


PATIENT

Treebie Goldstein

PRESENTING CLINICAL SIGNS

Hyporexic, diabetic.

SPECIES

Feline

Current meds: Glargine insulin, Cernia, Prednisone (asthmatic), Mirataz

Abnormal PE/Chem/CBC/UA Results: WBC 17.7, Neu 14.5

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN AND HEART
BREED

DSH

SEX

MN

AGE

11yr

WEIGHT

NA

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		214	0.51	1.44	0.50	49	84
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	1.3	1.3	1.0	0.75		
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)

Cardiac Presentation

The echocardiogram in this patient demonstrated normal left atrial size based on 3 separate LA measurements. The cranial and caudal mitral valve leaflets presented normal linear structure and kinetics. The left ventricular septum and free wall revealed normal thicknesses, reduced contractility and mildly reduced left ventricular volume with subjective reduced diastolic filling. Some echogenic remodeling of the septum and free wall was present. This is most consistent with some level of myocardial fibrosis which does not appear to be a functional issue and is suggestive of mild LV myocardial remodeling. The left ventricular outflow tract demonstrated normal laminar flow and subjective structural integrity. The right atrium and auricle revealed increased size and normal content. No evidence of masses was noted or chamber overload. Tricuspid valvular assessment demonstrated adequate linear morphology and kinetics. 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).

IMAGING PERFORMED BY

Shari Reffi CVT

HOSPITAL NAME

 VCA Blirstown
 Animal Hospital

REFERRING VET

Dr. Summers

No visible pericardial fluid was noted. Mild to moderate pleural effusion was present. No cardiac tumors. Ill-defined primarily uniform soft tissue pericardial and caudal thoracic echoes were present, an example measuring ~ 3.5 cm in diameter. The echoes were similar in echogenicity and echotexture to the adjacent cranial abdominal liver.

INVOICE

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Urinary System

The urinary bladder, trigone, cystourethral junction, and visible pelvic urethra exhibited normal thickness and tone. Anechoic urine was present in the lumen with no uroliths or sediment. The ureteral

DATE

05/01/2023



PATIENT	papillae were normal. The ureters were not visible which is normal. No evidence of inflammatory or neoplastic changes were noted.
Treebie Goldstein	
SPECIES	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 minor loss of corticomedullary symmetry and definition expected for the age of the patient. No evidence of pelvic dilation was present. The left kidney measured 4.0 cm in length. The right kidney measured 4.1 cm in length.
Feline	
BREED	The area of the aortic trifurcation was free of pathology.
DSH	
SEX	Adrenal Glands
MN	The left adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The left adrenal gland measured 0.47 cm width. The right adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The right adrenal gland measured 0.51 cm width.
AGE	Spleen
11yr	The spleen exhibited normal size and contour with minor parenchyma heterogeneity with discrete to subtle hypoechoic micronodular changes. The spleen measured 0.82 cm in width at the level of the mid spleen.
WEIGHT	Liver/Gallbladder
NA	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.
INTERPRETED BY	The diaphragm appeared to be overtly intact with the complete liver subjectively present in the abdominal cavity.
R. McKenzie Daniel, DVM, DABVP (Canine and Feline)	The gallbladder was non-distended in size with thin walls and primarily anechoic luminal content. The cystic and common bile ducts were normal.
IMAGING PERFORMED BY	Gastrointestinal
Shari Reffi CVT	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.
HOSPITAL NAME	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.
VCA Blairstown Animal Hospital	Normal visible colon wall layers were present with apparent formed feces in lumen.
REFERRING VET	Pancreas
Dr. Summers	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.
INVOICE	Free Abdomen
13680ag	No omental masses, overt lymphadenopathy or peritoneal effusion was present.
DATE	ULTRASONOGRAPHIC FINDINGS
05/01/2023	<ul style="list-style-type: none"> Overtly normal cardiac structure and function with minor LV myocardial remodeling.



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- Normal left atrium.
- Non-cardiogenic pleural effusion.
- Pericardial to intra-thoracic soft tissue echoes.
- Normal splenic size exhibiting subtle micronodular parenchyma.
- Otherwise sonographically unremarkable abdomen.

SPECIES

Feline

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

BREED

DSH

The subtle splenic parenchyma changes were non-specific with considerations including age related benign nodular to lymphoid hyperplasia, however early infiltrative neoplasia i.e., lymphoma or mast cell neoplasia cannot be entirely ruled out. Correlation with pending splenic cytology is suggested.

SEX

MN

Considerations for the pleural effusion may include infectious/inflammatory disease, primary pulmonary pathology, neoplasia or other without evidence of congestive heart failure. A small to lobar diaphragmatic hernia is considered an unlikely differential as the liver appeared to be overtly normal within the abdominal cavity. Thoracocentesis with pleural effusion analysis cytology +/- C/S with concurrent FNA cytology of pericardial to thoracic soft tissue echoes is warranted for further clarification. Thoracic CT is likely ideal for further assessment.

AGE

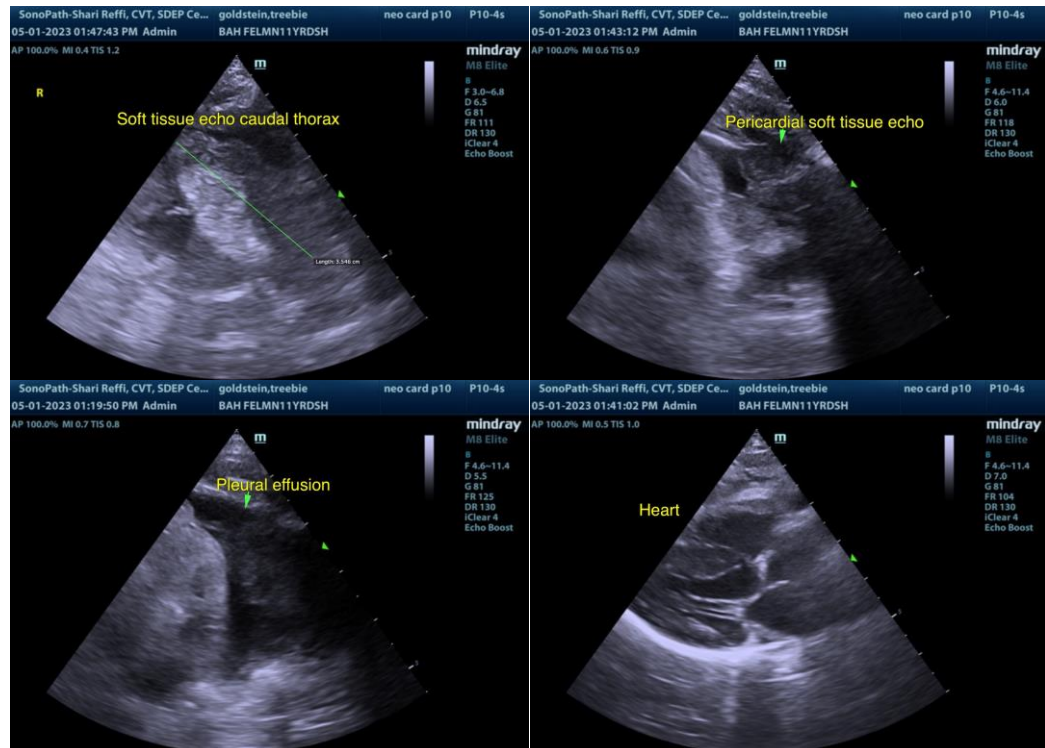
11yr

WEIGHT

NA

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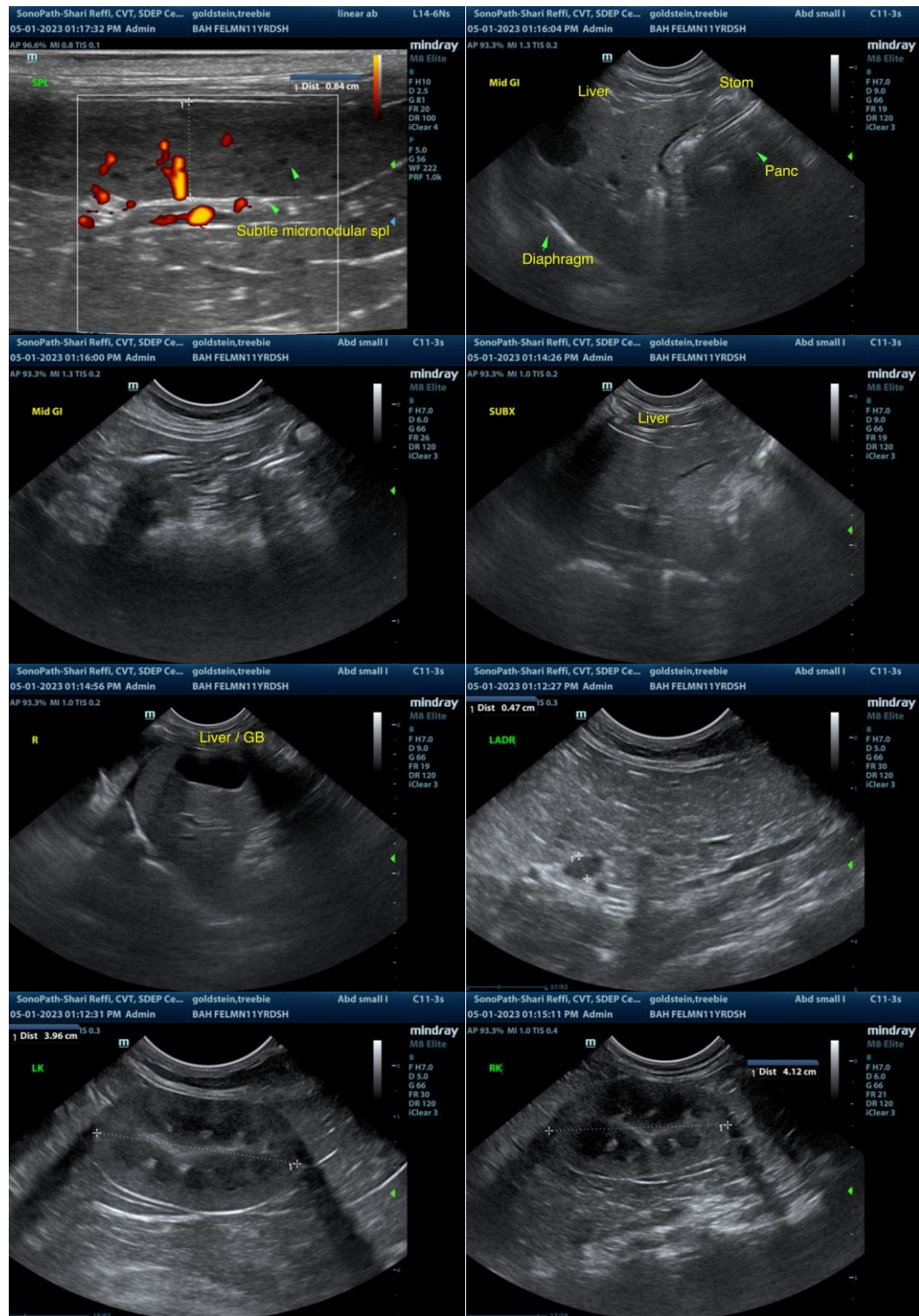
Dr. Summers

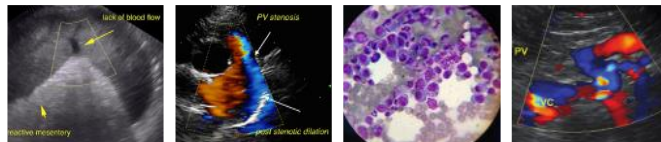
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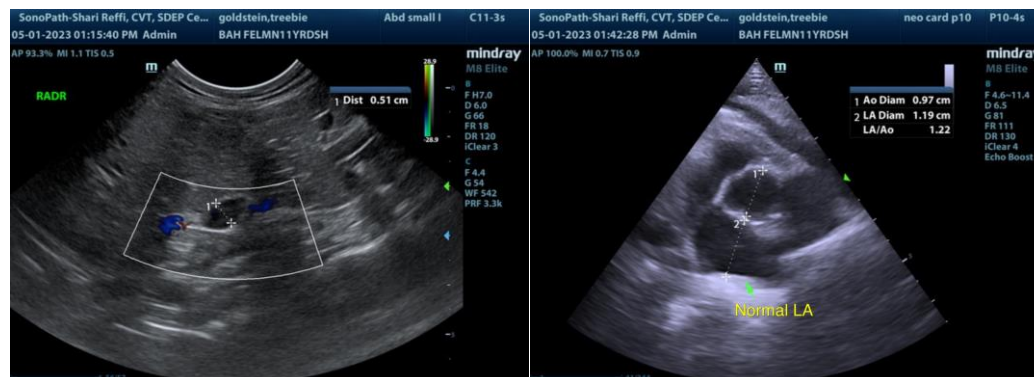
Dr. Summers

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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.

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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