


PATIENT

Poppy Pallis

PRESENTING CLINICAL SIGNS

Cushings, heart disease; seizure episodes last night. On veteryl and pimobendan

SPECIES

Canine

Abnormal PE/Chem/CBC/UA Results: ALKP 2606, ALT 273, Phos 5.5

BREED

Chihuahua

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN AND HEART
SEX

MN

AGE

12yr

WEIGHT

18.7lb

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	6.5	4.0		2.2	46	78.2	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				
PATIENT	155	1.8	0.8		4.0	3.6	

Cardiac Presentation
INTERPRETED BY

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

The echocardiogram for this patient presented excessive left atrial size expressed both in the LA/AO and LA max measurements. Subtle deviation of the interatrial septum towards the right atrium suggestive of mild increased left atrial pressure was noted. The cranial and caudal mitral valve leaflets presented moderate thickening consistent with endocardiosis. Minor prolapse of the anterior leaflet was present. No chordae tendineae rupture was noted. Doppler indicated measurable moderate to severe eccentric insufficiency. Increased MR velocity was present. The left ventricle presented thicknesses with linear contour and increased LV volume. 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. Normal LVOT velocity with mild aortic insufficiency was present on Doppler. The right atrium and auricle revealed mild increased size with normal structure and content. No evidence of masses was noted or chamber overload. Tricuspid valvular assessment demonstrated mild thickening with mild to moderate 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). No visible pericardial or free pleura fluid was noted. No echographically detectable evidence of infiltrative disease was visible. The cranial mediastinum and pericardial regions were free of masses in the visible window. No overt arrhythmia present.

IMAGING PERFORMED BY

Diane McFadden

HOSPITAL NAME

Newton VH

REFERRING VET

Dr. Barron

INVOICE

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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

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PATIENT	sediment. The ureteral papillae were normal. The ureters were not visible which is normal. No evidence of inflammatory or neoplastic changes were noted.
Poppy Pallis	
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 moderate loss of corticomedullary symmetry and definition expected for the age of the patient. No evidence of pelvic dilation was present. Bilateral pinpoint medullary mineral was present. The left kidney measured 5.1 cm in length. The right kidney measured 5.4 cm in length.
Canine	
BREED	The area of the aortic trifurcation was free of pathology.
Chihuahua	The area of the residual prostate appeared normal and free of pathology.
	Adrenal Glands
SEX	The bilateral adrenal glands were mildly prominent in size. Mild parenchyma heterogeneity and mild capsule asymmetry was present without suspicion for overt neoplasia. The left adrenal gland measured 2.2 cm length and 0.95 cm width in the caudal pole. The right adrenal gland measured 2.2 cm length and 0.66 cm width in the caudal pole.
MN	
AGE	Spleen
12yr	The spleen exhibited normal size with minor capsule asymmetry and subtle parenchyma heterogeneity. A solitary non-disruptive hypoechoic nodule was present in the mid to cranial spleen measuring 1.0 cm in diameter.
WEIGHT	Liver/Gallbladder
18.7lb	The liver presented mild to moderately enlarged in size. The parenchyma of the liver was subjectively normal in echogenicity compared to the spleen and renal cortices. The liver parenchyma was uniform with a mildly coarse echotexture. The capsule of the liver was symmetrically rounded to mildly swollen in margination. Prominent hepatic veins, most notable at the level of the hepatic vein/ caudal vena cava junction were present with concurrent mildly prominent to dilated cranial abdominal caudal vena cava. A solitary well demarcated mildly expansive ventrocaudal nodule was present measuring 1.0 cm in diameter.
INTERPRETED BY	The gallbladder was non-distended in size with minor wall edema and mild non-organized echogenic debris. The gallbladder wall measured 0.16 cm in width. The cystic and common bile ducts were normal.
R. McKenzie Daniel, DVM, DABVP (Canine and Feline)	
IMAGING PERFORMED BY	Gastrointestinal
Diane McFadden	The stomach presented intact wall layering with a normal wall layer ratio. The lumen of the stomach contained mild variably echogenic ingesta consistent with food with no signs of ileus, obstruction or foreign material.
HOSPITAL NAME	Small Intestine
Newton VH	The small intestine presented intact wall layering with 1:3 muscularis/mucosa ratio. The lumen of the small intestine contained concurrent segmental ingesta/chyme with no signs of ileus, obstruction or foreign material.
REFERRING VET	Colon
Dr. Barron	Normal visible colon wall layers were present with apparent formed feces in lumen.
INVOICE	Pancreas
13287ag	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.
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PATIENT

Free Abdomen

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No omental masses or overt lymphadenopathy was present.

SPECIES

Canine

A very scant pocket of focal peritoneal free fluid was present adjacent to the spleen.

BREED

Chihuahua

ULTRASONOGRAPHIC FINDINGS

- Chronic mitral valve disease (ACVIM B2-C)
- Mild anterior valve leaflet prolapse.
- Moderate pulmonary hypertension-estimated pulmonary pressure gradient ~ 64 mmHg.
- Increased measured MR velocity.
- Mild aortic valve insufficiency.
- Chronic hepatopathy exhibiting hepatic vein congestion, non-specific intraparenchymal nodule.
- Non-distended gallbladder with mild wall edema and luminal debris (non-mucocele).
- Concurrent non-specific splenic nodule.
- Focal scant peritoneal free fluid.
- Chronic renal changes with pinpoint medullary mineral.
- Bilateral prominent to mild irregular adrenal glands-consistent with pituitary dependent hyperadrenocorticism.

SEX

MN

AGE

12yr

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

WEIGHT

18.7lb

Although the RA and RV did not exhibit significant enlargement, moderate pulmonary hypertension based on estimated pulmonary pressure gradient as well as evidence of emerging hepatic congestive criteria and scant peritoneal free fluid is consistent with increased pulmonary pressure.

INTERPRETED BY

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(Canine and Feline)

Continued Pimobendan 0.3 mg/kg PO BID, diuretic therapy at lowest effective dose to control clinical signs, monitoring of renal parameters as well as sildenafil 0.5-1.0 mg/kg PO BID with sonographic reassessment and monitoring of clinical response is recommended.

IMAGING PERFORMED BY

Diane McFadden

Recheck echocardiogram is recommended in 4-6 weeks, sooner if clinically indicated. A screening BP is advised to assess for evidence of hypertension is suggested. ECG may be indicated to rule out paroxysmal arrhythmia if continued seizure like or syncopal episodes. Exercise restriction is advised.

HOSPITAL NAME

Newton VH

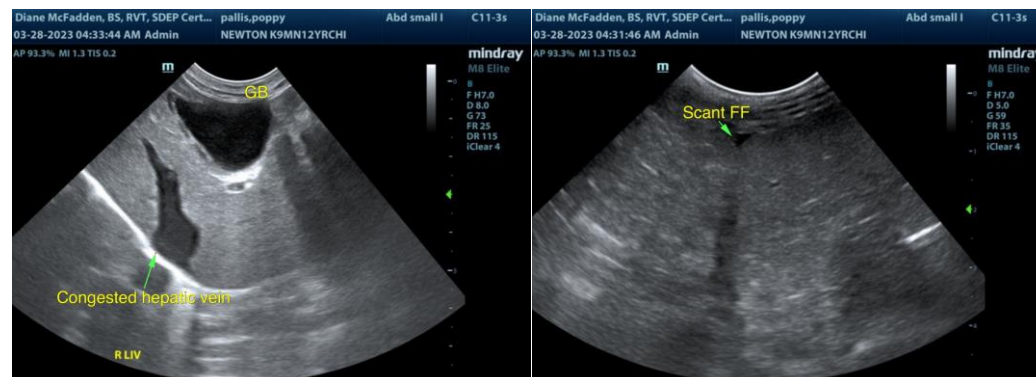
Sonographic monitoring of the hepatosplenic nodules for evidence of progression +/- screening FNA cytology would be ideal.

REFERRING VET

Dr. Barron

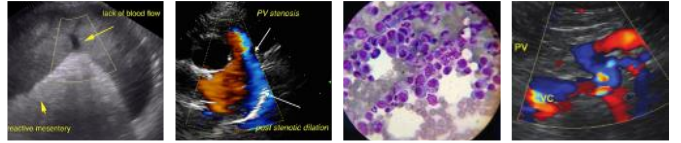
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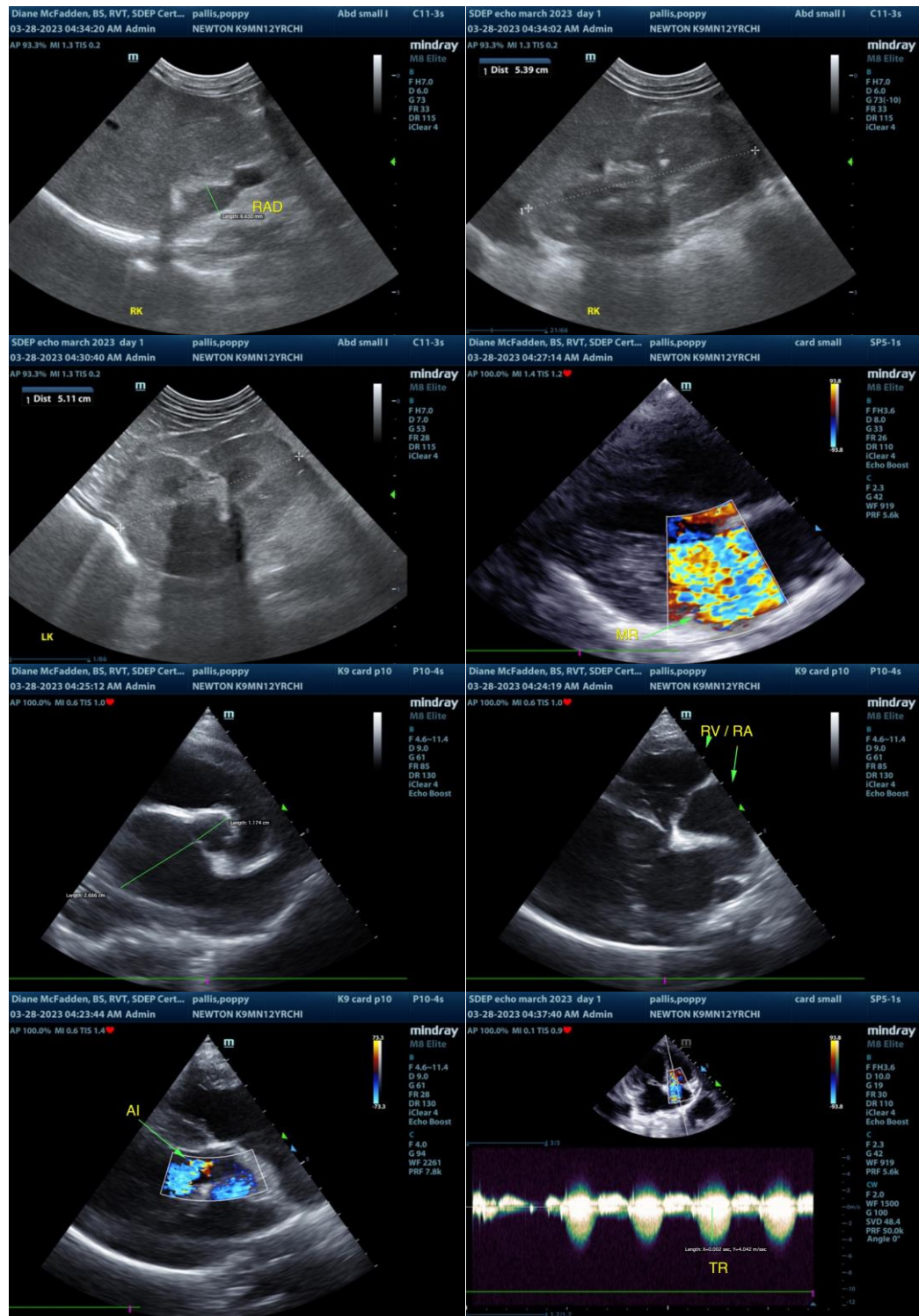
Dr. Barron

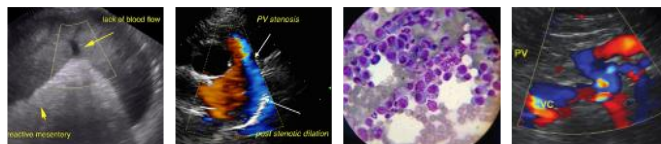
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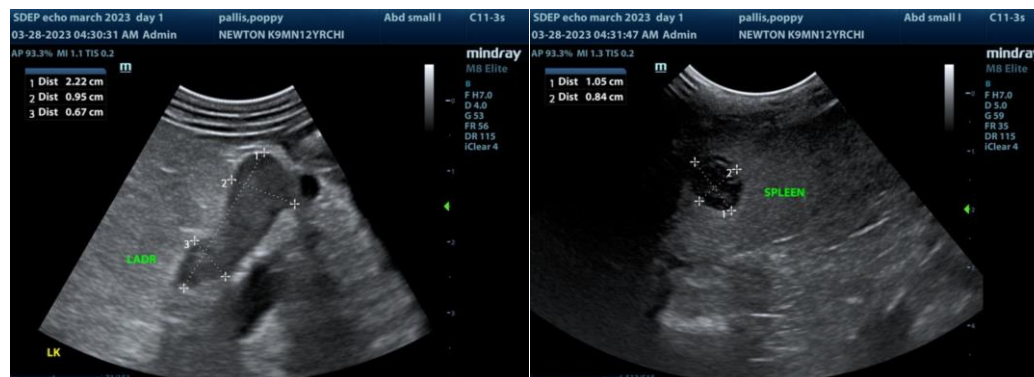
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

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