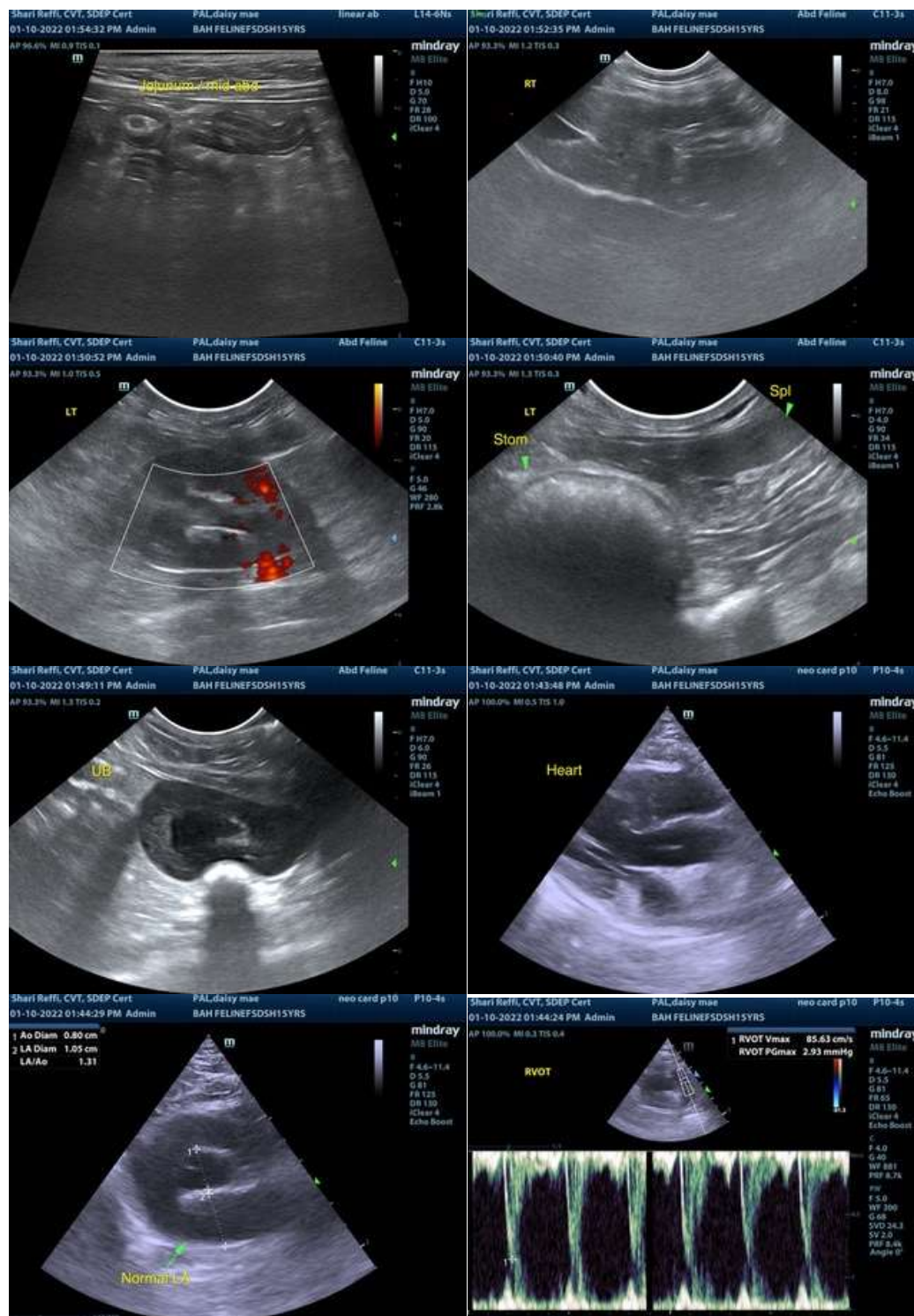
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The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.



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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.

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