


PATIENT

Socks Geraghty

PRESENTING CLINICAL SIGNS

Pericardial and peritoneal effusion, Pericardiocentesis 9/10/2022. Fluid analysis pending (no pleural fluid noted at time of centesis)

SPECIES

Canine

Abnormal PE/Chem/CBC/UA Results: HCT 59, PCV 64%, WBC 33.74, NEUT 30.18, BUN 35.8, PHOS 10.2, TP 4.7 (5.5 L); GLOB 1.9 (2.0L); CL 95 (102 L)

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN AND HEART
BREED

Boston Terrier

SEX

MN

AGE

10yr

WEIGHT

32lb

| 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 | | 2.4 | 1.48 | 1.48 | 33 | 62.8 | 0.36 |
| 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 | 102 | 1.4 | 1.1 | | 3.1 | 3.3 | |

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 different LA measurement methods. Chamber volumes and echogenicity were normal. The cranial and caudal mitral valve leaflets presented minor vegetative thickening consistent with minor endocardiosis. Doppler indicated mild eccentric insufficiency. 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 or chamber overload. Tricuspid valvular assessment demonstrated mild thickening with mild TR on Doppler. 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). Scant to minor pericardial and free pleural fluid was visualized. No visible pericardial or free pleura fluid was noted. The cranial mediastinum and pericardial regions were free of masses in the visible window.

IMAGING PERFORMED BY

Shari Reffi CVT

HOSPITAL NAME

Newton Vet

REFERRING VET

Dr. Kim

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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.

DATE

09/12/2022



| | |
|--|---|
| 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 echogenicity and mild loss of corticomedullary symmetry and definition expected for the age of the patient. No evidence of pelvic dilation was present. The left kidney measured 5.6 cm in length. The right kidney measured 5.6 cm in length. |
| Socks Geraghty | |
| SPECIES | |
| Canine | The area of the aortic trifurcation was free of pathology. |
| | No overt pathology in the area of the residual prostate. |
| BREED | |
| Boston Terrier | The area of the iliac trifurcation was free of pathology including no evidence of medial, iliac or sublumbar lymphadenopathy or masses. |
| | Adrenal Glands |
| SEX | The bilateral adrenal glands exhibited borderline prominent size with areas of minor capsule asymmetry |
| MN | Mild non-homogeneous to indistinctly nodular parenchyma without evidence of mineralization. |
| | The left adrenal gland measured 0.68 cm width at the caudal pole and 2.3 cm length. The right adrenal gland measured 0.67 cm width at the caudal pole and 2.5 cm length. |
| AGE | |
| 10yr | Spleen |
| | The spleen exhibited a finely textured and homogenous parenchyma which was hyperechoic to the liver and renal cortical parenchyma. Mild prominent caudal spleen exhibiting discrete uniform hypoechoic parenchyma was present measuring ~ 2.7 cm x 1.1 cm. 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. |
| WEIGHT | |
| 32lb | |
| INTERPRETED BY | |
| R. McKenzie Daniel, DVM, DABVP (Canine and Feline) | Liver |
| | The liver was subjectively borderline to mildly enlarged with normal 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 caudal vena cava appeared to exhibit normal size and volume. |
| IMAGING PERFORMED BY | |
| Shari Reffi CVT | The gallbladder was non-distended in size with thin walls and primarily anechoic luminal content. The cystic and common bile ducts were normal. |
| HOSPITAL NAME | |
| Newton Vet | Gastrointestinal |
| | 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. |
| REFERRING VET | |
| Dr. Kim | 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. |
| | Normal visible colon wall layers were present with apparent formed feces in lumen. |
| INVOICE | |
| 11614ag | Pancreas |
| | The pancreas was normal in size with areas of mild capsule asymmetry and non-uniform hyperechoic parenchyma. |
| DATE | |
| 09/12/2022 | Free Abdomen |



PATIENT

Socks Geraghty

A small pocket of scant free fluid noted in the cranial abdomen adjacent to the liver. No overt lymphadenopathy was present.

SPECIES

Canine

ULTRASONOGRAPHIC FINDINGS

Primary

BREED

Boston Terrier

- Overtly normal cardiac structure and function
- Minor MR/TR-no evidence of clinical pulmonary hypertension
- Discretely prominent to hypoechoic caudal spleen-hyperplasia, hematopoiesis, splenitis etc. possible. Neoplastic criteria considered unlikely
- Non-congested liver
- Prominent to irregular bilateral adrenal glands-non-specific, patient vs age related variant, adenomatous change, minor benign hyperplasia possible
- Pancreatic remodeling, potential for fibrosis-possible chronic pancreatitis
- Non-cardiogenic scant pericardial, pleural and peritoneal effusion

SEX

MN

AGE

10yr

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Given normal ALB levels the tri-cavitary non-cardiogenic effusion may be secondary to previous cardiac tamponade given reported peri-cardiac effusion although other contributing factors cannot be excluded. A definitive mass was not visualized yet small lesions may be difficult to visualize and cannot be definitively excluded. Correlation with pending effusion analysis cytology +/- C/S if clinically indicated is suggested. Sonographic reassessment of the heart if pericardial effusion recurs for more definitive assessment of the heart base as well as monitoring of the bilateral adrenal glands would be reasonable. Screening BP to assess for evidence of hypertension is recommended.

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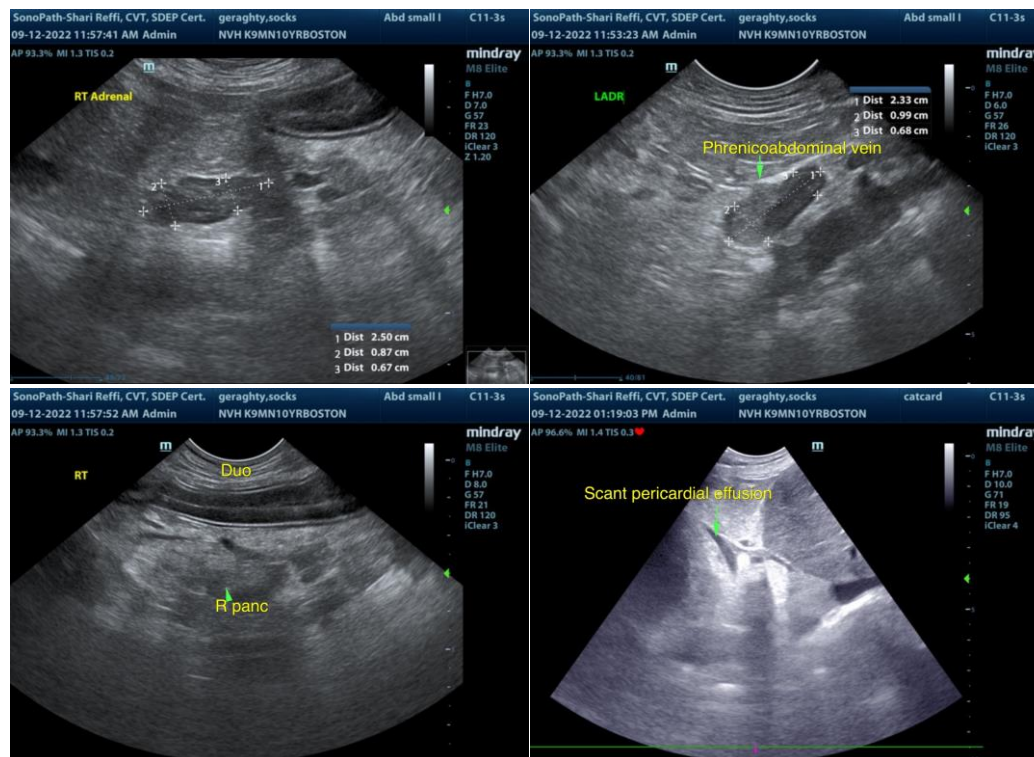
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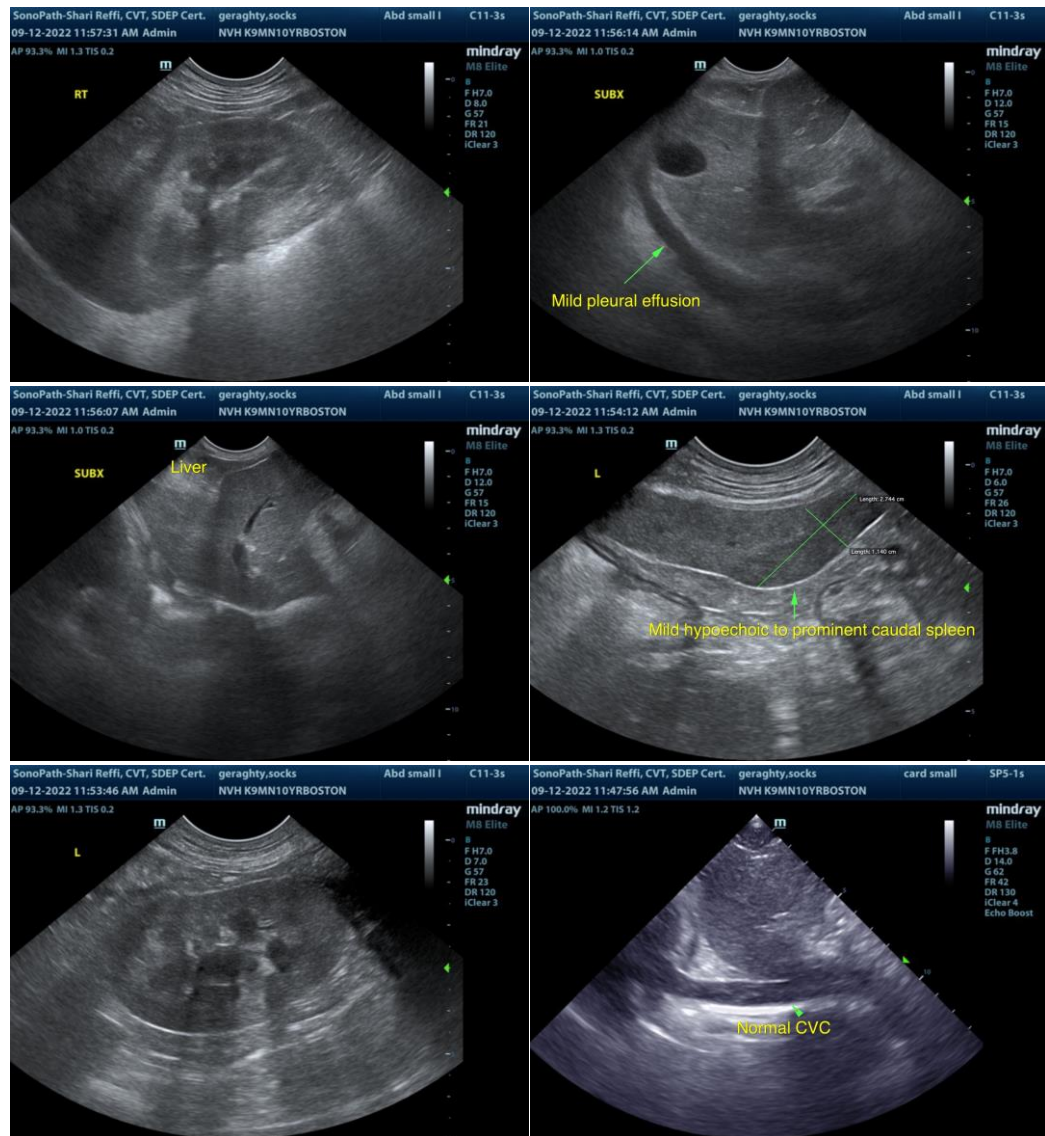
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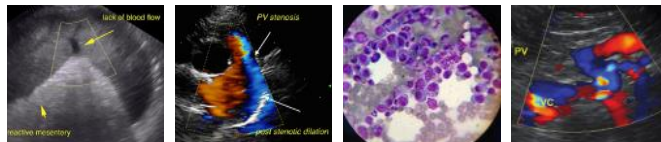
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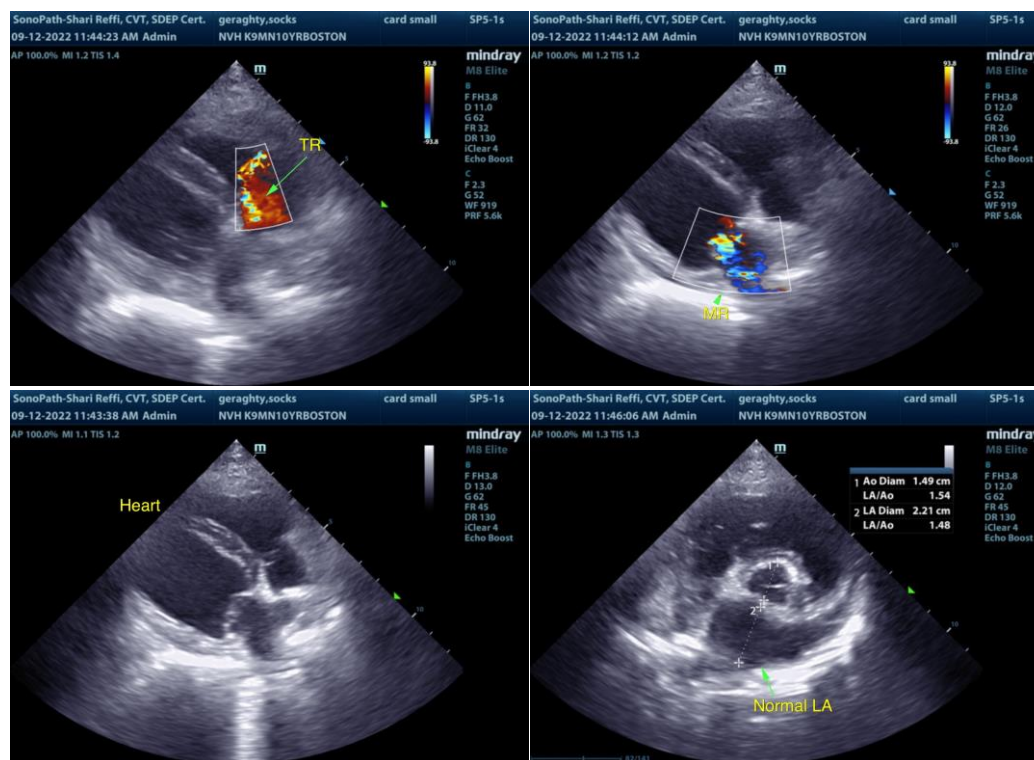
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

R. McKenzie Daniel, DVM, DABVP (Canine / Feline Practice)

info@SonoPath.com