



PATIENT

Rock Fumarola

SPECIES

Canine

BREED

American Bulldog

SEX

Male Neutered

AGE

12y

WEIGHT

68 lbs

INTERPRETED BY

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

IMAGING PERFORMED BY

Meghan Morse, LVT,
 CVT

HOSPITAL NAME

Hamptonburgh AH

REFERRING VET

Dr. Roges

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DATE

3/19/26

PRESENTING CLINICAL SIGNS

History:

- r/o CHF
- Grade 3/6 systolic murmur, abdominal distension, coughing especially at night
- Current meds: Enalapril, Vetmedin, less than 1 week Furosemide

Abnormal PE/Chem/CBC/UA Results: ALKP 678, SDMA 15.1, WBC 18.2, bands 364, lymph 9820
 U/A: trace protein, usg 1.016

ULTRASONOGRAPHIC EXAMINATION OF THE HEART & ABDOMEN

CANINE CARDIAC PARAMETERS	MR VMAX (m/s)	TR VMAX (m/s)	LA/AO (M-Mode)	LA/AO (Heart Base; Swe)	FS (%)	EF (%)	EPSS (cm)
NORMAL PARAMETER	4.5-5.5	<2.7	1.3	Up to 1.6	28-40	40-100	<0.6
PATIENT	--	~4.0	--	1.5	35	68	0.1
CANINE CARDIAC PARAMETERS	HR (BPM)	AV VMAX (m/s)	PV MAX (m/s)	BODY WEIGHT (kg)	LAD LA MAX 4 Chamber	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	NM	1.3	0.95	--	3.3	3.0	--

Cardiac Presentation

The echocardiogram in this patient demonstrated normal **left atrial** size and structure. 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. No significant MR noted on doppler. The **left ventricle** presented normal free wall and septal thicknesses with primary linear contour and flattened IBS. 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. Assessment of the **right atrium** and auricle revealed moderate increased right atrium and auricle dimension with normal structure and content. No evidence of masses was noted. **Tricuspid** valvular assessment demonstrated thickening with TR noted on doppler. Measured TR velocity was ~4.0 m/s (estimated 64 mmHg). The **right ventricle** presented moderate increased dimension compared to the LV with normal echogenicity and free wall thickness. **Pulmonic** tract assessment revealed normal valve structure, laminar flow, and with mild increased diameter compared to the aorta. No visible **pericardial** or free pleural fluid was noted. Heart base mass



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was noted primarily in the area of the left atrium exhibiting non-homogeneous parenchyma and measuring ~7.0 cm x 4.0 cm.

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Urinary System

The urinary bladder, trigone, and cystourethral junction 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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The area of the residual prostate appeared normal and free of pathology.

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The area of the aortic trifurcation was free of pathology.

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Normal size and margination was present in the left kidney with subnormal size present in the right kidney compared to the left. 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. Mild medullary mineral was present. The left kidney measured 6.2 cm in length. The right kidney measured 5.3 cm in length.

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Adrenal Glands

The left adrenal gland was indistinctly visualized. The right adrenal gland was not definitively visualized.

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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.

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Liver

The liver was asymmetrically enlarged in size. The liver exhibited multifocal, variably sized, thinly walled intraparenchymal cysts containing primarily anechoic fluid. The cranial abdomen caudal vena cava presented overtly normal in volume with adequate hepatic vascular volume. The gallbladder was indistinctly visualized given similar appearance to hepatic cysts.

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Gastrointestinal

The stomach presented intact wall layering with a normal wall layer ratio. The lumen of the stomach was contained minor, segmental, non-obstructive ileus.

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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.

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



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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 was evident.

Free Abdomen

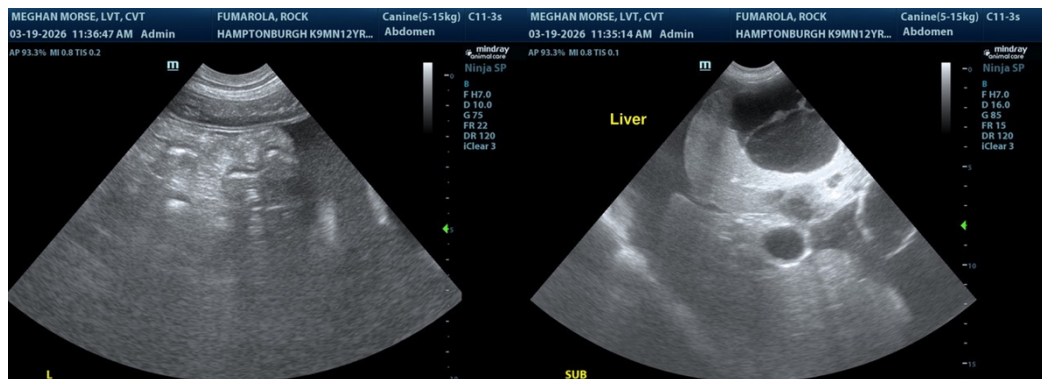
Significant volume peritoneal effusion was present. Indistinctly visualized homogeneous lesion area of the left adrenal gland and medial to the left kidney measuring ~2.2 cm in diameter.

ULTRASONOGRAPHIC FINDINGS

- Heart base mass
- Moderate pulmonary hypertension with RA/RV/pulmonary artery enlargement
- Normal LA/LV
- Enlarged polycystic liver
- Normal spleen
- Possible unspecified lesion area of the left adrenal gland
- Significant volume peritoneal effusion
- Chronic renal changes exhibiting mild medullary mineral

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The heart-based mass is consistent with neoplastic criteria with considerations including sarcoma, chemodectoma or other. Although no overt evidence of hepatic congestion, the degree of right sided cardiomegaly and moderate pulmonary hypertension consistent with congestive heart failure. Contributing factors to the peritoneal effusion may be primary hepatic disease and portal hypertension. Correlation with effusion analysis may be considered. Empirical therapy for congestive right heart failure and pulmonary hypertension is recommended. Unfavorable prognosis unfortunately indicated.





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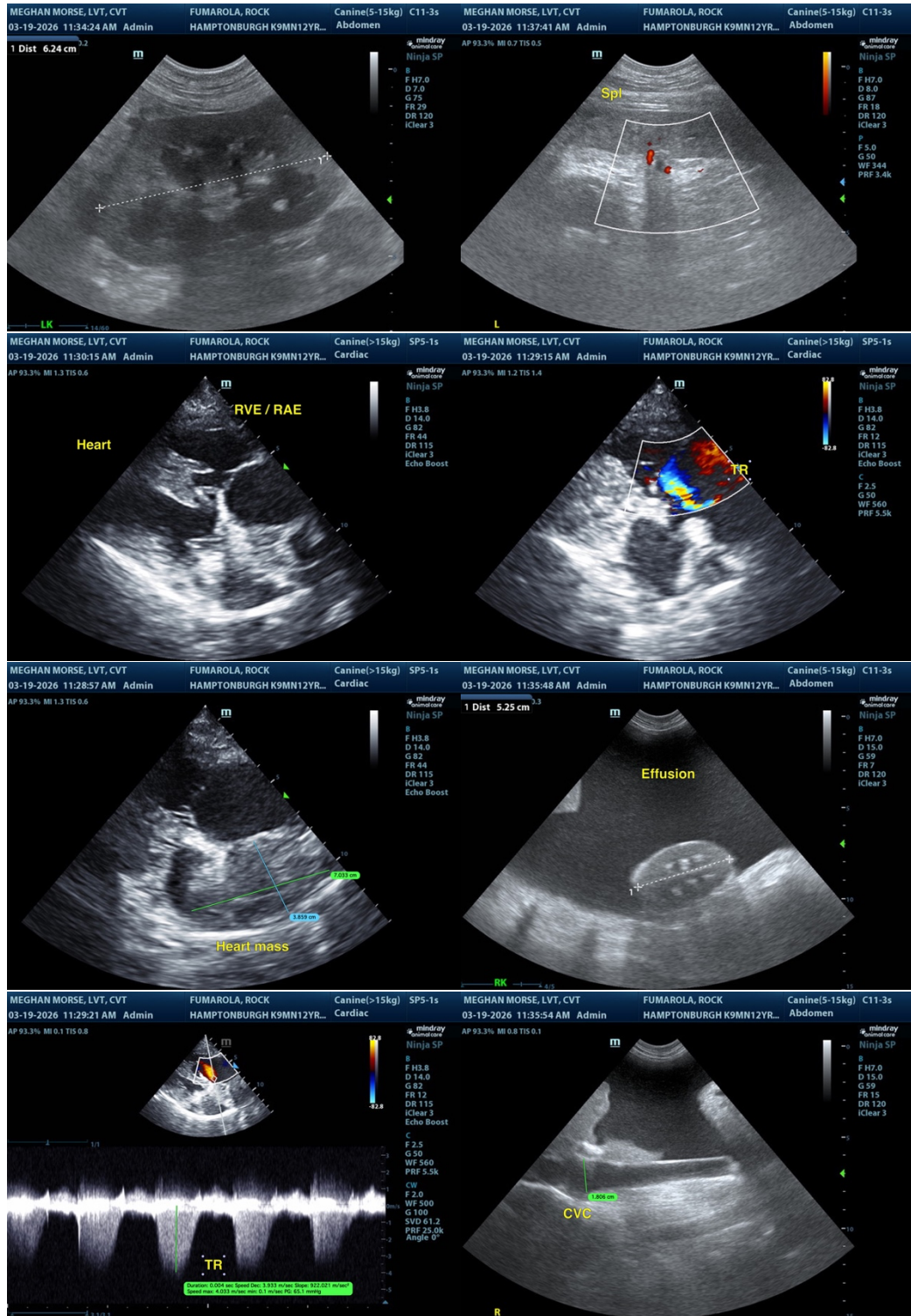
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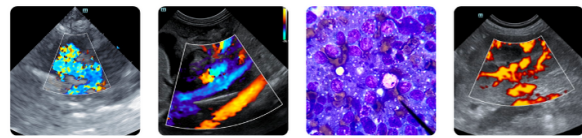
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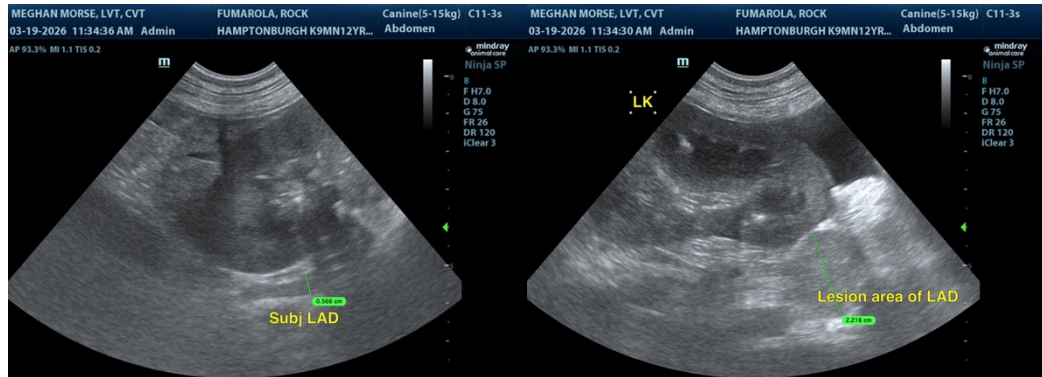
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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)

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