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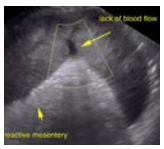
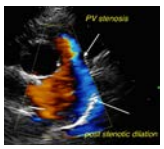
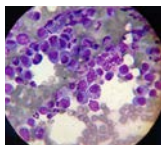
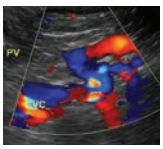

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1-800-838-4268 info@sonopath.com

PATIENT
Max Maldonado

SPECIES
Canine

BREED
Mixed

SEX
Intact Male

AGE
12 Years

WEIGHT
18.2 Pounds

INTERPRETED BY
Eric Lindquist, DMV DABVP, Cert. IVUSS

IMAGING PERFORMED BY
Kelly Vazquez

HOSPITAL NAME
North Jersey AH

REFERRING VET
Dr. Mark Reidel

INVOICE
26714

DATE
10/28/21

PRESENTING CLINICAL SIGNS

Grade 3/6 murmur - recent seizure on 10/19, severe dental issues. Mild liver enzyme elevation, pre-screening double cavity ultrasound for dental procedure. No current meds.
Abnormal PE/Chem/CBC/UA Results: ALT 398, AP 747, glob 5.1, albumin (normal). U/A: 3+ protein, USG 1.040.

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	<1.6	28-40	40-100	<0.6
PATIENT	6.0		1.3	1.8			NM
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		1.32	0.89		3.25		

Cardiac Presentation

The **left atrium** was at the upper limits of normal. Chamber volumes and echogenicity were normal. The cranial and caudal **mitral** valve leaflets presented vegetative thickening consistent with endocardiosis. Doppler indicated measurable insufficiency. Slight prolapse of the anterior mitral valve leaflet noted. 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 adequate linear morphology. 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.

Urinary System

The **urinary bladder**, trigone, and pelvic urethra presented normal thicknesses and normal tone. The ureters were not visible which is normal. No uroliths or sediment were visualized and anechoic urine was present. No evidence of inflammatory or neoplastic changes were noted. Ureteral papillae were normal.

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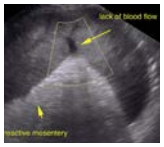
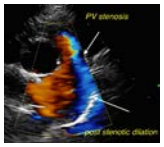
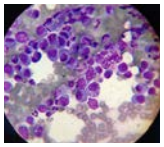
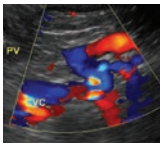

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The **prostate** was uniformly enlarged with lobar swelling appeared to impinge upon the urethra and mildly deviate the descending colon. The prostatic tissue was hyperechoic containing focal areas of decreased echogenicity. These changes are suggestive of either chronic inflammatory episodes, benign cystic pathology or both. Underlying neoplasia cannot be completely ruled-out but is lower on the differential list. This presentation is most consistent with benign prostatic hyperplasia with possible active prostatitis. Neutering or off-label Finasteride (Propecia) (0.1-0.5 mg/kg Sid) treatment is indicated +/- FNA or prostatic wash cytology and culture. The prostate measured 2.4 cm.

The **kidneys** revealed largely normal size and structure, corticomedullary definition and ratio (cortex 1/3 of medulla) were essentially maintained with some age-related loss of curvilinear patterns regarding the capsule and C/M junction. The cortices presented largely uniform texture with some increased echogenicity expected for his age patient. Medullary structure differed distinctly from that of the cortex and no evidence of pelvic dilation was present. The right kidney measured 5.44 cm. The left kidney measured 4.72 cm.

Adrenal Glands

The **right adrenal gland** was visualized and recognized as having largely normal shape, size, position and acceptable echogenicity for this age group and breed. Some heterogeneity was noted within the adrenal parenchyma without concerning capsular distortion. These changes are likely age related but should be monitored by sonogram should the patient be suspected of having adrenal disease. The right adrenal gland measured 1.88 cm x 0.88 cm at the caudal pole and 0.6 cm at the cranial pole.

The **left adrenal gland** presented an irregular, enlarged cranial pole, measuring 1.72 cm in length x 0.89 cm at the cranial pole and 0.54 cm at the caudal pole.

Spleen

The **spleen** was largely normal with a 0.8 cm hypoechoic non-disruptive nodule.

Liver

The **liver** presented heterogeneous parenchymal changes throughout with increased portal markings. A 2.35 cm x 215 cm nodular lesion was noted. The mass noted on the caudal aspect of the left liver was pedunculated. Mild disruption of architecture. Most consistent with hepatoma or pronounced nodular hyperplasia. Macronodular changes were noted throughout the liver. Vascular and biliary tracts were of normal volume and no evidence of congestion was noted. The gallbladder presented some dependent debris with essentially normal contour.

Gastrointestinal

Examination of the **gastrointestinal tract** revealed a stomach and intestine free of stasis, of normal wall thickness, acceptable curvilinear mural detail, and peristaltic activity. Small and large intestine demonstrated normal luminal chyme and stool consistency respectively. No obstructive or overt infiltrative disease was noted. No associated abnormal lymphatic activity was noted.

Pancreas

The base and limbs of the **pancreas** were observed to be largely isoechoic to surrounding omental fat. Pancreatic duct and capsular contour were acceptably normal and parenchyma respected normal curvilinear patterns. No overt evidence of active inflammatory or neoplastic disease was noted.

Other

The testicles were imaged and found to be uniform, no evident pathology.

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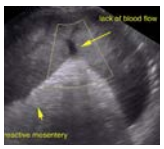
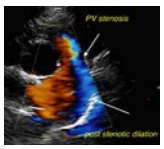
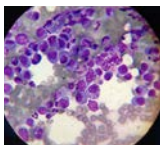
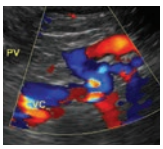

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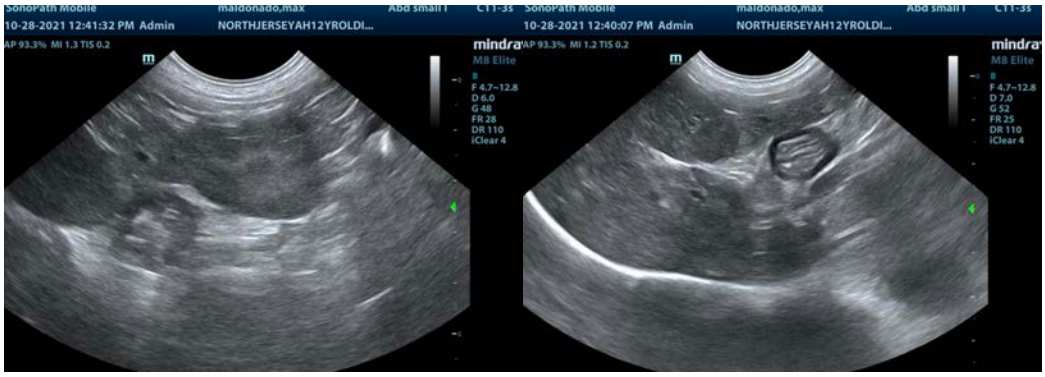
ULTRASONOGRAPHIC FINDINGS

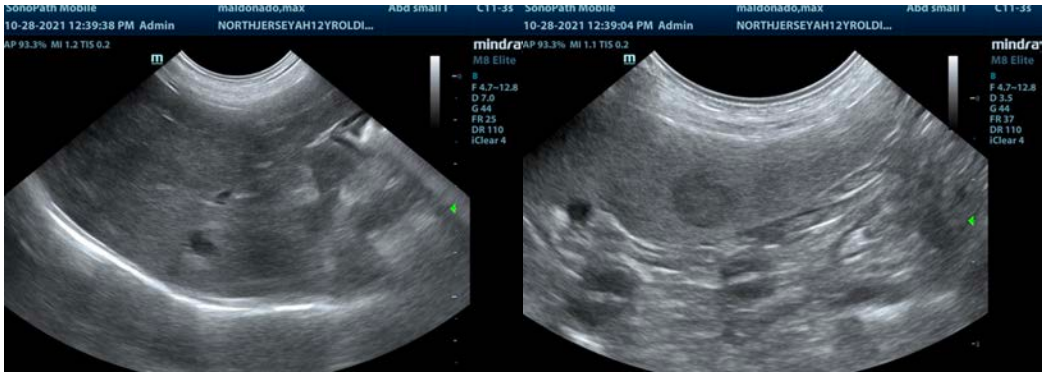
- Stage B1 valvular disease
- Upper limits of normal on left atrial size
- BPH prostate
- Heterogeneous, irregular adrenal glands – hyperplasia versus emerging PDH, minor potential for carcinoma on either adrenal
- Nodular hepatic changes

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

No specific therapy recommended at this time. Assessment of BUN, creatinine, USG, chest radiographs and blood pressure as well as clinical exam ideal in 7-10 days. Basal respiratory rate should be <20/min.

Bile acid profile warranted with ultrasound guided FNA or core biopsy for further definition of the liver. FNA of the left lateral liver lesion as well as right or left-sided parenchymal lesions all indicated. There is no overt evidence of visceral cause of the seizure activity unless bile acids are elevated and may be reducing the threshold for an underlying disease process in the CNS. CT with contrast of the CNS would be ideal. Minor potential for neoplasia regarding the liver. Blood pressure measurements warranted. if the patient appears Cushingoid, seizure activity could be caused by expansive pituitary tumor.





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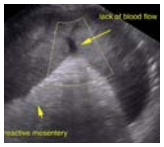
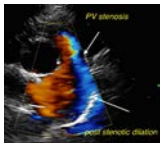
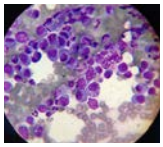
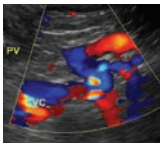

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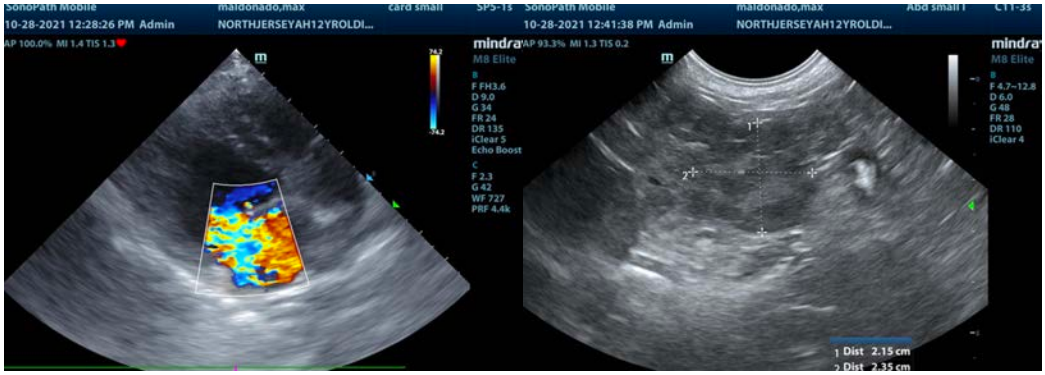

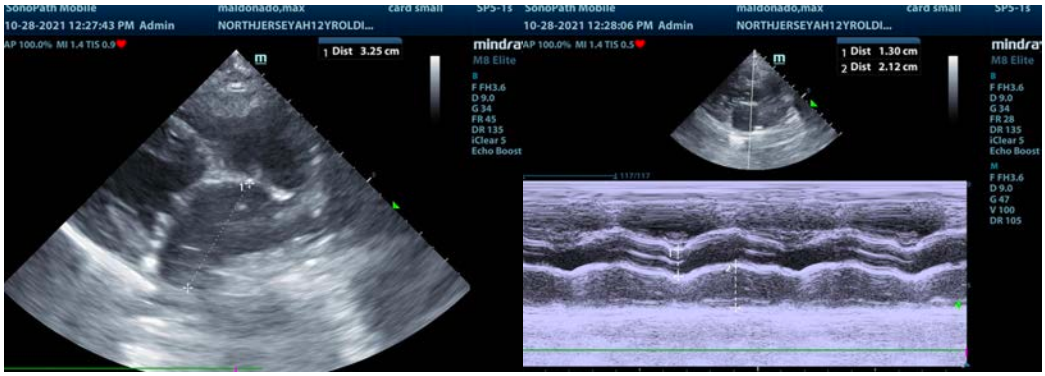

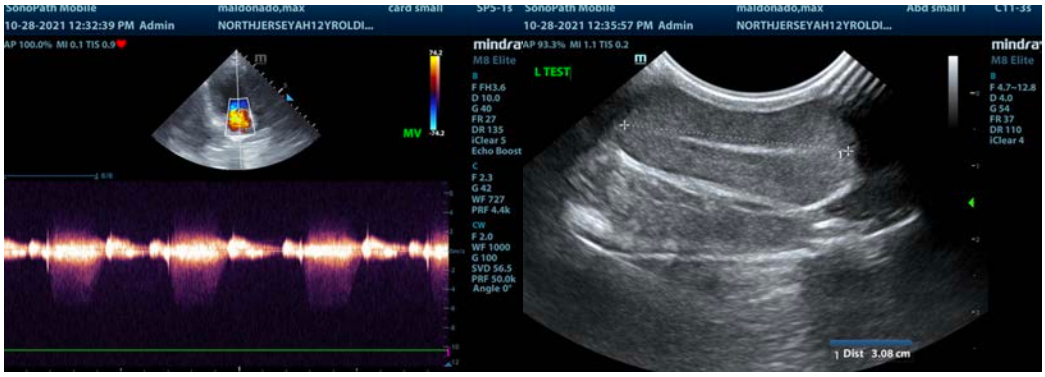

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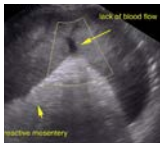
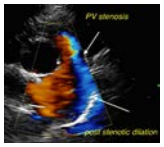
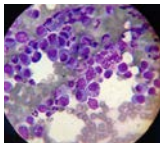
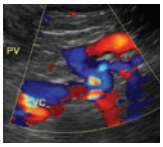

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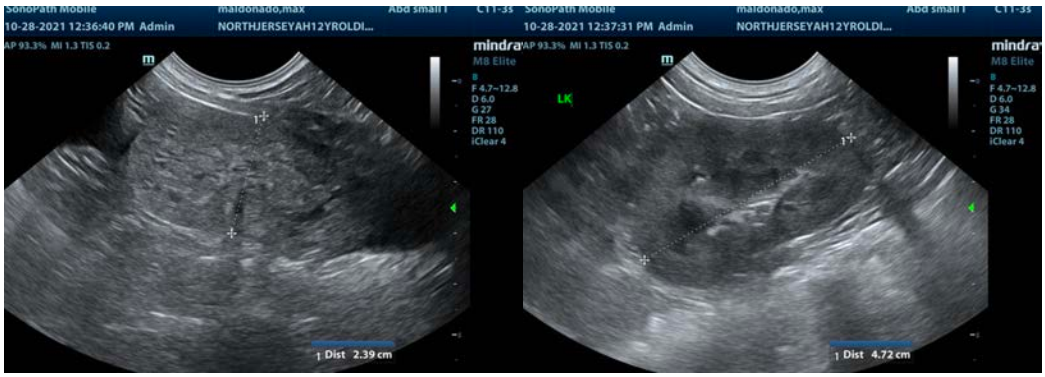

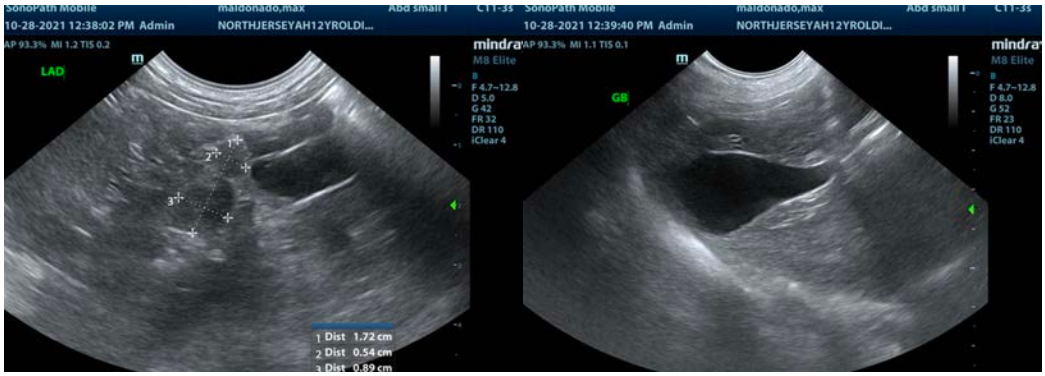

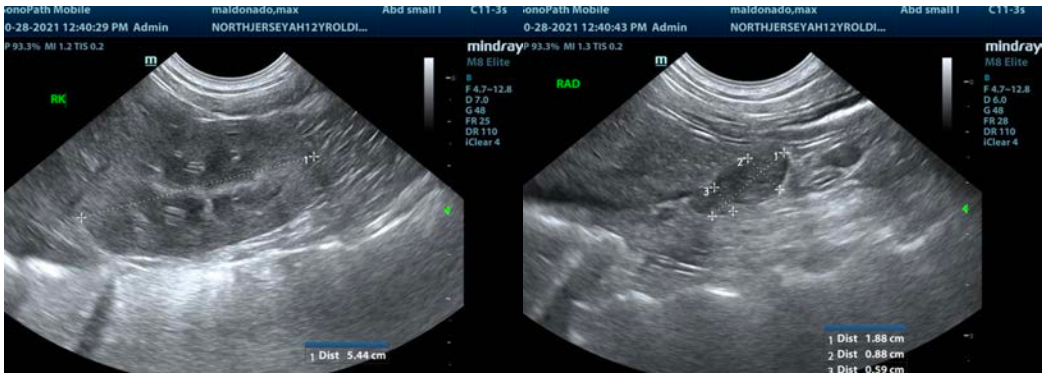

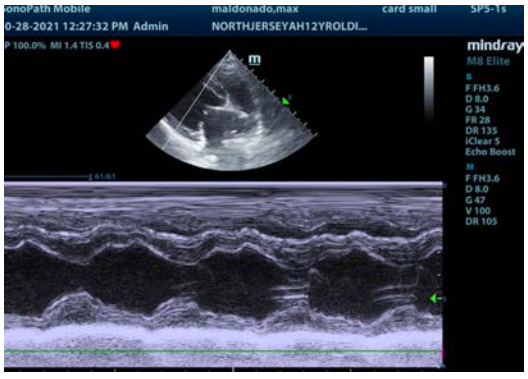

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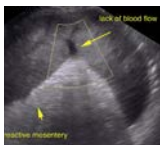
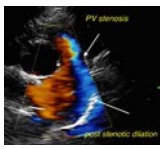
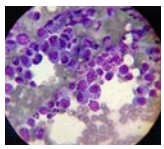
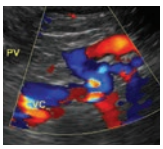

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visible in the image/video clips provided.

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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info@SonoPath.com