



PATIENT	PRESENTING CLINICAL SIGNS
Buddy Lynch	History of DCM and on Med for last 4 years. Presented for vomiting tentative diag obstructive biliary disease after POCUS exam
SPECIES	Abnormal PE/Chem/CBC/UA Results: Severe elevation of liver enzymes
Canine	ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN AND LIMITED CARDIAC
BREED	Urinary System
Labrador Retriever	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 sediment. The ureteral papillae were normal. The ureters were not visible which is normal. No evidence of inflammatory or neoplastic changes were noted.
SEX	
MN	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 mild loss of corticomedullary symmetry and definition expected for the age of the patient. No evidence of pelvic dilation was present. A solitary cortical cyst was present in the left kidney. The left kidney measured 7.5 cm in length. The right kidney measured 8.3 cm in length
AGE	
9	The area of the aortic trifurcation was free of pathology.
WEIGHT	The area of the residual prostate appeared normal and free of pathology.
39kg	Adrenal Glands
INTERPRETED BY	The left adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The left adrenal gland measured 0.70 cm width at the caudal pole and 0.71 cm width at the cranial pole. The right adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The right adrenal gland measured 0.71 cm width at the caudal pole and 0.75 cm width at the cranial pole.
R. McKenzie Daniel, DVM, DABVP (Canine and Feline)	Spleen
IMAGING PERFORMED BY	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.
Dr. Belan	Liver
HOSPITAL NAME	The liver exhibited mild generalized enlargement. The hepatic parenchyma revealed diffuse reduced echogenicity compared to the spleen and renal cortical parenchyma with a moderate coarse echotexture. Increased yet indistinct portal vein prominence was evident. The capsule of the liver was normal in margination. Distinct masses or nodules were not evident. The hepatic and portal vasculature were normal in appearance. The gallbladder was distended in size with moderate to marked non-dependent mildly organized variably echogenic luminal debris. Subtle evidence of peri gallbladder wall and peripheral inflammatory criteria was present. The cystic and common bile ducts were normal.
SAVE	Gastrointestinal
REFERRING VET	The stomach presented mild wall thickening secondary to echogenic mucosa hypertrophy. Intact wall layering was maintained and distinct. Mild gastric distension with primarily anechoic fluid was present.
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PATIENT	The intestinal walls demonstrated intact wall layering with prominent ileum walls extending to the level of the ileocolic junction. The mucosa exhibited mild decreased echogenicity with occasional mucosal speckling. A segmental to diffuse ileus pattern consisting of mild fluid accumulation in the intestinal lumen was present without obstruction or foreign material.
Buddy Lynch	
SPECIES	The colon exhibited subjective intact wall layering the proximal to transverse colon was mildly distended with non-formed fecal matter.
Canine	
BREED	Pancreas
Labrador Retriever	The pancreas was prominent in size with mixed echogenic to heterogeneous parenchyma compared to adjacent omentum.
	Free Abdomen
SEX	No omental masses or peritoneal effusion was present.
MN	Focal, mildly prominent to enlarged colic lymph nodes were present. The lymph nodes were essentially isoechoic to adjacent omentum without evidence of peripheral inflammation and maintaining a normal width: length ratio (<0.5). This finding is considered incidental and is not consistent with inflammatory or neoplastic criteria.
AGE	Brief subjective echocardiogram revealed evidence of excessive left atrial and left ventricle size with decreased LV contractility consistent with the previous diagnosis of DCM criteria. No overt evidence of cardiac or pericardial tumors or evidence of pericardial effusion.
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WEIGHT	ULTRASONOGRAPHIC FINDINGS
39kg	<ul style="list-style-type: none"> • Gallbladder mucocele with evidence of mild peripheral inflammation • Hepatopathy-subjective acute/acute on chronic • Gastroenteritis pattern with subjective mild to moderate ileitis • Concurrent distended proximal to transverse colon contained non formed fecal matter • Possible chronic active pancreatitis • DCM-consistent with previous cardiac diagnosis
INTERPRETED BY	Secondary findings
R. McKenzie Daniel, DVM, DABVP (Canine and Feline)	<ul style="list-style-type: none"> • Left kidney cortical cyst-incidental
IMAGING PERFORMED BY	INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS
Dr. Belan	A GI panel to include PLI/TLI/Cobalamin/Folate may be considered to assess for evidence of pancreatitis as well as occult intestinal disease. Gallbladder mucocele and concurrent hepatopathy is suspected to be the primary clinical player. Assuming normal clotting status, cholecystectomy with hepatic +/- GI biopsies is likely warranted however underlying cardiac disease may preclude surgical options in this case. Consultation with a cardiologist prior to surgical options is recommended. Some or all of the following may be considered. A guarded to potentially unfavorable prognosis is indicated.
HOSPITAL NAME	
SAVE	
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INVOICE	Enrofloxacin 5 mg/kg SID PO & Metronidazole (10-20 mg/kg po bid) over 3 weeks, Ursodiol (10-15 mg/kg p.o. q24h) over 8 weeks and recheck sonogram. Monitor rapid rise in ALT, SAP, Bilirubin, bilirubinuria, leukocytosis, focal cranial abdominal subxyphoid discomfort or progressive anorexia. More information regarding clinical emerging mucocele issues may be found with our article and research at http://sonopath.com/resources/articles, <i>Defining a GB Mucocele</i> and <i>Clinical Parameters in Dogs with Sonographically Diagnosed Surgical Biliary Disease</i> from ECVIM 2009.
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Buddy Lynch

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Canine

BREED

Labrador Retriever

SEX

MN

AGE

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WEIGHT

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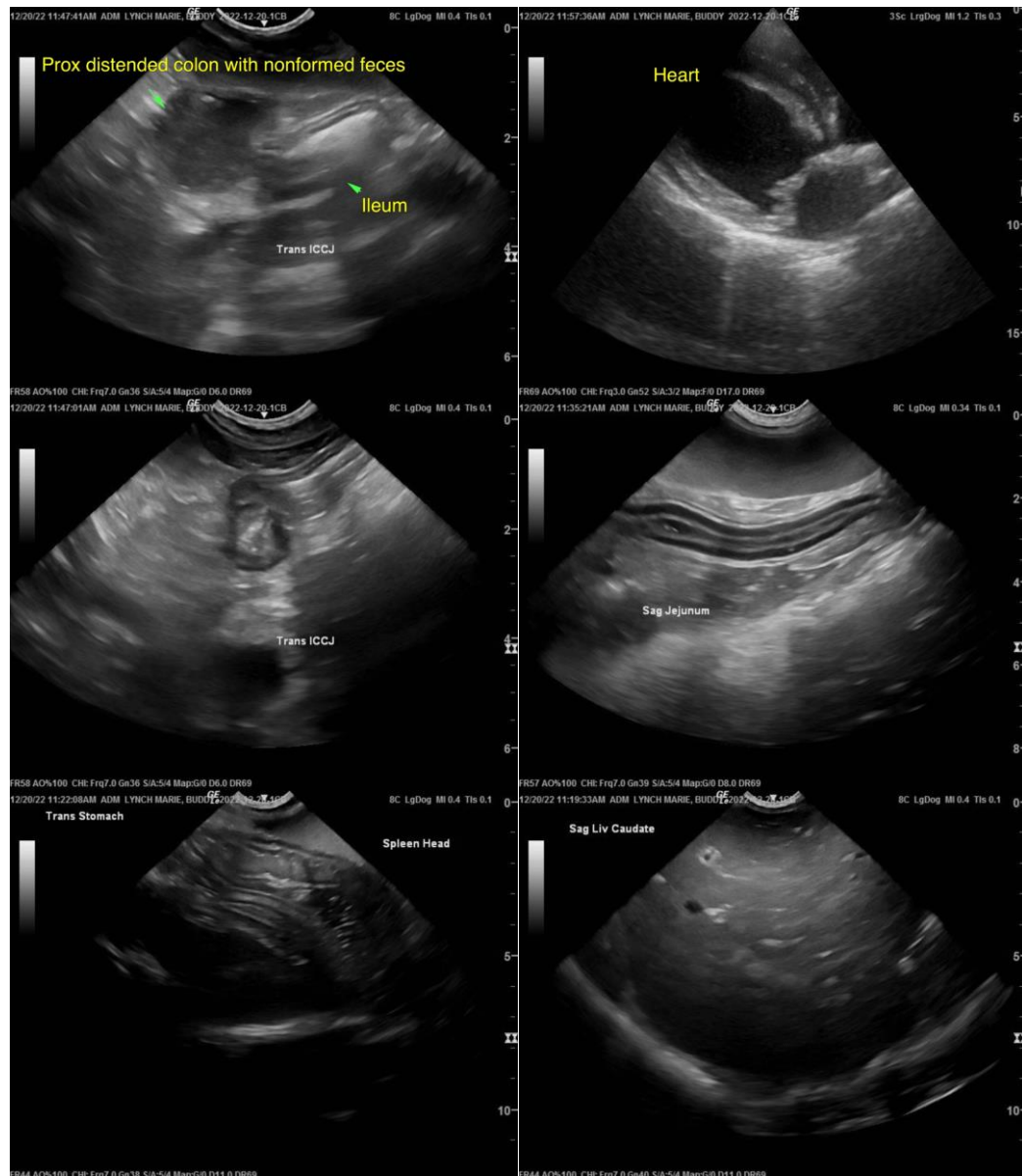
Dr. Pak

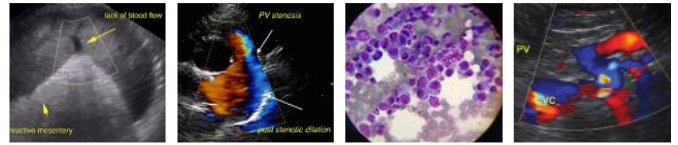
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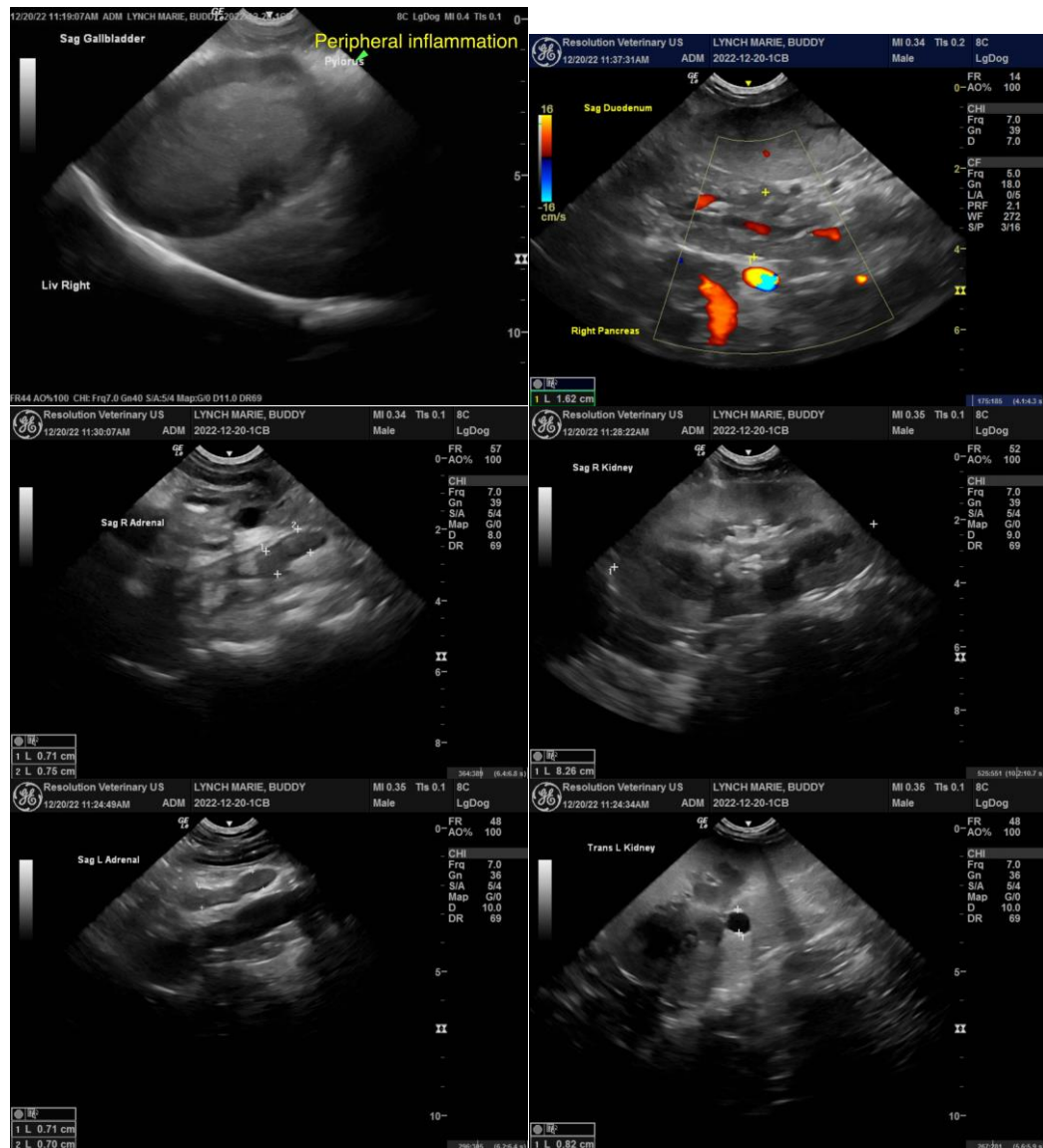
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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)
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