

**DATE**

12/29/21

PRESENTING CLINICAL SIGNS

History: Pet presented on 12/1/2021 for vomiting, decreased appetite, lethargy and 1.5 lb weight loss in 6 months.

PATIENT

Freddie Dugan

Current Medications: Cerenia injection, Lactulose: 2 ml PO BID.

Lab Results: Calcium 13.1, Elevated WBCs, Elevated Amylase, Mild elevation in proteins, MSU Hypercalcemia Malignancy, Parathyroid Hormone: <0.5, Ionized calcium: 1.51. Parathyroid related protein: 0.0. Attached separately.

SPECIES

Feline

Radiographs: Constipation noted (resolved now). Attached separately.

Date of Previous IntraPet Ultrasound: No previous IntraPet scans.

Sedation: Not required to complete full diagnostic ultrasound.

BREED

DSH

Stat Report: Not requested.

Imaging Performed By: Rachel Brillhart, RDMS

SEX

Spayed Female

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**Urinary System**

The urinary bladder is moderately distended with mild primarily suspended echogenic debris present. 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 calculi. Echogenic debris of this type can be associated with small crystals, cellular debris and proteinaceous debris.

AGE

4/15/18

The left kidney has a normal shape and size (4.42 cm). Overall echogenicity is normal with adequate corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of perinephric inflammation or effusion. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

WEIGHT

9.52 Lbs.

The right kidney has a normal shape and size (4.43 cm). Overall echogenicity is normal with adequate corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of perinephric inflammation or effusion. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

INTERPRETED BY

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

Adrenal Glands

The left adrenal gland is normal in size measuring 0.39 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.

HOSPITAL NAME

Frederick Road VH

The right adrenal gland is normal in size measuring 0.37 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.

REFERRING VET

Dr. Franchini

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.

INVOICE

13236

Liver

The liver is subjectively normal in size, and echogenicity with smooth peripheral margins. The parenchyma is homogenous echotexture. 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. Luminal contents are primarily anechoic. The cystic and common bile ducts are normal/not visible.

Gastrointestinal

The stomach contains minimal luminal contents. It measures at a normal thickness of <0.36 cm 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 uniform diameter with minimal fluid distension. Wall thickness is normal to slightly increased. Bowel loops follow a typical curvilinear path with distinct wall layering, but some areas display a prominent muscularis layer which does not display the typical 1:3 muscularis:mucosa layer ratio. The jejunum measured 0.26 cm in diameter. 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. Many sections of colon are visualized and appear distended with heavy shadowing stool, particularly in the distal colon, potentially consistent with constipation. There is no 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

No free fluid present. There are several prominent mesenteric lymph nodes visualized, particularly at the root of the mesentery, measuring 0.31 cm and 0.24 cm. Additionally, the colonic lymph node is prominent, measuring 0.62 cm in diameter. The omentum is of normal echogenicity.

ULTRASONOGRAPHIC FINDINGS

- 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
- Prominent hypoechoic pancreas. The pancreatic changes are most consistent with age-related parenchymal remodeling, potentially secondary to a prior inflammatory episode, early fibrosis or chronic pancreatitis.
- Prominent muscularis layer to the small intestine. The small intestinal wall changes are most consistent with an inflammatory process (i.e., inflammatory bowel disease) with a low possibility of emerging lymphoma.
- Prominent mesenteric lymph nodes. The prominent abdominal lymph nodes are most consistent with reactive lymphadenitis or lymphoid hyperplasia. Neoplastic infiltration is considered less likely.
- Distended, heavily shadowing stool in colon, possibly consistent with constipation/full colon. Recommend correlation with radiographs.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

There are some mild small intestinal changes and prominent mesenteric lymph nodes visualized on today's

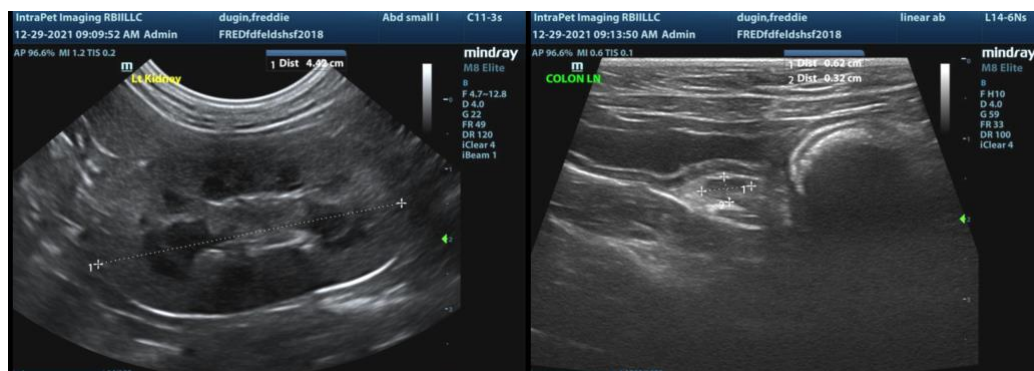
exam. These could be consistent with some inflammatory changes to the bowel, less likely neoplastic change.

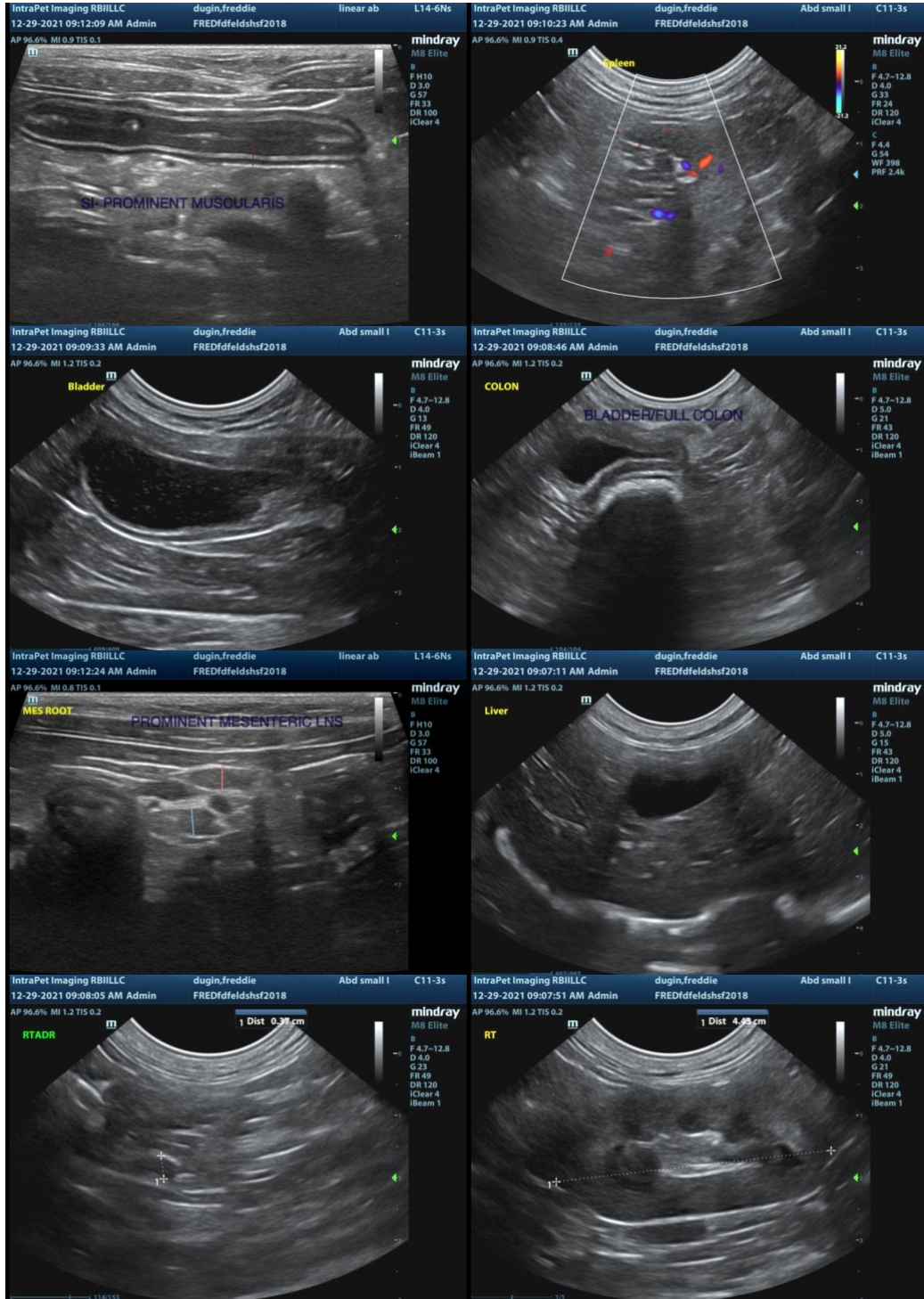
- Consider a GI panel (to Texas A & M) with qualitative FPLI, TLI, cobalamin and folate to further evaluate the pancreatic and small intestinal changes visualized.
- Consider a novel protein or hydrolyzed protein prescription diet.
- Consider symptomatic treatment for pancreatitis, including fluids antinausea medications, etc.

There is the suggestion of a large amount of stool within the distal colon. This could be consistent with continued constipation. Correlate these findings with radiographs. I feel that MiraLAX is much better tolerated and works better than Lactulose without leaving a sticky residue etc. Sometimes chronic constipation will cause weight loss and vomiting due to discomfort. If symptoms of vomiting and weight loss persist, consider obtaining GI biopsies.

Consider urinalysis and culture to further evaluate the mild echogenic debris in the urinary bladder.

Your hypercalcemia panel confirms the calcium elevation and makes hyperparathyroidism very unlikely. I recommend rectal exam to evaluate the anal glands and oral exam to look for any evidence of an oral malignancy. Today's scan did not identify any mass effects. Scrutinize the CBC for any lymphocytosis or abnormal cells and I recommend three-view thoracic radiographs. If this all appears normal, then the temporary diagnosis would be idiopathic hypercalcemia and that could be contributing to the constipation. If it is persistent, despite a diet change, etc., I would consider starting a bisphosphonate (Alendronate). Use caution as this can cause esophageal strictures if dry piller, etc.







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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