

**DATE PRESENTING CLINICAL SIGNS**

11/1/22 Recheck AUS. Pet doing well on medication. Previous ultrasound indicated large gall bladder with much mucoid debris.

**PATIENT**

Angus Campbell Current Medications: Is now on Ursodiol 250mg BID and Gabapentin 300mg QD.  
Date of Previous IntraPet Ultrasound: 9/27/22. See attached.  
Sedation: Declined by Dr. Schaupp today – rechecking GB.  
Stat Report: Not requested.

**SPECIES**

Canine

**BREED**

Shepherd X

**SEX**

Neutered Male

**AGE**

5/10/10

**WEIGHT**

74 Pounds

**INTERPRETED BY**

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MS, Diplomate ACVIM  
(Small Animal Internal  
Medicine)

**IMAGING PERFORMED BY**

Stephanie Warga  
RDMS, RVT

**HOSPITAL NAME**

Chadwell AH

**REFERRING VET**

Dr. Schaupp

**INVOICE**

42422

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN****Urinary System**

The urinary bladder is moderately distended with anechoic urine. The Bladder wall, trigone, ureteral papillae and visible urethra (to a depth of 2cm) appear normal with no evidence of wall thickening, mucosal irregularities, masses or cystic calculi.

The prostate is normal in size (0.80 cm) and shape for this neutered male dog. The parenchyma is homogenous and the external margins are smooth. The prostatic urethra appears normal with no evidence of irregularity, invasion, mass effect or calculi.

The left kidney has a normal shape and size (6.12 cm). Overall echogenicity is normal with adequate corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of focal perinephric inflammation or effusion. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

The right kidney has a normal shape and size (6.15 cm). Overall echogenicity is normal with adequate corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of focal perinephric inflammation or effusion. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

**Adrenal Glands**

The left adrenal gland is normal in size measuring 0.67 cm at the caudal pole. It is observed in its normal position cranial to the left renal artery. It is normal in appearance (uniformly hypoechoic) and shape with no evidence of a mass effect.

The right adrenal gland is unable to be clearly visualized due to patient anxiety and panting. Recommend deeper sedation for full visualization.

**Spleen**

The spleen is subjectively normal in size, echotexture is homogenous, and the splenic capsule is smooth with no irregularities. The blood flow through the hilus and splenic parenchyma appears normal. No focal parenchymal abnormalities are visualized.

**Liver**

The liver is large in size, and normal in echogenicity with smooth peripheral margins. The parenchyma is heterogenous in echotexture with subtle, indistinct focal mottling. The visible portions of the vasculature and biliary tract appear normal. No focal nodules or cystic lesions are observed.

The gall bladder lumen is significantly distended. Some areas of the wall appear mildly thickened with adherent debris and some areas have early mucosal stranding and organization of the debris into an early mucocele. There is a large amount of primarily non-organized echogenic debris present as well. There is no evidence of bile duct dilation.

### ***Gastrointestinal***

The stomach contains minimal luminal contents. It measures at a normal thickness of <0.7cm with some variability due to the presence of rugal folds. The distinction of the gastric wall layers is adequate and there is no impression of reduced peristaltic activity. No masses or focal lesions were observed.

The visualized areas of duodenum, jejunum and ileum have a relatively uniform diameter with minimal fluid distension. Wall thickness is normal. Bowel loops follow a curvilinear path with distinct wall layering maintaining the typical 1:3 muscularis:mucosa layer ratio. The duodenum measured as normal (between 0.3-0.5cm in wall thickness) and the jejunum measured as normal (between 0.2-0.47cm.) Visualized peristalsis appears appropriate. There were no focal lesions consistent with obstruction or a mass effect observed.

The ileocecal junction was visualized and exhibited normal intact wall layering and is subjectively of normal thickness. Sections of colon are visualized with formed fecal material and gas shadowing distally. There is no observed focal or generalized colon wall thickening or loss of layering.

### ***Pancreas***

The pancreas is normal and isoechoic to surrounding mesentery. There is no evidence of nodules or cystic lesions. There is no evidence of regional mesenteric inflammation or fluid.

### ***Free Abdomen***

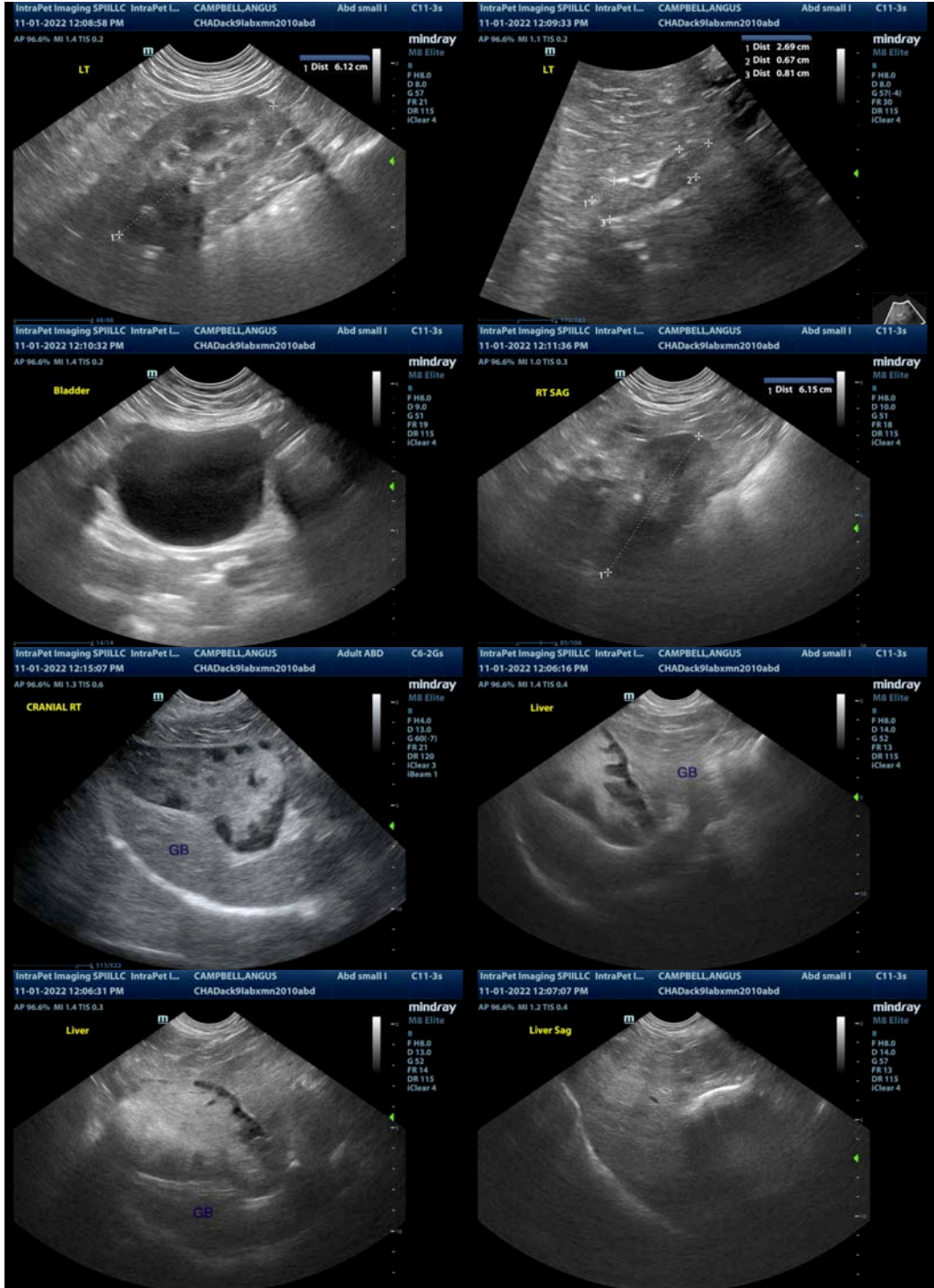
Evaluation of the peritoneal cavity did not reveal any evidence of effusion, or subjective lymphadenomegaly. The Medial iliac nodes appear normal and there was no evidence of a caudal aortic thrombus at the bifurcation. The omentum is of normal uniform echogenicity.

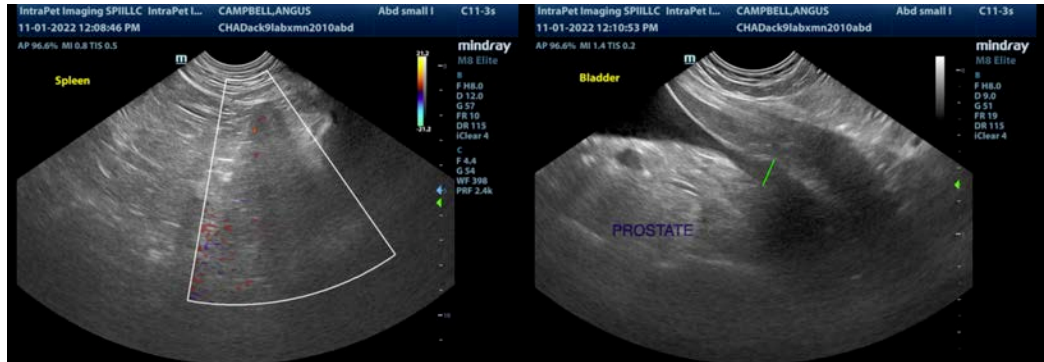
## **ULTRASONOGRAPHIC FINDINGS**

- Large, heterogeneous liver – The diffuse hepatic changes are non-specific and could be consistent with vacuolar hepatopathy, nodular hyperplasia, inflammatory/immune-mediated disease, fibrosis, extramedullary hematopoiesis, toxic hepatopathy (e.g., copper), infiltrative neoplasia (less likely) or other hepatopathy.
- Large, distended gallbladder with a large amount of intraluminal debris and early mucosal stranding – The gall bladder changes are most consistent with a developing mucocele. Consider medical management and close monitoring for progression of this lesion.

## **INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

Today's scan appears relatively similar to the previous scan performed 9/27/22. The gallbladder has a persistent large amount of debris and early organization, consistent with an early gallbladder mucocele. There is no apparent wall thickening or surrounding inflammation. Correlate these findings with clinical signs, lab values, etc. If active gallbladder disease is suspected based on elevation of cholestatic enzymes, GI signs, etc., then I would consider removal of the gallbladder and biopsy of the liver. Alternately, if this is asymptomatic, you could consider close continued monitoring, chronic Ursodiol therapy, and a discussion with the owner to monitor closely for acute abdominal pain, etc.





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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