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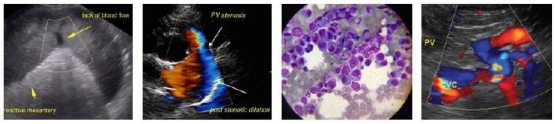


THE FOCAL ZONE
IMAGING PERFORMED BY
289-808-2608 info@thefocalzone.com

PATIENT

Tucker Patrick

SPECIES

Canine

BREED

Burnese Mtn Dog

SEX

MI

AGE

7 years

WEIGHT

28 kg

INTERPRETED BY

R. McKenzie Daniel, DVM, DABVP

IMAGING PERFORMED BY

Kelly Reschny

HOSPITAL NAME

Windrush VS

REFERRING VET

Dr. Murdoch

INVOICE

13966

DATE

6/1/22

PRESENTING CLINICAL SIGNS

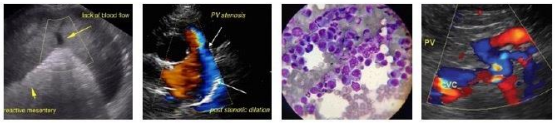
Was seen at Hamilton emerg 05/20: 1. anorexia 2. vomiting 3. wheezing cough, progressive over past 2 months 4. mildly enlarged, asymmetrical prostate (non painful) 5. Hx lyme positive (asymptomatic historically) 6. lip licking over past 2 months 7. weight loss, 7lbs 8. lethargy 9. hypertensive 10. mydriasis 11. episcleral injection 12. retinal lesions? Differential diagnosis: lyme disease/nephritis, pancreatitis, aspiration pneumonia, gastroenteritis, metabolic (hepatopathy, pyelonephritis, other), neoplasia Rechecked here where O reported pet doing better recheck quant c6 and thyroid level sent out. meds: Doxycycline 300 mg SID, Gabapentin 300mg TID,
Abnormal PE/Chem/CBC/UA Results: BP recordings: 206/179 (185) 232 194/117 (142) 197 201/148 (152) 224 153/133 (137) 166 109/73 (85) 96 Please see attached rads and labs

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	<1.3	28-40	40-100	<0.6
PATIENT				1.0	38.4	70.2	0.4
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	109	1.4	1.1		4.0	3.8	

Cardiac Presentation

The echocardiogram in this patient demonstrated normal **left atrial** size based on 3 separate methods of LA evaluation. The cranial and caudal **mitral** valve leaflets presented normal linear structure, extension in systole, and union in diastole with normal kinesis. 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



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evidence of masses was noted. **Tricuspid** valvular assessment demonstrated adequate linear morphology and kinesis. The **right ventricle** was of normal size (1/3 diameter of LV), chordae structure, myocardial echogenicity and thickness. **Pulmonary outflow** tract assessment revealed normal valve structure, laminar flow, and diameter (approx.1:1 pa/ao ratio). No visible **pericardial** or free pleura fluid was noted. The cranial **mediastinum and pericardial and extra-cardiac regions** were free of masses in the visible window.

Urinary System

The urinary bladder, trigone, and cystourethral junction 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.

The prostate was enlarged in size with intact, symmetrical capsule contour. The margins of the gland were intact and able to be differentiated from the surrounding tissue. The prostatic parenchyma was mildly echogenic to heteroechoic without parenchymal mineralization. The prostate measured 5.5 cm x 4.7 cm. Small intermittent parenchyma cysts were present.

The area of the aortic trifurcation was free of pathology.

Normal size and margination were present in the kidneys. A normal 1:3 cortex / medulla ratio was maintained. Mild loss of corticomedullary border demarcation was present with no evidence of pyelectasia. The left kidney measured 6.5 cm in length. The right kidney measured 6.7 cm in length.

Adrenal Glands

The left adrenal gland was visualized exhibiting overall normal size, position, and shape subjective measuring 0.56 cm width at the cranial pole, and 0.64 cm width at the caudal pole. In the area of the left adrenal gland, an ill-defined mixed echogenic mass lesion measuring approximately 5.0-6.0 cm In diameter was present. Subtle evidence of associated regional inflammation is suspected. The right adrenal gland was not definitively visualized.

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.

Liver/ Gallbladder

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. The gallbladder was non-distended in size with thin walls and primarily anechoic luminal content. The cystic and common bile ducts were normal.

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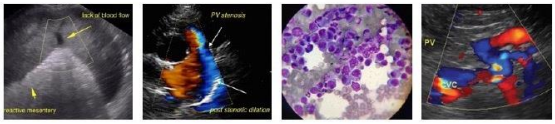

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Gastrointestinal

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.

The small intestine presented intact wall layering with 1:3 muscularis/mucosa ratio. Minor areas of jejunal ileus were noted. No evidence of mechanical obstructive pattern, loss of intestinal wall layering, or foreign material was noted.

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

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.

Free Abdomen

No overt evidence of significant intraabdominal lymphadenopathy or peritoneal free fluid was present.

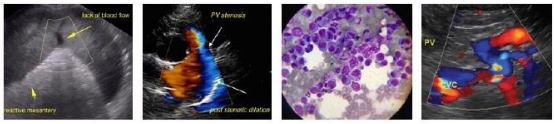
ULTRASONOGRAPHIC FINDINGS

- Normal echocardiogram
- Benign prostatic hyperplasia with intermittent small parenchymal cysts, minor potential for prostatitis possible
- Nonspecific chronic renal changes
- Ill-defined mixed echogenic mass lesion In the area of adrenal glands
- Suspect gastroenteritis

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Overtly normal cardiac structure and function without evidence of clinical issues such as LV systolic dysfunction left or right heart chamber enlargement, significant valvular insufficiencies/stenotic disease, or evidence of clinical pulmonary hypertension. Given this presentation, the respiratory abnormalities in this patient are not consistent with cardiogenic respiratory abnormalities. Upper or lower primary airway disease is likely. No Indication for cardiac medications is evident.

Although not definitive, high suspicion for adrenal neoplastic criteria, given the ill-defined mass lesion in the area of the adrenal glands, non-visualization of the right adrenal gland, and hypertension. However, alternative pathologies are possible. Given the lack of other signs of intraabdominal pathology, as well as lack of evidence of cardiac disease, the ill-defined mass lesion is suspected to be the primary cause of the patient's clinical signs. Abdominal CT is strongly recommended for further assessment and clarification of this ill-defined mass lesion. Urine catecholamine levels, as well as baseline UPC despite no evidence of proteinuria on most recent urinalysis, could be considered.



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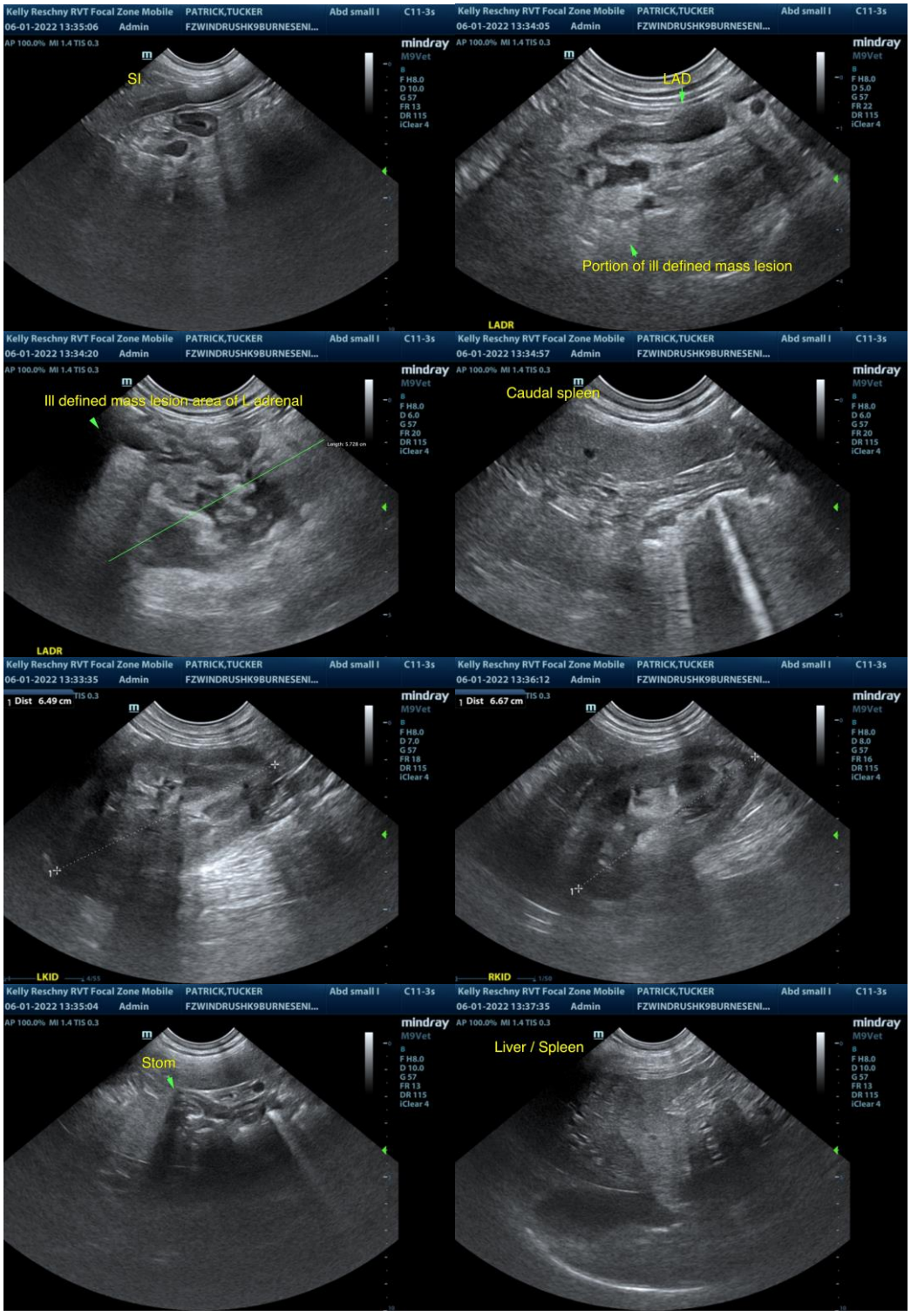

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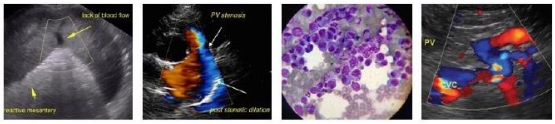

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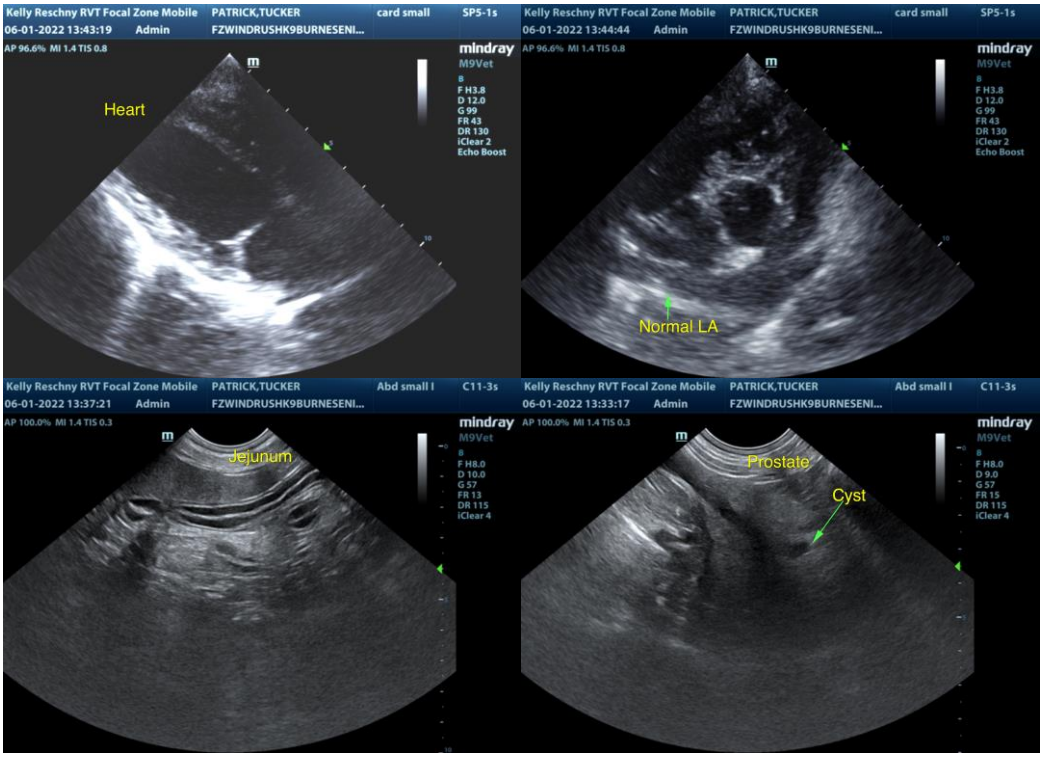

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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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