

**DATE PRESENTING CLINICAL SIGNS**

12/27/22

Nausea, vomiting, and not eating for about 2 days. History of diabetes; has not been easy to regulate for past couple years. Recently changed from Lantus (9 IU BID) to Vetsulin (7 IU BID). Also has/medicated for Mitral Valve regurg, hypertension, and hypothyroidism.

PATIENT

Finn Kruk

Current Medications: enalapril, pimobendan, ondanestron, ampicillin/sublactam, vetoryl, amlodipine
Lab Results: See attached.

Date of Previous IntraPet Ultrasound: No previous.

Sedation: Not required to complete full diagnostic ultrasound.

Stat Report: Not requested.

Imaging Performed By: Rachel Brilhart, RDMS.

SPECIES

Canine

BREED

Maltese

SEX

Neutered Male

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. An inflated foley catheter is visualized in a normal position at the trigone of the urinary bladder.

AGE

12/14/12

The prostate is normal in size (0.85 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.

WEIGHT

9.2 Pounds

The left kidney has a normal shape and size (4.43 cm) with mild pyelectasia at 0.20 cm and diffuse hyperechoic speckling throughout the renal parenchyma. 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 nephroliths, infarcts or hydroureter. Renal vasculature is normal.

INTERPRETED BY

Kathleen Sennello DVM,
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(Small Animal Internal
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The right kidney has a normal shape and size (4.66 cm) with diffuse hyperechoic speckling throughout the renal parenchyma. Small cortical cysts are noted. 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 hydroureter. Renal vasculature is normal.

HOSPITAL NAME

Animal Emergency
Hospital

Adrenal Glands

The left adrenal gland is borderline large, measuring 0.80 cm at the cranial pole, 1.19 cm at the caudal pole, and 2.67 cm in length. It is observed in its normal position cranial to the left renal artery. It is slightly irregular in appearance in that the caudal pole appears prominent but has no significant mass effect. Recommend continued monitoring. No evidence of vascular invasion is visualized.

REFERRING VET

Dr. Willer

The right adrenal gland is borderline large, measuring 0.89 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.

INVOICE

43738

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. There are small hyperechoic foci visualized throughout the splenic parenchyma.

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 moderately distended. The wall of the gall bladder is not thickened and has a smooth mucosal surface. 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. Duodenum wall measures 0.40 cm. Jejunum wall measures 0.32 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

- Prominent caudal pole of the left adrenal gland – Both adrenal glands appear borderline enlarged. The caudal pole of the left adrenal gland is somewhat prominent. Recommend a blood pressure evaluation and continued monitoring for a change in the appearance of this adrenal.
- Decreased corticomedullary distinction in both kidneys with mild left-sided pyelectasia and occasional cortical cysts and hyperechoic speckling noted throughout the renal parenchyma – The bilateral renal findings are consistent with age-related change. The hyperechoic speckles could represent small mineralizations and are likely a benign finding.
- Hyperechoic foci visualized throughout the splenic parenchyma – These lesions likely represent benign change such as mild calcification, myelolipomas, etc.
- Prominent hypoechoic pancreas – These changes likely represent either mild current pancreatitis or a previous episode of pancreatic inflammation.
- 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 diabetic hepatopathy.

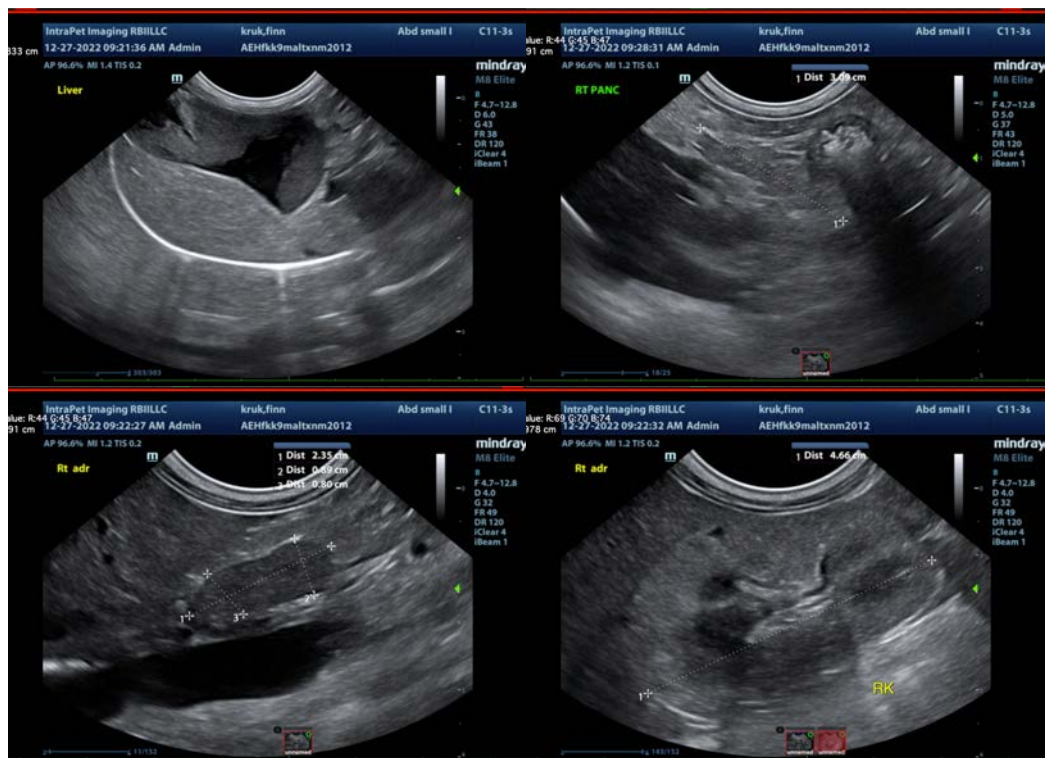
- Moderate gallbladder debris – The significance of the aggregated gallbladder debris is unclear. This could represent an early mucocele, cholestasis, or may be secondary to fasting but seems unlikely to be causing a current issue. Recommend continued monitoring.

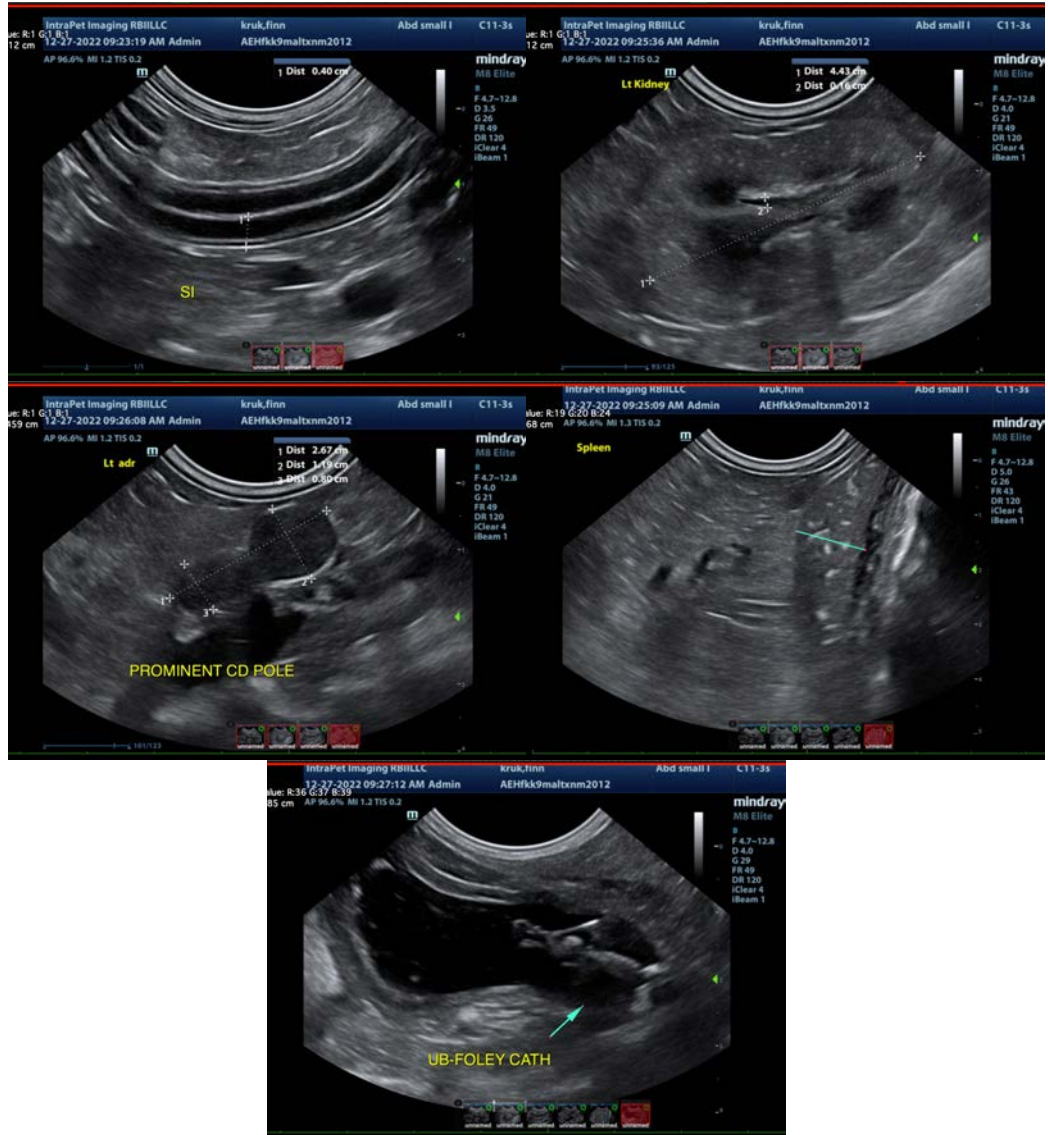
INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

No focal lesions are visualized associated with the gastrointestinal tract to explain the anorexia and vomiting and reported. Although the pancreas does appear somewhat prominent, it is not overtly inflamed, but could be responsible for the symptoms described. Correlate this finding with a quantitative cPLI and consider symptomatic treatment for pancreatitis.

Both adrenals appear somewhat large for a pet of this size. Additionally, the caudal pole of the left adrenal gland is somewhat prominent. Recommend a blood pressure evaluation and continued monitoring of the left adrenal gland. Additionally, if there is persistent dysregulation of the diabetes and Cushing's disease is suspected, adrenal function testing could be considered.

There are changes in both kidneys consistent with chronic age related change. Recommend a blood pressure, urinalysis and culture to obtain a baseline.





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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