

PATIENT

Sawyer Smith

SPECIES

Feline

BREED

DSH

SEX

MN

AGE

10 Years

WEIGHT

13 lbs

PRESENTING CLINICAL SIGNS

Acute onset vomiting/drooling, seizures, treatment for tomato plant toxicity but lateral rad- loss of detail/ mass??? cranioventral abdomen. Current meds: cerenia, famotidine, baytril, midazolam
Abnormal PE/Chem/CBC/UA Results: ALT 146, fPL normal UA: glucosuria - fructosamine low SG: 1.051

ULTRASONOGRAPHIC EXAMINATION OF THE HEART & ABDOMEN

FELINE CARDIAC PARAMETERS	BODY WEIGHT (kg)	HR (BPM)	IVSd (cm)	LVIDd (cm)	LVWd (cm)	FS (%)	EF (%)
NORMAL PARAMETER	-----	150-240	0.3-0.6	1.0-2.1	0.25-0.6	35-67	80-100
PATIENT		190	0.55	1.57	0.48	49.7	84.7
FELINE CARDIAC PARAMETERS	LA/AO (Boon)	LA/AO HEART BASE (Sisson)	LA 2D 4-chamber long axis AS to FW (Sisson) (cm)	LVOT VEL (m/s)	RVOT VEL (m/s)	IVRT (m/)	
NORMAL PARAMETER	<1.5	0.88-1.79	0.7-1.7	<1.6	<1.3	40-60	
PATIENT	1.2	1.0	1.4		0.84	NM	
Adapted from June Boon, Veterinary Echocardiography, 1998 Sisson D et al. JVIM 1991; 5: 232, Jacobs et al. Am J Vet Res 1985; 46:1705							

INTERPRETED BY

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

IMAGING PERFORMED BY

Jessica Miller

HOSPITAL NAME

All Creatures Great
and Small

REFERRING VET

Dr. Ashmore

INVOICE

50756

DATE

3-7-22

Cardiac Presentation

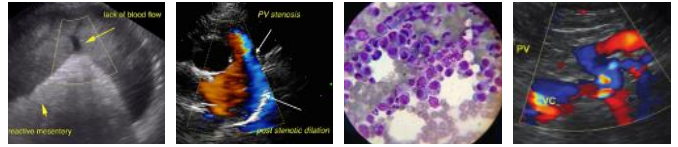
Normal left atrium dimension and size without evidence of spontaneous contrast. Mild hypertrophy of the basilar IVS. The remainder of the IVS and LV free wall exhibited overtly normal thickness with mild evidence of myocardial remodeling. LV internal dimension was normal. LV systolic function was adequate as evidenced by the fractional shortening measurement above. Subjective minor MV thickening without overt MR or systolic anterior motion (SAM) of the mitral valve. The aorta was of normal size. Subjective yet nonspecific mild thickening of the aortic valve was potentially present. Turbulent to dynamic LVOT outflow. Right atrial and right ventricular dimensions were normal. The tricuspid valve was overtly normal though minor TR was present. The pulmonary artery and pulmonic valve were overtly normal. Laminar RVOT outflow and normal RVOT velocity. Mild volume pericardial with mild to moderate volume pleural effusion was present. No overt cardiac masses or arrhythmia.

Urinary System

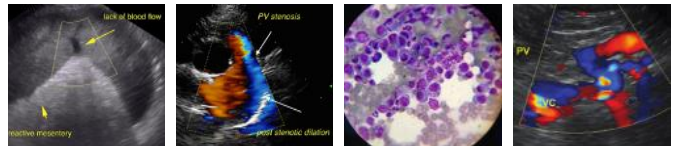
The urinary bladder, trigone, cystourethral junction, and visible pelvic urethra to a depth of 2.0 cm exhibited normal thickness and tone. Primarily anechoic urine was present in the lumen. Echogenic to particulate sediment was present without evidence of calculus formation. The ureteral papillae were normal. The ureters were not visible which is normal. No evidence of inflammatory or neoplastic mural changes were noted.

No evidence of pathology in the area of the aortic trifurcation.

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



PATIENT	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 4.7 cm in length. The right kidney measured 4.7 cm in length.
Sawyer Smith	
SPECIES	<i>Adrenal Glands</i>
Feline	The left adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The left adrenal gland measured 0.32 cm. The right adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The right adrenal gland measured 0.43 cm.
BREED	<i>Spleen</i>
DSH	The spleen exhibited normal overall size and contour with a finely textured and homogenous parenchyma. Indistinct subtly expansive isoechoic nodule possible in the mid spleen measuring 1.0 cm in diameter. The splenic vasculature at the hilus was normal in volume with no evidence of congestion or thrombosis.
SEX	<i>Liver / Gallbladder</i>
MN	The liver was normal in size and contour with normal hepatic parenchyma echogenicity exhibiting mild coarse echotexture. Evidence of minor hepatic vasculature congestion was present along with concurrent mildly prominent to dilated cranial abdominal caudal vena cava measuring 0.87 cm in diameter. No overt evidence of thrombosis.
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WEIGHT	The gallbladder was non-distended in size with thin walls and primarily anechoic luminal content. The cystic and common bile ducts were normal.
13 lbs	<i>Gastrointestinal</i>
INTERPRETED BY	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.
R. McKenzie Daniel, DVM, DABVP (Canine and Feline)	The intestinal walls demonstrated intact wall layering and maintained 1:3 muscularis / mucosa ratio. The mucosa exhibited mild decreased echogenicity with occasional mucosal speckling. A mild segmental nonobstructive small intestinal ileus pattern was present.
IMAGING PERFORMED BY	Normal visible colon wall layers were present with apparent formed feces in lumen.
Jessica Miller	<i>Pancreas</i>
HOSPITAL NAME	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.
All Creatures Great and Small	<i>Free Abdomen</i>
REFERRING VET	Mild volume peritoneal free fluid was noted.
Dr. Ashmore	The omentum was of uniform echogenicity.
INVOICE	No overt lymphadenopathy was present.
50756	
DATE	ULTRASONOGRAPHIC FINDINGS
3-7-22	<ul style="list-style-type: none"> LV myocardial remodeling with mild basilar IVS hypertrophy.



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- Minor MR/TR - no overt clinical pulmonary hypertension.
- Normal left atrium.
- Subjective mildly thickened aortic valve - nonspecific.
- Mild urinary bladder sediment - likely mild cellular or crystalline debris with potential for mild mucus.
- Low grade hepatopathy exhibiting evidence of mild vasculature congestion - low grade congestive, reactive, or inflammatory hepatopathy possible. No overt neoplastic criteria.
- Subtle indistinct isoechoic splenic nodule - potential focal to mild hyperplasia, hematopoiesis, splenitis with neoplasia considered a less likely differential diagnosis.
- Mild gastroenterocolitis pattern.
- Mild volume pericardial, pleural, and peritoneal free fluid.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The cardiac presentation may suggest a form of HCM which would be considered a rule out diagnosis if the patient is deemed normotensive euthyroid and of normal hydration status. No other clinical issues such as LV systolic function or left or right heart chamber enlargement were noted. Given the lack of left or right heart chamber enlargement or evidence of clinical pulmonary hypertension, the heart appears to be compensated and not overtly consistent with cardiogenic cause of third spacing of fluid. An exception to this rule may potentially include iatrogenic or stress induced event i.e., seizure, which may result in third spacing of fluid even with normal cardiac chamber size.

Assuming normal renal parameters, Lasix trial at lowest effective dose with monitoring of pleural, pericardial, and peritoneal effusion would be reasonable. Correlation with effusion analysis, cytology, +/- culture and sensitivity would be ideal if possible.

Assessment of t4 levels and blood pressure recommended to rule out contributing factors.

Recheck echocardiogram could be considered in 10-14 days to assess for further prognosis.

Empirically, supportive care for seizures and gastrointestinal support recommended.

The urinary bladder sediment may suggest cellular / crystalline debris or mucus. Cystocentesis for UA +/- C/S if evidence of inflammatory cells is recommended.

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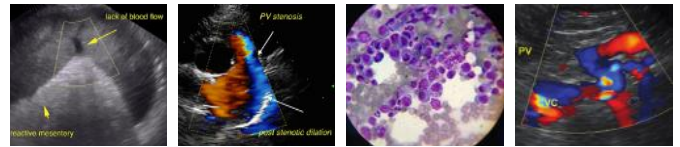
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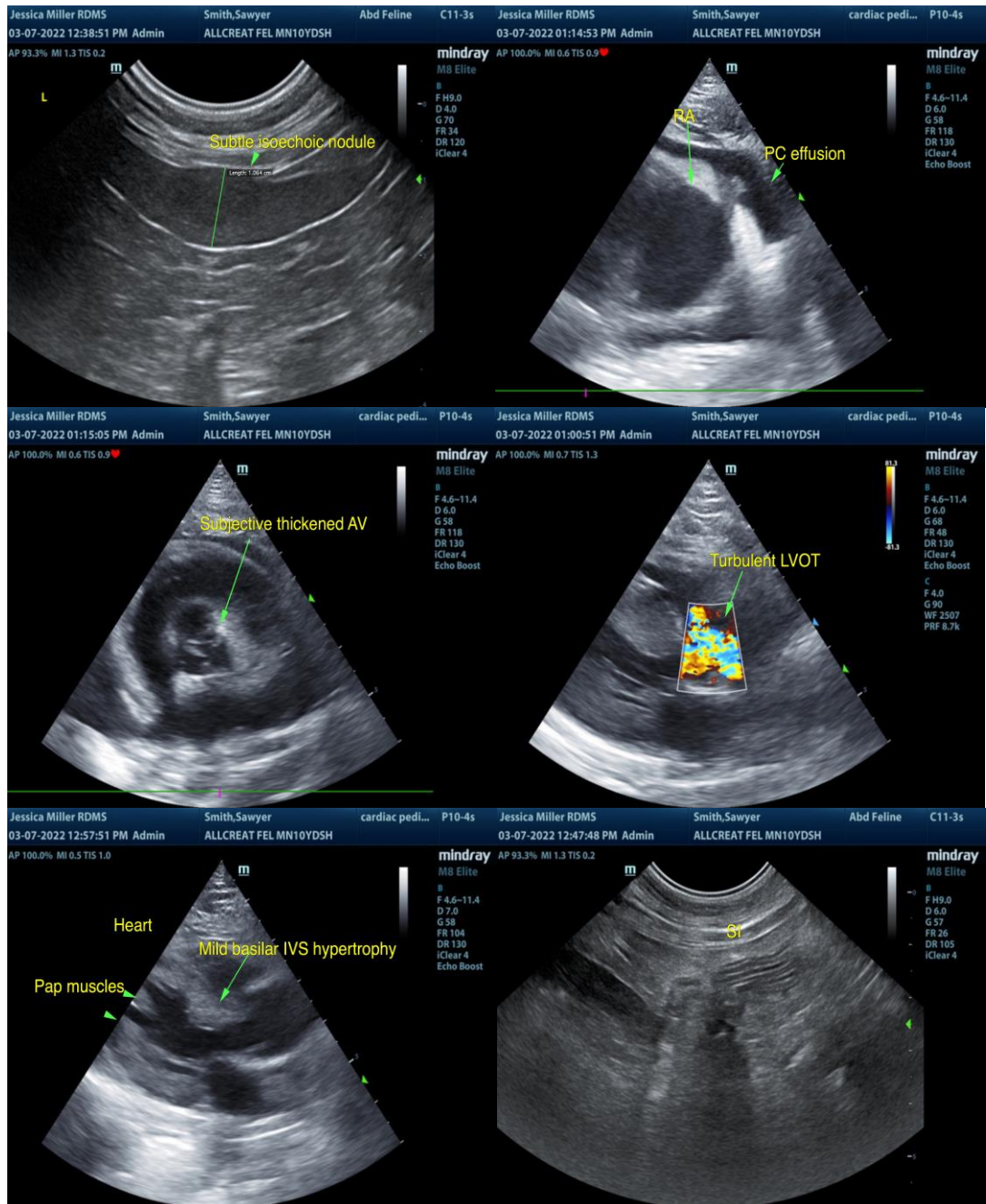
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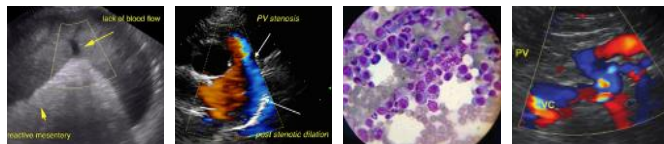
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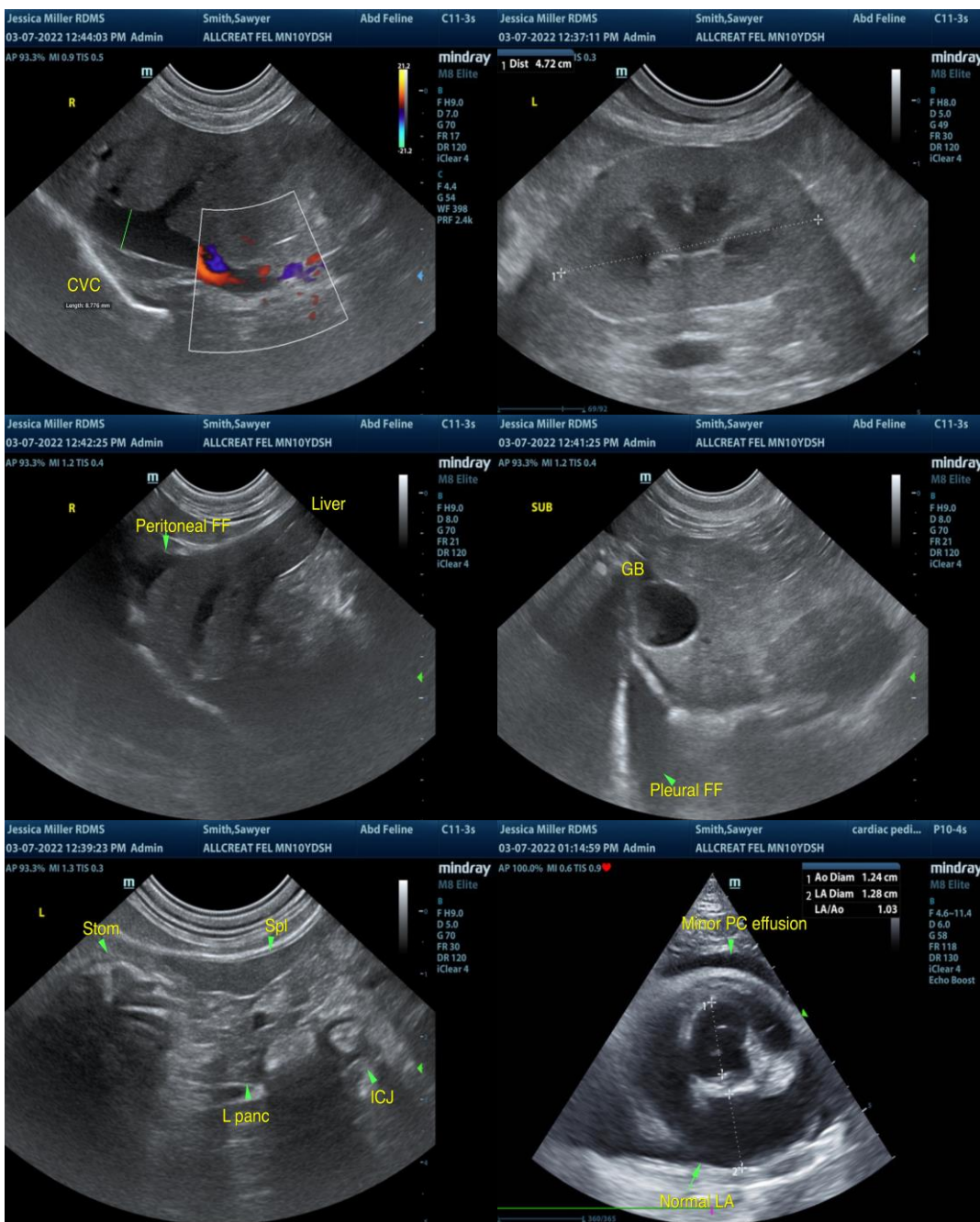
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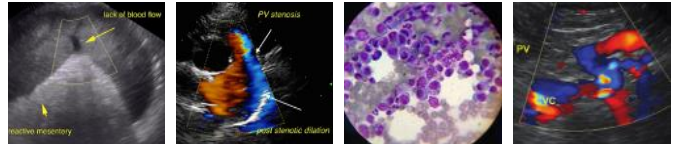
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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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

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