



<b>PATIENT</b>	<b>PRESENTING CLINICAL SIGNS</b>
Chips Lynch	Presented in November of last year for two vomiting episodes. An exploratory gastrotomy revealed a very thickened antral/pyloric mucosa/stomach wall. Subsequent histopathology suggested mild, chronic lymphoplasmacytic gastritis and GALT hyperplasia. Brief, preanesthetic blood work at that time demonstrated a mild elevation in ALT but was otherwise unremarkable. Was discharged with metronidazole, omeprazole, Cerenia, ursodiol and a SAME antioxidant.
<b>SPECIES</b>	
Canine	Abnormal PE/Chem/CBC/UA Results: Repeat blood work taken earlier this month demonstrated a significantly higher ALT level with elevated GGT and bilirubinemia. Radiographs demonstrated some mild to moderate gastric dilation and some radiopacities which may be associated with the gallbladder. Concern is for post hepatic biliary stasis.
<b>BREED</b>	
Cavalier King Charles	
<b>SEX</b>	<b>ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN</b>
MN	<b>Urinary System</b>
<b>AGE</b>	The urinary bladder, trigone, cystourethral junction, and visible pelvic urethra 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.
7yr	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. Cortical microinfarctions noted in the left kidney and possibly in the right kidney. The left kidney measured 5.2 cm in length. The right kidney measured 5.2 cm in length.
<b>WEIGHT</b>	The area of the aortic trifurcation was free of pathology.
10.4kg	<b>Adrenal Glands</b>
<b>INTERPRETED BY</b>	The left adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The left adrenal gland measured 0.45 cm width at the caudal pole and 2.6 cm length. The right adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The right adrenal gland measured 0.40 cm width at the caudal pole and 2.2 cm length.
R. McKenzie Daniel, DVM, DABVP (Canine and Feline)	<b>Spleen</b>
<b>IMAGING PERFORMED BY</b>	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. Alastair Westcott	<b>Liver/Gallbladder</b>
<b>HOSPITAL NAME</b>	The liver exhibited overall normal size and contour with generalized reduced parenchyma echogenicity and moderate coarse echotexture. Diffuse biliary tree mineralization was present throughout.
Dr. Alastair Westcott	The gallbladder was mildly distended in size with mildly thickened to non-homogenous echogenic walls measuring 0.3 -0.35 cm in wall width. Primarily anechoic luminal content and moderate non-dependent variably hyperechoic non-shadowing luminal debris was present. The common bile duct exhibited generalized variable to moderate dilation extending from the gallbladder and cystic biliary duct caudally to the level of the duodenal papilla. Intermittent mucus and ductal calculi were present, an example of calculus measured 0.68 cm. The common bile duct measured up to 1.3-1.6 cm dilation.
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<b>PATIENT</b>	Possible mildly thickened duodenal papilla present measuring 0.5 cm. No obvious evidence of duodenal papilla calculi or overt neoplastic criteria.
Chips Lynch	
	<b>Gastrointestinal</b>
<b>SPECIES</b>	The stomach presented wall thickening secondary to echogenic mucosa hypertrophy. Intact wall layering was maintained and distinct. The gastric body wall measured up to 0.30 cm width. Mild gastric distension with primarily anechoic fluid was present. A focal area of mucosal hyperplasia potentially associated with previous gastric biopsy site was present.
Canine	
<b>BREED</b>	The small intestine presented intact wall layering with 1:3 muscularis/mucosa ratio. The lumen of the small intestine was empty with no signs of ileus, obstruction or foreign material.
Cavalier King Charles	Normal visible colon wall layers were present with apparent formed feces in lumen.
	<b>Pancreas</b>
<b>SEX</b>	The pancreas was normal in size and contour with isoechoic to heterogeneous parenchyma compared to adjacent omentum. No signs of active inflammation or neoplasia.
MN	
<b>AGE</b>	<b>Free Abdomen</b>
7yr	No omental masses, overt lymphadenopathy or peritoneal effusion was present.
	<b>ULTRASONOGRAPHIC FINDINGS</b>
<b>WEIGHT</b>	<ul style="list-style-type: none"> <li>• Diffuse biliary tree mineralization</li> <li>• Cholecystitis with moderate non-organized variably hyperechoic gallbladder debris</li> <li>• Generalized moderate to variable CBD dilation containing intermittent ductal calculi and mucus</li> <li>• Heterogenous pancreas</li> <li>• Hypomotile stomach, possible hypomotile gastritis</li> </ul>
10.4kg	
<b>INTERPRETED BY</b>	<b>INTERPRETATION OF THE FINDINGS &amp; FURTHER RECOMMENDATIONS</b>
R. McKenzie Daniel, DVM, DABVP (Canine and Feline)	Although non-specific the diffuse biliary tree mineralization, evidence of cholecystitis and concurrent gallbladder debris as well as CBD dilation and luminal mucus/mineral are suggestive of probable chronic hepatobiliary inflammation i.e., cholangitis/cholangiohepatitis in conjunction with the progressive ALT elevation. The concurrent elevated GGT and bilirubinemia are suggestive of cholestasis with the potential for emerging post hepatic obstruction.
<b>IMAGING PERFORMED BY</b>	Correlation with pending hepatic and bile cytology with recommended bile C/S if not currently planned is suggested. Pending diagnostics, empirical therapy for cholangitis/cholangiohepatitis with close monitoring for evidence of progressive cholestasis would be reasonable.
Dr. Alastair Westcott	
<b>HOSPITAL NAME</b>	
Dr. Alastair Westcott	
<b>REFERRING VET</b>	Potential laparotomy with CBD flush vs redirection technique, cholecystectomy and hepatic biopsies may ultimately be indicated.
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Chips Lynch

**SPECIES**

Canine

**BREED**

Cavalier King Charles

**SEX**

MN

**AGE**

7yr

**WEIGHT**

10.4kg

**INTERPRETED BY**

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

**IMAGING PERFORMED BY**

Dr. Alastair Westcott

**HOSPITAL NAME**

Dr. Alastair Westcott

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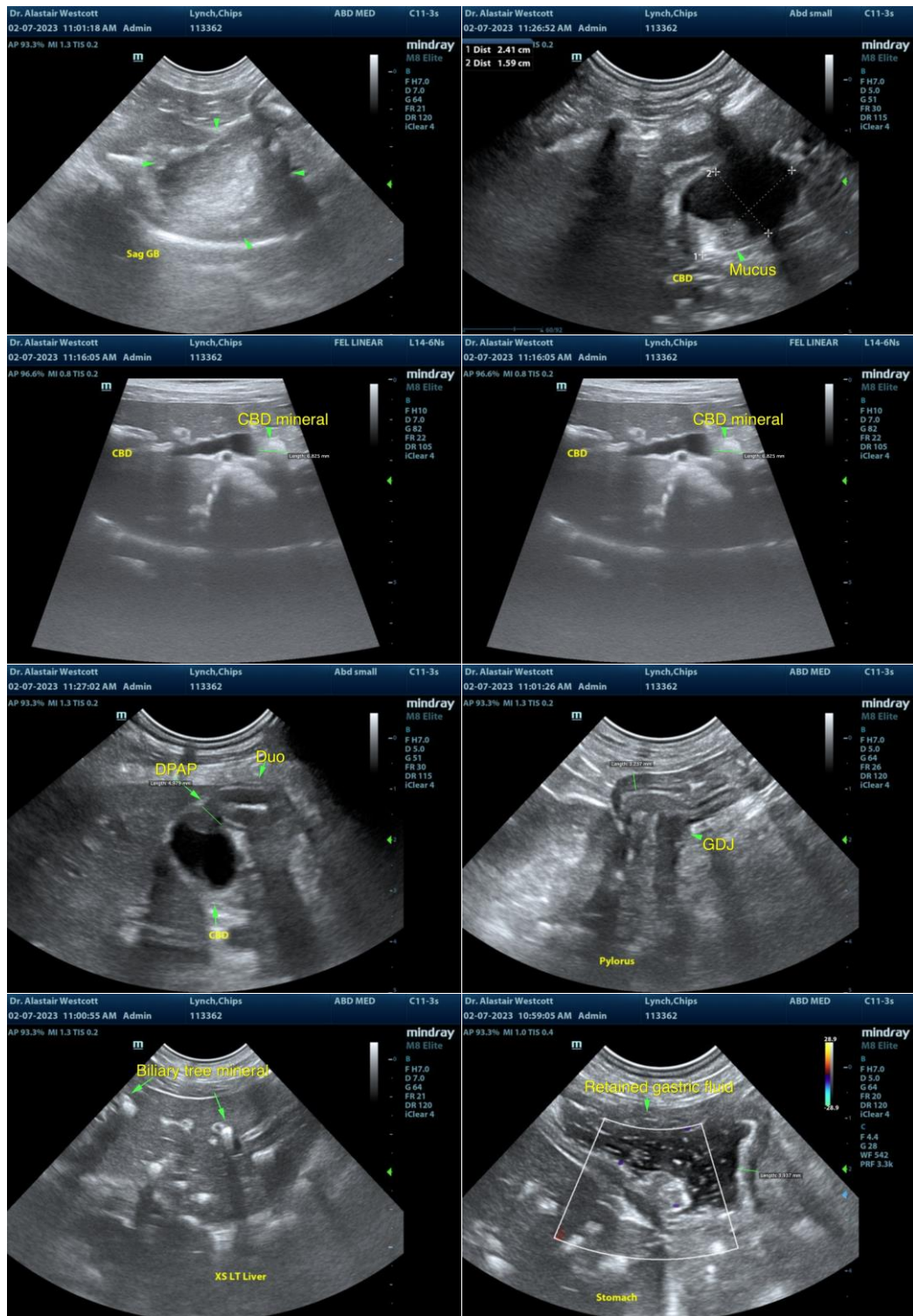
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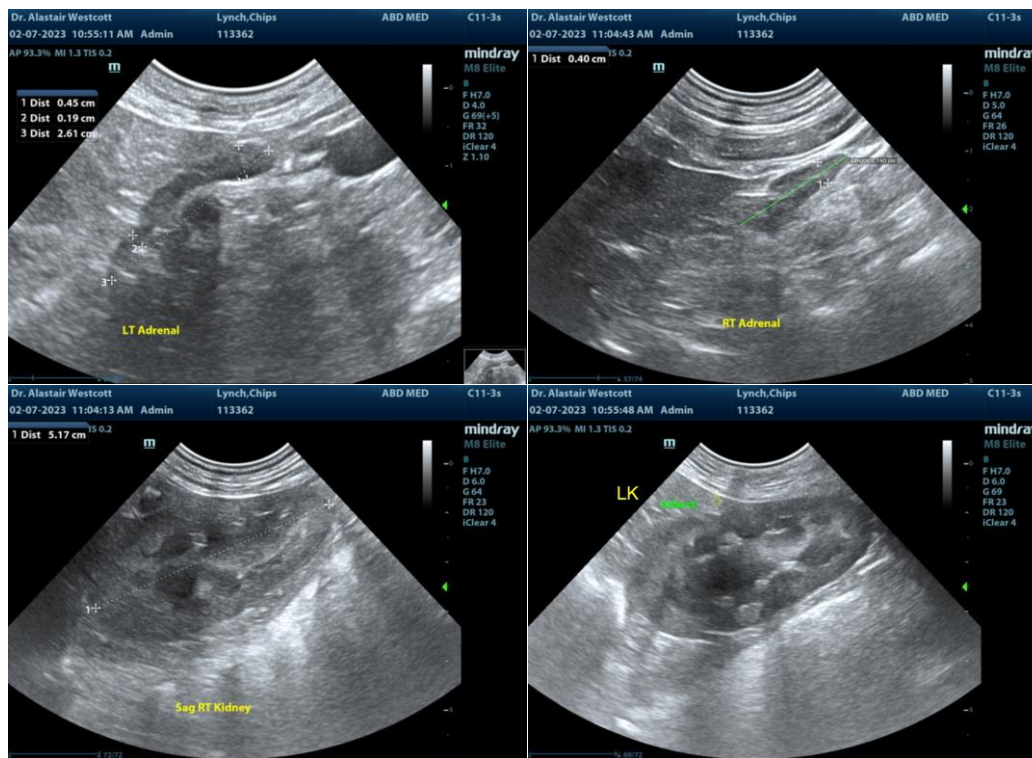
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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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