

**DATE**

9/28/21

**PRESENTING CLINICAL SIGNS**

History: Presenting Complaint: Lethargic; Not Eating. Date: 09-26-2021 Notes: Since June -- Diagnosed with Cushing's, and hypertension - RDVM has been managing / adjusting his Vetoryl, Amlodipine and Enalapril to try to maintain good balance. He was doing ok until started with v/d this week overnight (Thursday).

**PATIENT**

Ollie Bauer

Diarrhea - small amounts, brown/mucus; drinking; will not eat much and vomiting. Saw RDVM yesterday - BUN, Creat and Phos are elevated a little more, anemic, bp is wnl. They gave subq fluids. Famotidine and Cerenia. Gave low fat chicken and Hill's i/d- does not like. RDVM-- hold on Vetoryl until Monday am-- owner unsure of dose but gives BID they want to have them give Amlodipine in am only and Enalapril in pm only. Still drooling and having diarrhea. Owner has collected a urine and fecal sample.

**SPECIES**

Canine

Assessment: Discussed potential causes such as pancreatitis, worsening renal, medications, other. Discussed recommend rehydration with IVF, treat supportively with Gi medications, abx if indicated and monitor for improvement. Discussed if not better, consider US. Recommend looking for large change in renal, manage bp, send off the urine and fecal

**BREED**

Yorkshire Terrier

owner consents. For now, keep with the recommendations given by the RDVM for Trilostane and blood pressure medications.

**SEX**

Neutered male

Current Medications: Trilostane, Amlodipine, Enalapril, Famotidine, and Cerenia.

Lab Results: BUN, Creat and Phos are elevated a little more, anemic, bp is wnl. Urine/fecal results attached separately within request form.

Radiographs: Renoliths.

Date of Previous IntraPet Ultrasound: No previous IntraPet scans.

Sedation: Sedation not required for scan.

Stat Report: STAT report not requested by the veterinarian.

**AGE**

1/25/13

**WEIGHT**

19.6 lbs

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

The urinary bladder is moderately distended with mildly echogenic 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.

**INTERPRETED BY**

Kathleen Sennello  
DVM, MS, Diplomate  
ACVIM (Small Animal  
Internal Medicine)

The prostate is normal in size (XXcm) 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.

**HOSPITAL NAME**

Animal Emergency  
Hospital

The left kidney has a normal shape and size (5.12 cm). Overall echogenicity is slightly hyperechoic with poor corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of perinephric inflammation or effusion. Pyelectasia was noted and measured 0.27 cm and a non-obstructive nephrolith was noted measuring 0.83 cm. There is no evidence of infarcts or hydroureter. Renal vasculature is normal.

**REFERRING VET**

Dr. King

The right kidney has a normal shape and size (5.77 cm). Overall echogenicity is slightly hyperechoic with poor corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of perinephric inflammation or effusion. A non-obstructive nephrolith was noted at 0.23 cm and 0.62 cm. Pyelectasia was noted and measured 0.15 cm. There is no evidence of infarcts or hydroureter. Renal vasculature is normal.

**INVOICE**

92041

**Adrenal Glands**

The left adrenal gland is normal/borderline enlarged in size measuring 0.81 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 normal/borderline enlarged in size measuring 0.81cm at the caudal pole It is observed in its normal position between the cranial aspect of the right kidney and the caudal vena cava. It is normal in appearance (uniformly hypoechoic) and shape with no evidence of a mass effect.

### **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 subjectively normal in size, and 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. There is a hyperechoic, small nodule visualized at 0.64 cm and a small cystic lesion at 0.71 cm. The gallbladder lumen is moderately distended. The wall of the gallbladder is not thickened and has a smooth mucosal surface. The gallbladder wall measures 0.15 cm. There is a moderate amount of non-organized echogenic debris. The cystic and common bile ducts are normal/not visible.

### **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 (0.4 cm) and the jejunum measured as normal (0.31 cm). 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 prominent and hypoechoic as compared to the surrounding isoechoic 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**

### **PRIMARY FINDINGS:**

- Large heterogenous liver with a small, hyperechoic nodule and a cystic lesion. 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.

- Bilateral adrenomegaly. The bilateral adrenomegaly could be consistent with bilateral hyperplasia (e.g., secondary to pituitary-dependent hyperadrenocorticism), bilateral infiltrative neoplasia, inflammatory adrenal disease, other. Correlation with clinical findings is recommended.
- Moderate gallbladder debris. The significance of the aggregated gallbladder debris is unclear. This could represent an early mucocele, cholestasis, or may be secondary to fasting.
- Prominent, hypoechoic pancreas. The pancreatic changes are most consistent with mild pancreatitis/pancreatic infiltration. I recommend fPLI testing and continued monitoring for improvement or possible development of a pancreatic abscess. Consider FNA if not improving.
- Non-obstructive nephroliths and bilateral pyelectasia. Mild loss of corticomedullary distinction in both kidneys could be consistent with chronic degenerative disease or interstitial nephrosis. Pyelectasia of the left/right kidney could be consistent with pyelonephritis, chronic renal disease, secondary to PU/PD or fluid therapy (if applicable), other. The hyperechoic mineralized foci observed at the corticomedullary junction of the left/right kidney are consistent with small, non-obstructive nephroliths.

#### SECONDARY FINDINGS:

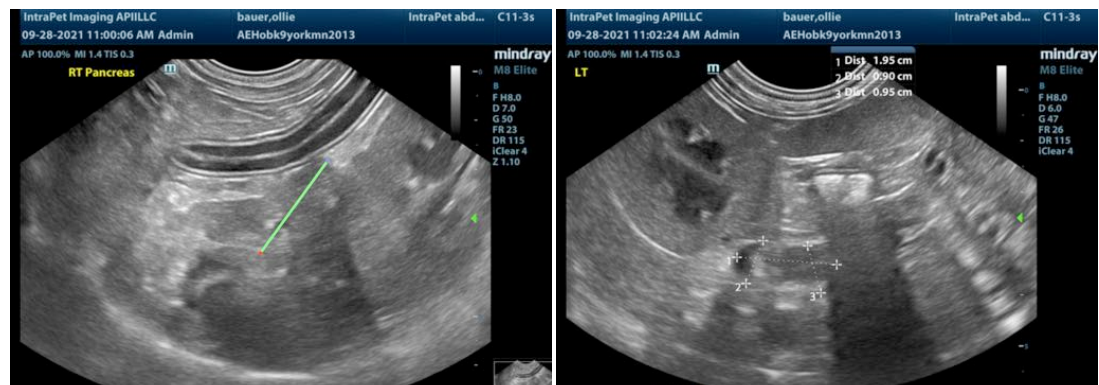
- Bilaterally decreased corticomedullary distinction.
- Echogenic debris in the urinary bladder. The echogenic debris in the bladder lumen could be consistent with cells, crystals, and/or mucus. Recommend urinalysis and culture.

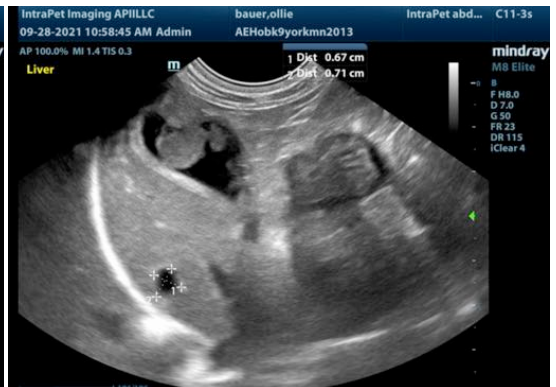
#### INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The renal changes observed could be consistent with the azotemia reported. I recommend urinalysis and culture, diuresis and an ACTH stimulation test. I recommend not restarting Trilostane unless the patient is feeling better and the cortisol levels are demonstrated to be normal.

The pancreas is somewhat prominent. You can consider a PLI test to further evaluate for pancreatic inflammation.

The liver changes observed are likely secondary to the Cushing's disease that was previously diagnosed, but the focal lesions should be monitored.







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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