

**DATE PRESENTING CLINICAL SIGNS**

7/27/23

Patient has had intermittent vomiting and lethargy over the past month. P appetite waxes and wanes. Discussed further diagnostics but owner would like aus. Concerned about possible partial obstruction vs splenic issues based on breed and age

**PATIENT**

Randy Wahbe

Current Medications: None listed.  
Lab Results: See attached.

**SPECIES**

Canine

Date of Previous IntraPet Ultrasound: No previous.  
Sedation: Dexdomitor/Torbugesic IV.  
Stat Report: Not requested.  
Imaging Performed By: Stephanie Warga RDCS, RVT.

**BREED**

Larador

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN****SEX**

Neutered Male

**Urinary System**

The urinary bladder is moderately distended with anechoic contents. No masses, inflammatory changes, or echogenic sediment observed. A 0.50 cm mineral density is noted within the prostate that appears to be within the intraprostatic urethra. Having said that, prostatic parenchymal mineralization, while thought less likely, cannot be definitively ruled out. The urinary bladder, trigone and visible pelvic urethra are normal in thickness with a smooth mucosal surface.

**AGE**

2/10/15

Prostate is mildly enlarged (2.4 cm wide). Parenchyma is diffusely homogenous and relatively hyperechoic. Normal distinct margins and symmetrical bilobed shape are maintained. This finding is likely normal patient variant, especially if patient was neutered as an adult; however, if patient was neutered as a puppy, prostatitis or, less likely, infiltrative neoplasia cannot be ruled out. This finding should be interpreted in combination with clinical signs, urinalysis results, etc. and either further investigated or monitored, as indicated. \*\*See urinary bladder.

**WEIGHT**

108 Pounds

**INTERPRETED BY**Beth Johnson, DVM  
DACVIM

The right kidney is normal in size (7.21 cm), shape and echogenicity. It has smooth peripheral margination. There is a normal 1:3 cortex to medulla ratio with appropriate corticomedullary distinction. There is no evidence of pyelectasia, mineral or infarcts observed.

**HOSPITAL NAME**

Northwind AH

The left kidney is normal in size (7.97 cm), shape and echogenicity. It has smooth peripheral margination. There is a normal 1:3 cortex to medulla ratio with appropriate corticomedullary distinction. There is no evidence mineral or infarcts observed. Pyelectasia is noted measuring 0.47 cm in the transverse view.

**REFERRING VET**

Dr. Jones

**Adrenal Glands**

Adrenal glands are largely normal in size, shape and contour. Some parenchymal heterogeneity is present without concerning capsular distortion. These changes are likely normal for this age but should be monitored if there is any suspicion of adrenal disease. The left adrenal gland measured 0.63 cm at the cranial pole and 0.67 cm at the caudal pole. The right adrenal gland measured 0.91 cm at the cranial pole and 0.71 cm at the caudal pole.

**INVOICE**

44440

**Spleen**

The spleen is subjectively normal in size with a normal smooth capsular contour. Parenchyma is appropriately finely textured and homogenous with normal echogenicity relative to surrounding tissue (hyperechoic to liver). No focal nodules or masses are observed. Splenic vasculature appears normal.

### ***Liver***

The liver is subjectively normal in size with normal smooth curvilinear peripheral contour. Parenchyma is appropriately hypoechoic to the spleen in echogenicity and appropriately mildly coarse and homogenous in echotexture. No focal lesions are observed. Visible vasculature and biliary tree appear normal without distension or congestion.

Gallbladder is moderately distended with anechoic bile as well as suspended and gravity dependent echogenic debris. The wall is smooth without visible thickening. There is no evidence of cystic or CBD dilation. There is no evidence of effusion or inflammation.

### ***Gastrointestinal***

The stomach wall is normal in thickness (canine < 0.5 cm and feline < 0.4 cm) and layering. The lumen of the stomach is empty with no evidence of obstruction, foreign material or infiltrative disease. Pyloric outflow tract appears patent.

The visible small intestine demonstrates areas of thick muscularis layer relative to mucosa (disruption of the normal 1:3 muscularis:mucosa ratio). Small intestinal submucosa is slightly irregular, thick and hyperechoic, without evident loss of layering appreciated. The lumen is empty with no evidence of obstruction or foreign material.

The visible colon is normal in wall thickness (< 0.2 cm) and layering. Contents are consistent with normal formed feces and gas.

### ***Pancreas***

The observed pancreas is prominent (enlarged) in size, hypoechoic to surrounding tissue and irregular in shape with a swollen undulating contour. Enhanced hyperechoic ill-defined surrounding fat is noted.

### ***Free Abdomen***

There is no evidence of free peritoneal effusion noted in these images.

There is no apparent lymphadenopathy noted in these images.

## **PRIMARY FINDINGS**

- Moderate to severe acute pancreatitis is suspected.
- On top of the pancreatitis, there is believed to be some concurrent infiltrative bowel disease – Thick muscularis has been reported with infiltrative bowel disease including both benign inflammatory disease as well as infiltrative neoplasia such as lymphoma. No aggressive lymphadenopathy, loss of layering, etc. is noted to make lymphoma more probable, but lymphoma cannot be definitively ruled out without tissue sampling.

## **SECONDARY FINDINGS**

- Mild gallbladder debris - Cholecystic debris is of unknown clinical significance. It can be seen with biliary stasis from fasting or illness. Cholecystic debris is not necessarily related to hepatobiliary disease. Echogenic bile is most commonly an incidental finding in dogs and should be interpreted in combination with clinical signs such as nausea, inappetence, cranial abdominal discomfort and/or laboratory changes such as increased ALP and/or increased Tbili.

- Age related adrenal gland changes
- Mild left kidney pyelectasia – Differentials for pyelectasia include pyelonephritis, diuresis, congenital malformation or ureteral or lower urinary tract obstruction.
- Mineral within the prostate that appears most consistent with a non-obstructive urethrolith. Having said that, given the concurrent mild prostatomegaly, monitoring should be considered.

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

A gastrointestinal malabsorption panel (including cobalamin, folate, TLI and PLI) to Texas A&M GI Laboratory is recommended for further evaluation of GI and pancreatic function.

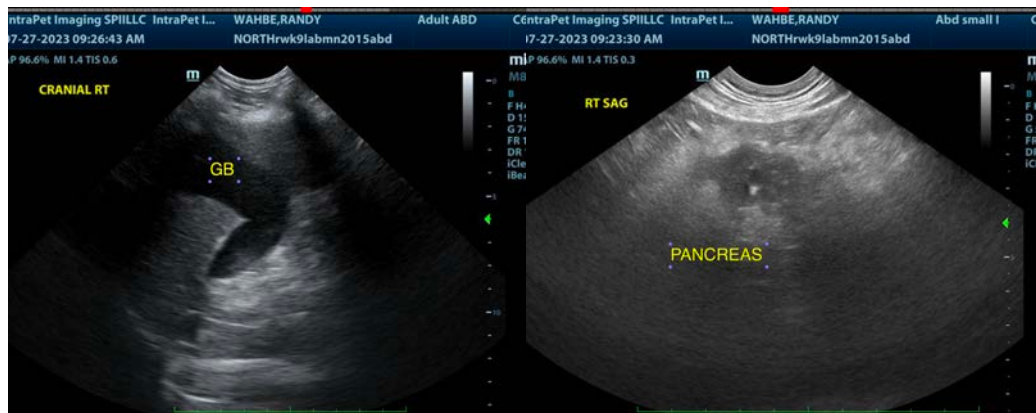
Given the reported eosinophilia, a baseline cortisol is recommended. If baseline cortisol is less than 2, a full ACTH stimulation test is recommended to rule out hypoadrenocorticism.

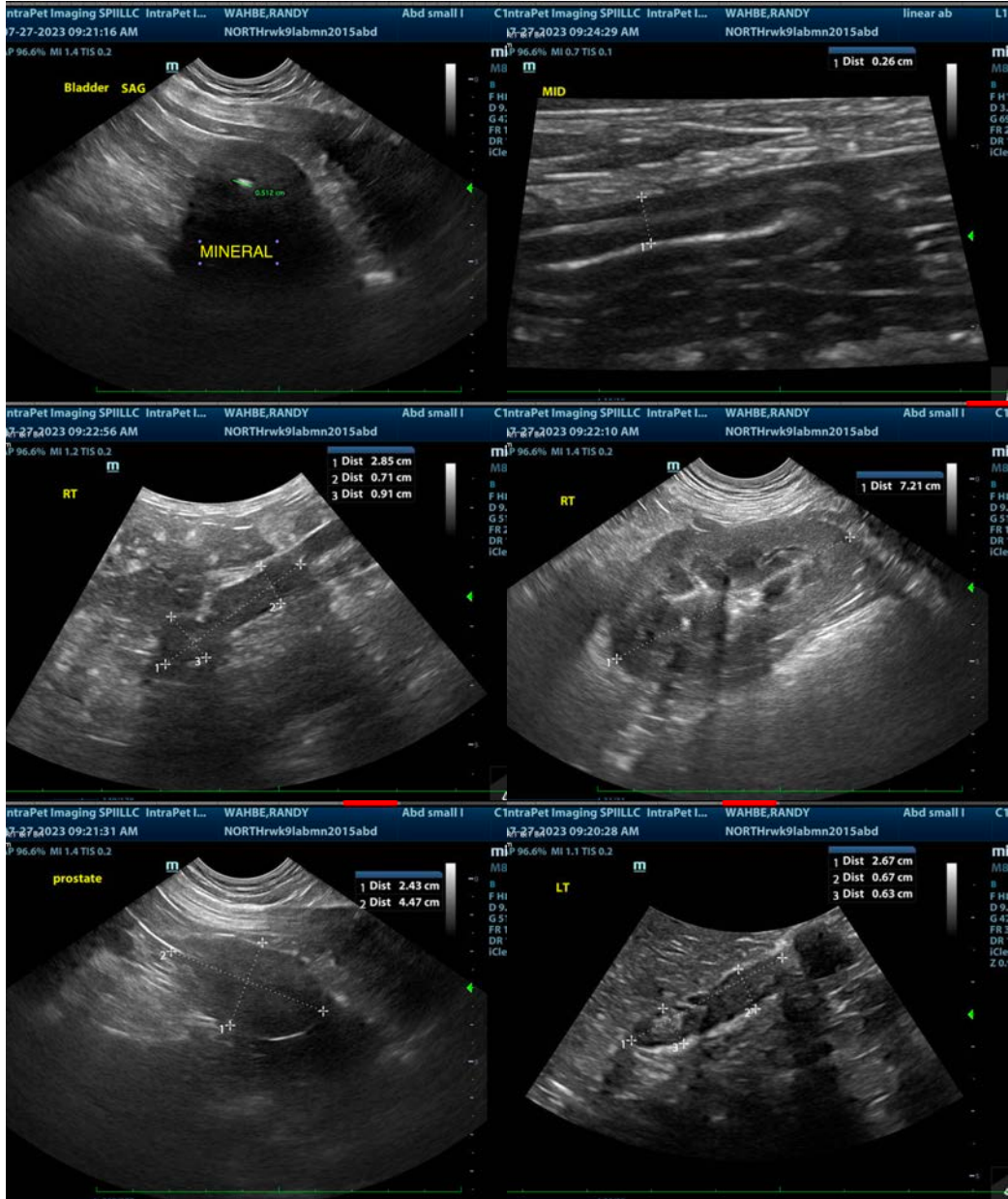
A fecal exam is also recommended, if not recently evaluated.

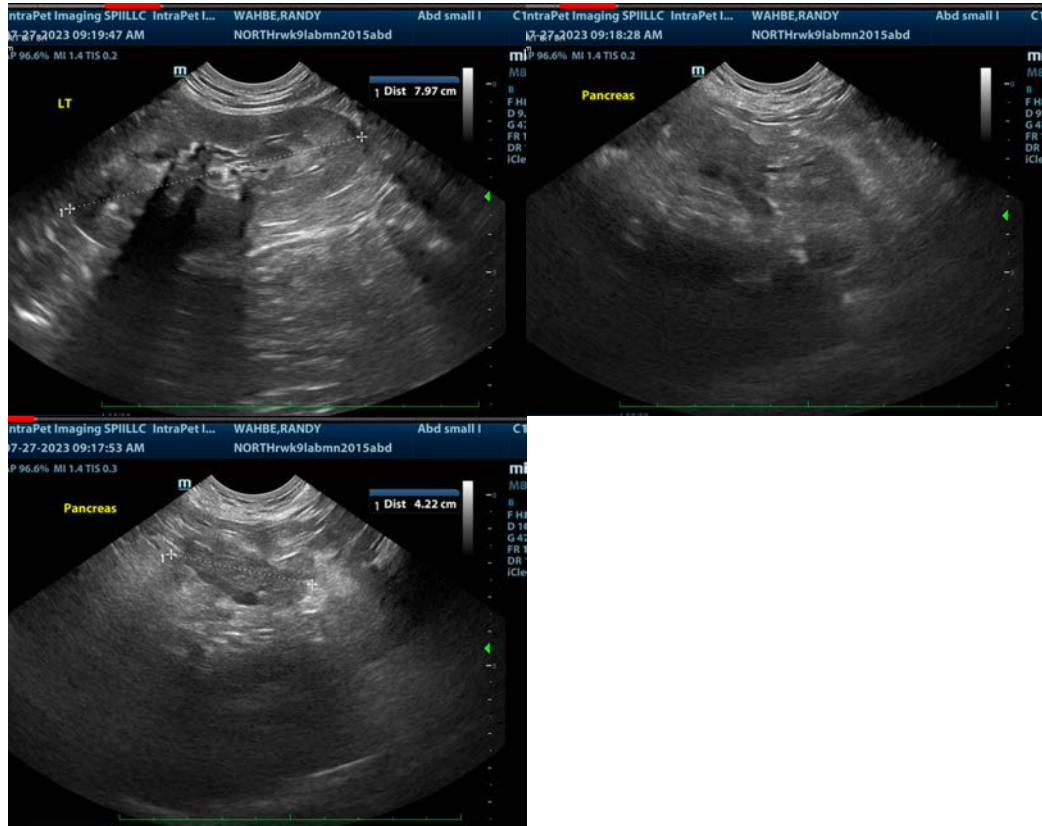
In the meantime, medical management of pancreatitis with anti-emetics, gastroprotectants, appetite stimulants or nutritional support as needed, pain management, broad spectrum antibiotics, and fluid therapy is recommended. Monitoring of the pancreas with power doppler is recommended to identify possible necrosis as well as other potential sequelae such as abscesses, etc.

Ultimately, further evaluation of this patient’s gastrointestinal tract may be necessary up to and including biopsies. However, in the meantime, especially given the reported eosinophilia, empirical deworming with a 5-day course of Panacur is recommended, and after the resolution of the acute pancreatitis, if tolerated, transition in diet could be considered, beginning with a hydrolyzed protein diet based on trial-and-error response.

As mentioned above, given the mild prostatomegaly and the mineral, monitoring of the prostate is recommended, especially if there is any development of clinical signs such as hematuria, stranguria, 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.

**Beth Johnson, DVM, DACVIM**  
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