

**DATE PRESENTING CLINICAL SIGNS**

6/29/23

Hx of cardiac disease and Cushings-- on pimo and vetoryl respectively. After acting normally this am-- acutely distended (not torsed) stomach and very shocky. Immediately pass orogastric and started GI meds and fluids. Improving, but feel is still dehydrated-- mm tachy-- increase IVF. Rads-- stomach is still a little gas distended, but no where near what it was, attempt food trial. Concurrent LE and Renal Elevations.

**PATIENT**

Sarge Stecker

ALT 2302, ALKP 1652, BUN 63, Creat 2.1, Phos 10.6, Hemoconcentration 57/11.2, Increase amylase/lipase 30,000 WBC and increase in platelets. PE- Dry MM, dark pink, skin tenting, abdomen - thin, ambulatory. Lungs clear, murmur - quiet, pulses synchronous, moderate

**SPECIES**

Canine

Current Medications: Ondansetron, Ampicillin, Ceena, Metolopraide, Protonix.  
Lab Results: See attached.

**BREED**

Dachshund X

Radiographs: stomach is still somewhat distended, but nowhere near where it was. No obvious mass/ fb can see a possible mottled region-- cannot say is not feces

Date of Previous IntraPet Ultrasound: No previous.

Sedation: Not required to complete full diagnostic ultrasound.

Stat Report: STAT requested.

Imaging Performed By: Rachel Brillhart, RDMS.

**SEX**

Neutered Male

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN****AGE**

2/1/07

**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.

**WEIGHT**

13.4 Pounds

The prostate is normal in size (1.4 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.

**INTERPRETED BY**

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

The left kidney is normal in size at 5.21 cm with too numerous to count large cortical cysts, the largest of which measures at 1.72 cm. Overall echogenicity is slightly hyperechoic with poor 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 hydronephrosis. Renal vasculature is normal.

**HOSPITAL NAME**

Animal Emergency  
Hospital

The right kidney is normal in size at 5.49 cm with too numerous to count large cortical cysts, the largest of which measures at 3.36 cm. Overall echogenicity is slightly hyperechoic with poor 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 hydronephrosis. Renal vasculature is normal.

**REFERRING VET**

Dr. Ruby

**Adrenal Glands****INVOICE**

43547

The left adrenal gland is large and hypoechoic, measuring 1.09 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 large and hypoechoic, measuring 0.75 cm 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. The spleen echotexture is heterogenous and mottled, the splenic capsule is smooth with no irregularities. The blood flow through the hilus and splenic parenchyma appears normal. There are numerous patchy hypoechoic regions in the spleen. One such region is more focal, creating an ill-defined nodule measuring 1.09 cm in diameter.

### ***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 gallbladder lumen is moderately distended. The wall of the gall bladder is not thickened and has a smooth mucosal surface. Luminal contents are mild and primarily anechoic. The cystic and common bile ducts are normal/not visible.

### ***Gastrointestinal***

The stomach is severely fluid dilated. 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.

Most of the visualized areas of jejunum and ileum have a relatively uniform diameter with minimal fluid distension. Wall thickness in these areas is normal. Bowel loops follow a curvilinear path with distinct wall layering maintaining the typical 1:3 muscularis:mucosa layer ratio. The jejunum measures normal at 0.24 cm. Visualized peristalsis appears appropriate. In the region of the proximal duodenum, there is significant fluid dilation of the duodenum and wall thickening. The duodenal wall measures 0.54 cm with intact wall layering. A focal shadowing structure is visualized measuring 2.98 cm and appears to be causing an obstruction. The fluid dilated duodenum can be followed from the foreign body orad to the pylorus and the fluid dilated stomach.

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 right limb of the pancreas is large and hypoechoic to surrounding mesentery. There is no evidence of nodules or cystic lesions. There is evidence of regional mesenteric inflammation. Consistent with moderate/severe pancreatitis.

### ***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 severely hyperechoic in the cranial abdomen around the pancreas.

The right auricle and pericardium were visualized and were unremarkable. No obvious pathology is visualized. If cardiac function evaluation is desired a full echocardiogram is warranted.

## **ULTRASONOGRAPHIC FINDINGS**

- 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. This is consistent with the current diagnosis of pituitary dependent hyperadrenocorticism.

- Decreased corticomedullary distinction in both kidneys with too numerous to count large cortical cysts – Mild loss of corticomedullary distinction in both kidneys could be consistent with chronic degenerative disease or interstitial nephrosis. Findings are consistent with benign polycystic renal disease.
- Mottled spleen with ill-defined hypoechoic nodule – The diffuse splenic changes are non-specific and could be consistent with lymphoid hyperplasia, extramedullary hematopoiesis, infiltrative neoplasia, inflammation, other. Cytology or histopathology would be necessary to get a definitive diagnosis.
- Severely enlarged, irregular, hypoechoic right limb of the pancreas with surrounding hyperechoic mesentery – The pancreatic changes are most consistent with moderate to severe pancreatitis/pancreatic inflammation. Recommend fPLI testing and continued monitoring for improvement or possible development of a pancreatic abscess. Consider fine needle aspirate if not improving.
- 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. This is likely consistent with a vacuolar hepatopathy.
- Severely fluid distended stomach and proximal duodenum with a shadowing foreign object visualized within the duodenal lumen – Findings are most consistent with an obstructive foreign body.

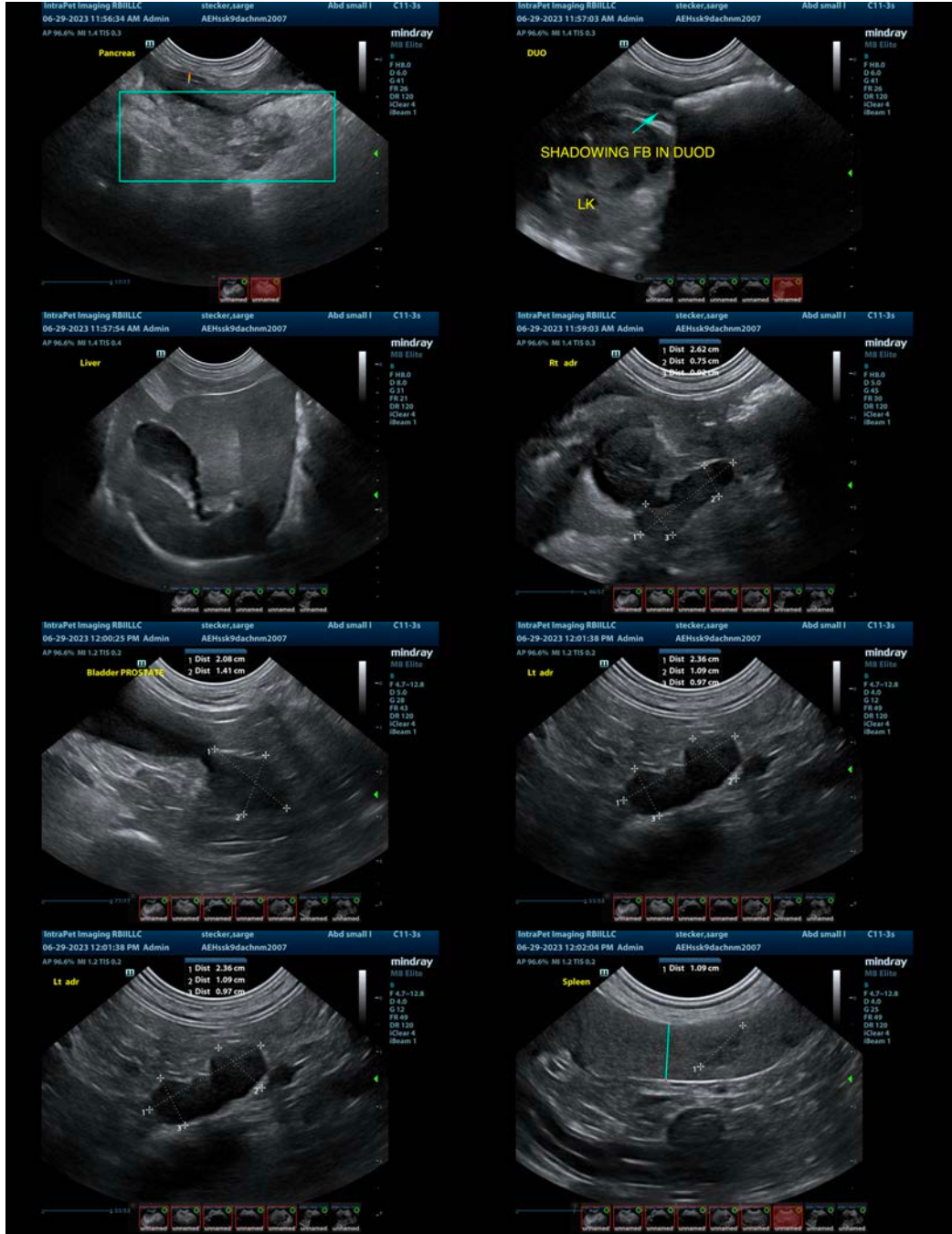
### **INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

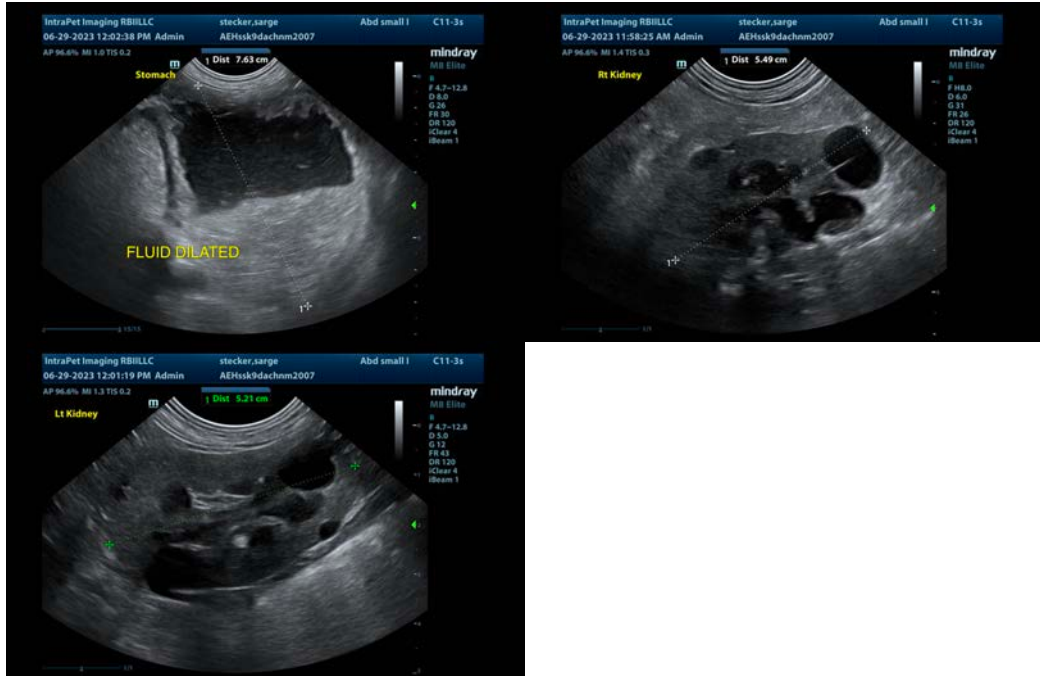
The two most concerning lesions visualized are the obstructing duodenal foreign body and the moderate to severe pancreatitis. This patient should ideally be stabilized and then have surgery for its small intestinal obstruction and concurrent treatment for pancreatitis. Prognosis is somewhat guarded based on the complicating factor of the pancreatitis. If a bowel resection is necessary in this region, the area of the duodenal papilla would have to be closely monitored, etc.

Many of the other changes are consistent with the Cushing's disease currently diagnosed. This includes the large heterogeneous liver and the enlarged adrenal glands.

There are changes visualized in both kidneys with severe polycystic renal disease. Recommend blood pressure, urinalysis and culture as a baseline, and continued monitoring of the current azotemia. It is unknown what portion of this prerenal versus primary renal azotemia at this time.

Additionally, recommend close monitoring for progression of the heart disease, given the likely fluid administration under these circumstances. There is no evidence of significant pleural effusion or any large intrathoracic mass lesions.





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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