



PATIENT

Bonz Corbin

SPECIES

Canine

BREED

Mastiff

SEX

Neutered Male

AGE

6

WEIGHT

191

PRESENTING CLINICAL SIGNS

History of lethargy. Seen at primary DVM where a fib diagnosed. Also having intermittent PVCs. Abnormal PE/Chem/CBC/UA Results: Chemistry - ALT - 822; A:P - 1230; T.bili 1.8 (serum icteric)

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	--	--	NM	--	20	--	1.3
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	--	--	--	--	--	7.8	--

INTERPRETED BY

Eric Lindquist, DMV
DABVP, Cert. IVUSS

IMAGING PERFORMED BY

Adrienne Waffle

HOSPITAL NAME

Torch Lake VC

REFERRING VET

Dale Ackler

INVOICE

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4/6/23

Cardiac Presentation

The cardiac presentation in this patient presented severe arrhythmia. Volume overload of the left atrium and left ventricle was noted. The left atrium measured 7.3 cm. Pleural effusion was noted. Mitral and tricuspid insufficiency were present.

Urinary System

The **urinary bladder** and visible pelvic urethra were unremarkable for the level of repletion presented. The urine, however, did present some mildly echogenic debris consistent with mucous, exfoliated cells from renal or bladder origin, and/or blood clots as these echogenic changes can all present similarly. This is often related to urinary tract infection but may represent simple evidence of exfoliated debris or sterile inflammation. Cystocentesis, urinalysis, +/- culture would be recommended to rule out and define any UTI. This is a moderate change.

The **kidneys** revealed normal size and structure, corticomedullary definition and ratio for this age. The cortices presented largely uniform texture with normal echogenic relationship to liver and spleen. Medullary structure differed distinctly from the cortex and no evidence of pelvic dilation was present. The capsules were acceptably uniform without significant irregularities. The left kidney measured 5.56 cm. The right kidney measured 5.0 cm.

Adrenal Glands



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Both **adrenal glands** were visualized and recognized as having normal shape, size, position and echogenicity for this breed. The phrenic vasculature, glandular echogenicity and detail were unremarkable. Capsule, cortex, and medullary definition were normal for this age patient.

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Spleen

The **spleen** presented a smooth homogeneous parenchyma hyperechoic to liver and renal cortical parenchyma. The capsule was smooth without noticeable expansion or deviation from within the spleen or adjacent pathology. The splenic vasculature demonstrated normal volume without signs of congestion or thrombosis. No sonographic evidence of acute or chronic inflammatory, neoplastic, or infarctual changes were noted.

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The cranial abdomen revealed heterogenous **hepatic** changes, however, visibility was poor. Further imaging of the liver is indicated, possibly under sedation.

Gastrointestinal

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There was some residual chyme and gas was noted in the **stomach**, yet not pathological. This is consistent with end post prandial presentation. Transit of chyme into the small intestine was normal. Curvilinear patterns were maintained throughout the GI tract. No evidence of pathology. 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.

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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.

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ULTRASONOGRAPHIC FINDINGS

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Adrienne Waffle

- Pleural effusion
- Tachyarrhythmia
- DCM-type presentation
- Moderate urinary bladder debris
- Partially full stomach
- Heterogenous hepatic changes *See recommendations.

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INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

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The echocardiogram parameters are likely complicated by the tachyarrhythmia. I recommend quadratherapy in this patient with Lasix 2-4 mg/kg BID, Pimobendan 0.3 mg/kg BID, Ace-inhibitor 0.5 mg/kg SID, progressing to BID, and Spironolactone 1-2 mg/kg BID. The cranial abdomen revealed heterogenous hepatic changes, however, visibility was poor. Further imaging of the liver is indicated, possibly under sedation. Pleurocentesis is warranted with cytopspin to assess for concurrent neoplastic event. Prognosis is guarded.

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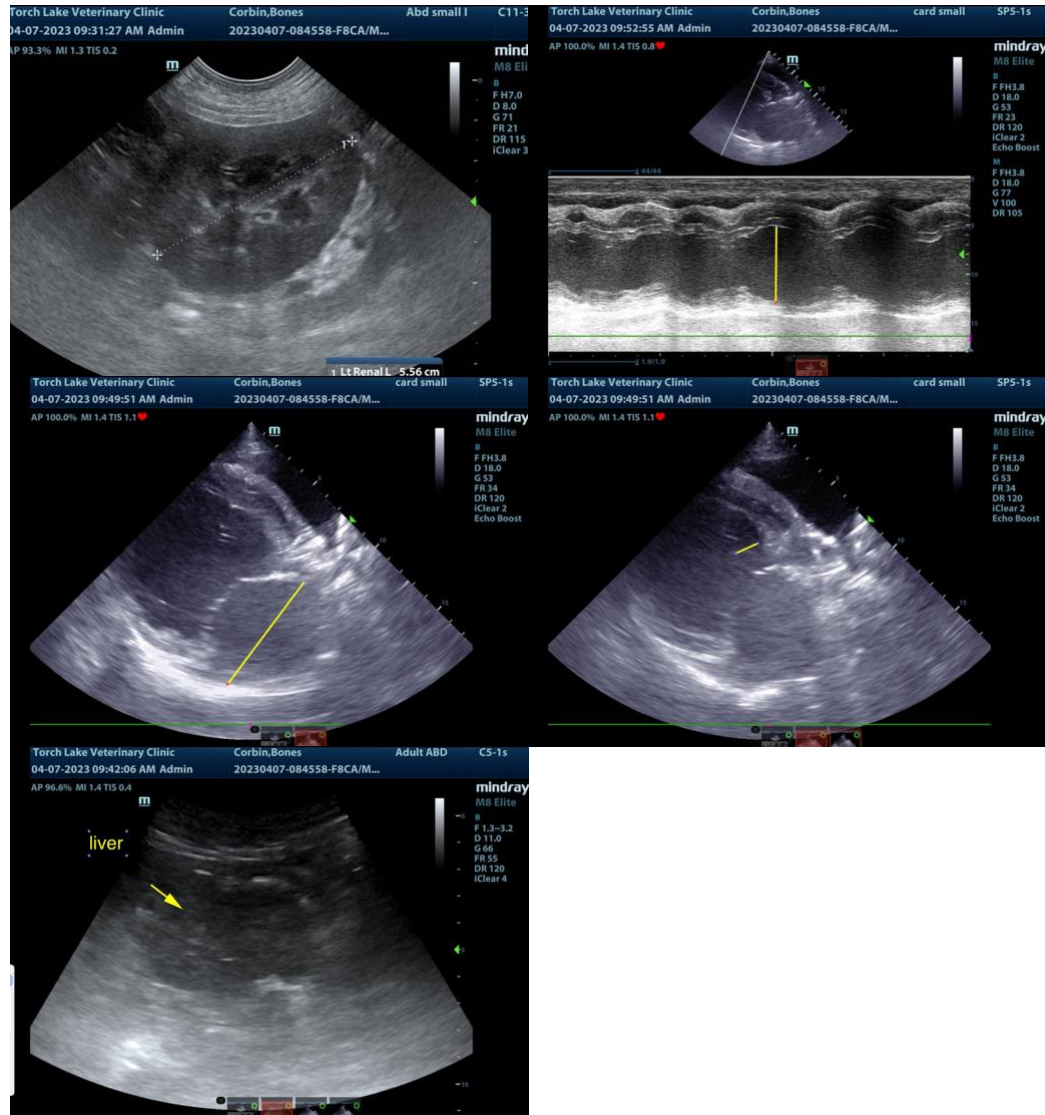
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The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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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