



PATIENT

Fly Kalman

SPECIES

Canine

BREED

Husky Mix

SEX

FS

AGE

13 years

WEIGHT

16.4 kg

INTERPRETED BY

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

IMAGING PERFORMED BY

Dr. Callihan/Pacific
Crest

HOSPITAL NAME

Pacific Crest Mobile

REFERRING VET

Dr. Johnson/AEC

INVOICE

12734

DATE

12/4/21

PRESENTING CLINICAL SIGNS

Presented on ER last night for not acting normal at home, hiding under bed, seemed really tired, maybe leaning forward like she was going to fall, tired, didn't want treats, tail was down, tucked. Had a little diarrhea earlier today. Is on Galliprant (started 3 weeks ago), a flea product, and something for older dog cognition. Today was unusual day b/c she was locked downstairs w/ relatively new dog, who has separation anxiety, and was crying and trying to escape her kennel all day, which may have stressed Fly out. She is on k/d for early renal dz. Last UA was in September, history chronic UTIs. Abnormal PE/Chem/CBC/UA Results: Mild Fever 103.5, walking a little hunched, tail down (nsf rectal); BCS 4/9, nondistended abd, nontender abd; H: sinus arrhythmia, femoral pulses ss, normal blood pressure Labs showed mild nonregenerative anemia, HCT 30% (was 42% in September), mild neutrophilic leukocytosis, full chems just slight elev SDMA and else normal. A 4DX is neg 3-view thoracic radiographs are unremarkable UA is pending (I could not get the needle to go through the bladder wall)

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			NM	1.23	24.6	53.2	0.2
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	NM	1.1	0.8		2.7	2.6	

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 mildly subnormal as evidenced by the fractional shortening measurement. 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



PATIENT	assessment revealed normal valve structure, laminar flow, and diameter (approx. 1:1 pa/ao ratio). No dilation due to heartworm disease, cuor pulmonale, stenosis, or pulmonic hypertension was noted. No visible pericardial or free pleural fluid was noted. The mediastinum was free of masses in the visible window. Subjective bradycardia was present.
Fly Kalman	
SPECIES	
Canine	Urinary System
BREED	The urinary bladder, trigone, cystourethral junction, and visible pelvic urethra to a depth of 3.0 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 was noted.
Husky Mix	
SEX	No evidence of pathology associated with the uterine remnant was noted.
FS	The area of the aortic trifurcation was free of pathology.
AGE	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 pyelectasia was present. The left kidney measured 4.9 cm in length. The right kidney measured 4.8 cm in length.
13 years	
WEIGHT	
16.4 kg	Adrenal Glands
INTERPRETED BY	The left adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The left adrenal gland measured 0.64 cm width at the caudal pole and 0.7 cm width at the cranial pole. The right adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The right adrenal gland measured 0.46 cm width at the caudal pole and 0.7 cm width at the cranial pole.
R. McKenzie Daniel, DVM, DABVP (Canine and Feline)	
IMAGING PERFORMED BY	Spleen
Dr. Callihan/Pacific Crest	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 or benign parenchyma changes were not noted. No evidence of splenic neoplastic criteria was noted.
HOSPITAL NAME	
Pacific Crest Mobile	Liver/ Gallbladder
REFERRING VET	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, nondependent yet nonorganized gallbladder debris. The cystic and common bile ducts were normal.
Dr. Johnson/AEC	
INVOICE	
12734	Gastrointestinal
DATE	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. The gastric body wall width measured 0.46 cm.
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PATIENT

Fly Kalman

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 duodenum wall width measured 0.45 cm.

SPECIES

Canine

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

BREED

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Pancreas

The pancreas was normal in size and contour with isoechoic to heterogeneous parenchyma compared to adjacent omentum. No signs of active inflammation or neoplasia.

SEX

FS

Free Abdomen

No omental masses, lymphadenopathy or peritoneal effusion were present.

AGE

13 years

ULTRASONOGRAPHIC FINDINGS

Primary Findings

WEIGHT

16.4 kg

- Bilateral mild chronic renal changes
- Mild gallbladder debris (non-mucocele)
- Mildly heterogeneous pancreas - suggestive of age-related pancreatic changes and likely incidental, no evidence of active pancreatitis, potential for low-grade to chronic pancreatitis may be present yet ultrasonographically normal
- Normal echocardiogram for age with hypocontractility - systemic disease, hypothyroidism, athletic state, or emerging primary cardiomyopathy may present in this fashion assuming no sedation, DCM criteria is not present
- Subjective bradycardia

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INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Overall, an obvious cause of the patient's clinical signs was not definitively evident either in the echocardiogram or abdominal study. Largely geriatric abdomen without evidence of significant visceral pathology.

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ECG is recommended for further assessment of the subjective bradycardia. No overt indication for cardiac medications given the lack of left atrium enlargement as well as no evidence of clinical pulmonary hypertension.

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If not done, a thorough muscular/skeletal and neurological examination is recommended. CBC Pathology review, given the anemia, may be considered.

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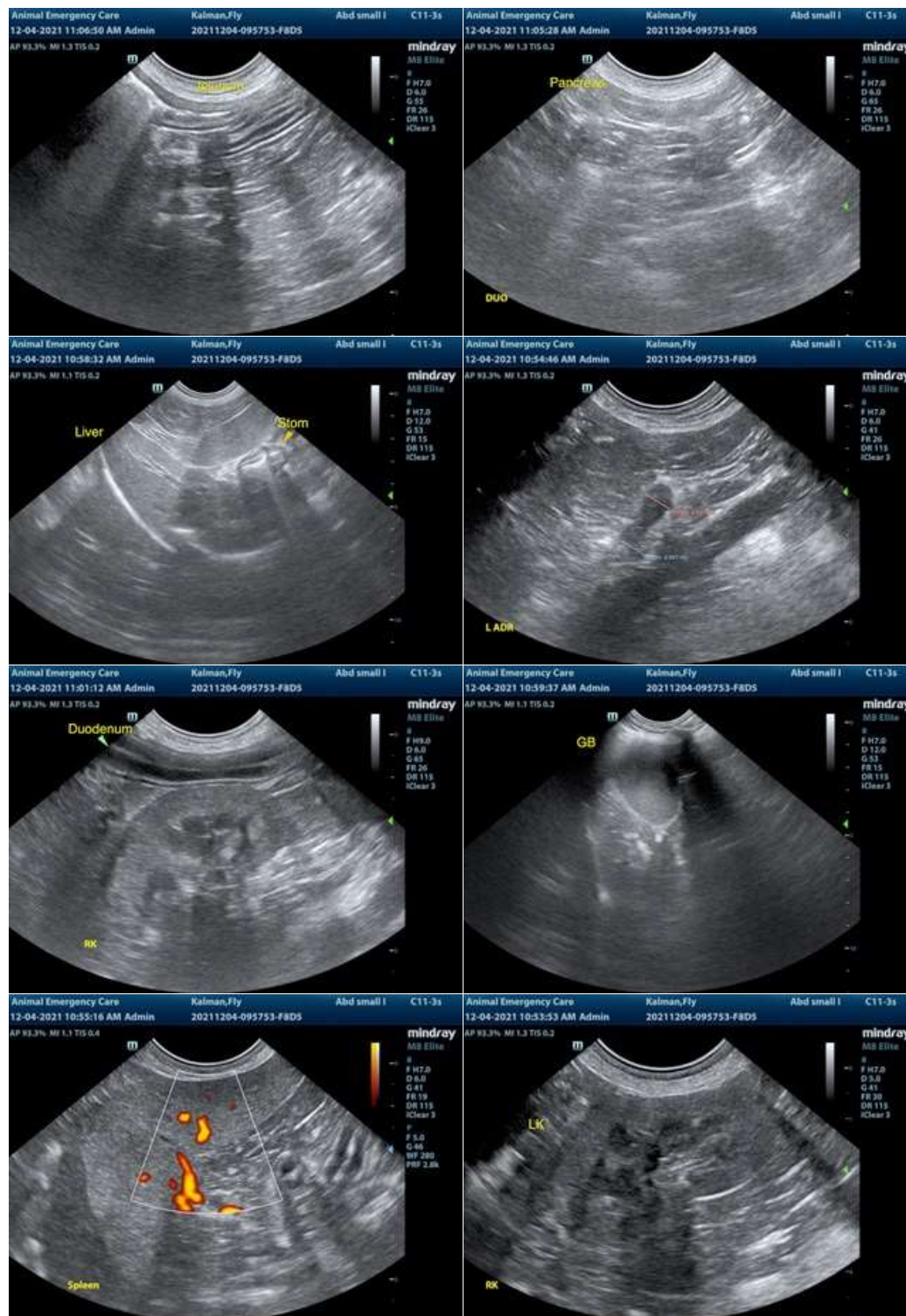
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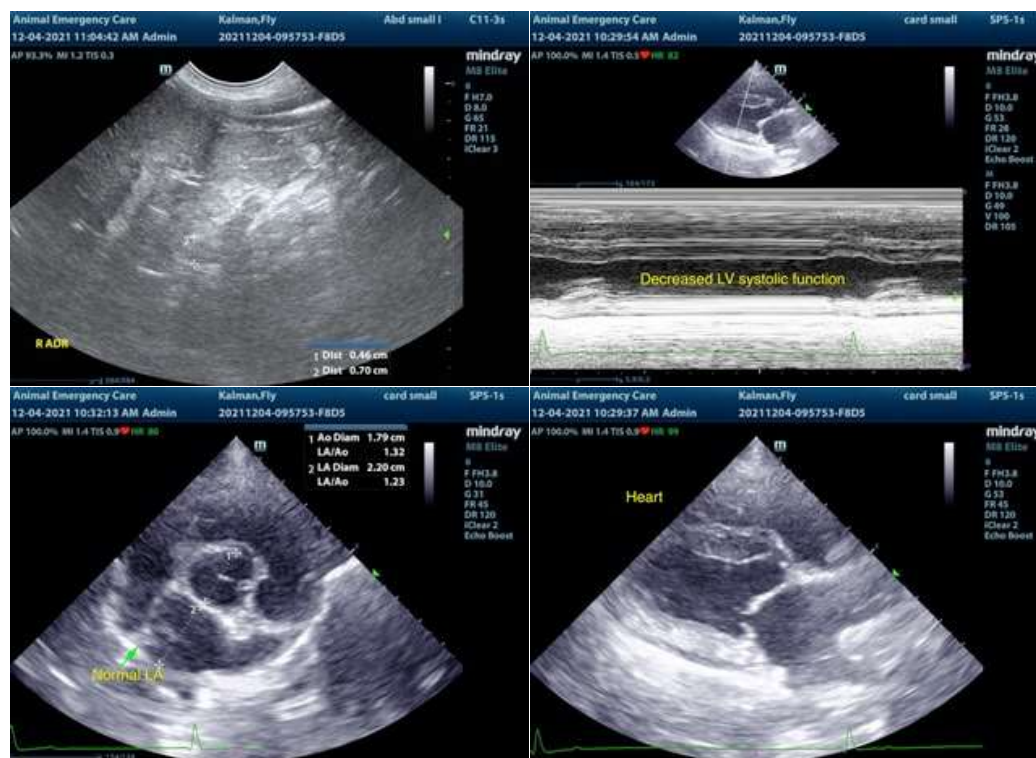
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The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

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