

**DATE**

9/14/21

PRESENTING CLINICAL SIGNS

History: Patient presented for annual care. Lost 2 pounds in one year, hypercalcemia confirmed via ionized test, low PTH. No other changes on lab work. Owner recently moved and there has been fighting between her two cats, so owner has not noticed any obvious changes with behavior/appetite at home. No appreciable masses on PE. CXR pending, will be taken same day as AUS.

PATIENT

Liz Stillman

Current Medications: No current medications.

Lab Results: Ionized calcium 1.52 (rr: 1-1.4 mmol/L), PTH <0.5 (rr: 0.7-3.4 pmol/L), PTHrP 0 (rr:0-1.0 pmol/L). Radiographs: To be completed post-scan.

SPECIES

Feline

Date of Previous IntraPet Ultrasound: No previous IntraPet scans.

Sedation: Gabapentin administered prior to scan.

Stat Report: STAT report not requested by the veterinarian.

BREED

Domestic Shorthair

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**Urinary System**

The urinary bladder is moderately distended with 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.

SEX

Spayed Female

The left kidney is irregular in shape and normal in size (3.37 cm). Overall echogenicity is increased with poor corticomedullary distinction and a typical 1:3 cortex:medulla ratio. Capsular irregularities are most consistent with previous infarcts. There is no evidence of perinephric inflammation or effusion. There is no evidence of pyelectasia, nephroliths or hydroureter. Renal vasculature is normal.

AGE

2/11

WEIGHT

10.8 lbs

The right kidney has a normal shape and size (3.57 cm). Overall echogenicity is increased with poor corticomedullary distinction and a typical 1:3 cortex:medulla ratio. Capsular irregularities are most consistent with previous infarcts. There is no evidence of perinephric inflammation or effusion. A non-obstructive stone was noted and measured 0.33 cm. There is no evidence of pyelectasia or hydroureter. Renal vasculature is normal.

INTERPRETED BY

Kathleen Sennello
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Adrenal Glands

The region of left adrenal (Cranial to left renal artery) is unremarkable but the adrenal is not distinctly visualized. No evidence of a mass effect.

HOSPITAL NAME

Cat Hospital at Towson

The region of the right adrenal (between right cranial kidney and vena cava) is unremarkable, but the adrenal is not distinctly visualized. No evidence of a mass effect.

REFERRING VET

Dr. Fitzgerald

Spleen

The spleen is subjectively normal/borderline large in size and measured 1.1 cm. The 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

91810

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. No focal nodules or cystic lesions are observed. The gallbladder lumen is moderately distended. The wall of the gallbladder 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 <0.36cm 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 and the jejunum measured as normal (0.13 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:

- Decreased corticomedullary distinction in both kidneys with a right-sided, non-obstructive nephrolith. Mild loss of corticomedullary distinction in both kidneys could be consistent with chronic degenerative disease or interstitial nephrosis.
- Heterogenous liver. Hepatic changes are non-specific and could be consistent with inflammation/infection (cholangiohepatitis), infiltrative neoplasia, lipidosis or other hepatopathy.
- Borderline enlarged spleen. The parenchyma appears fairly normal, but it is generous in size, consider FNA.

SECONDARY FINDINGS:

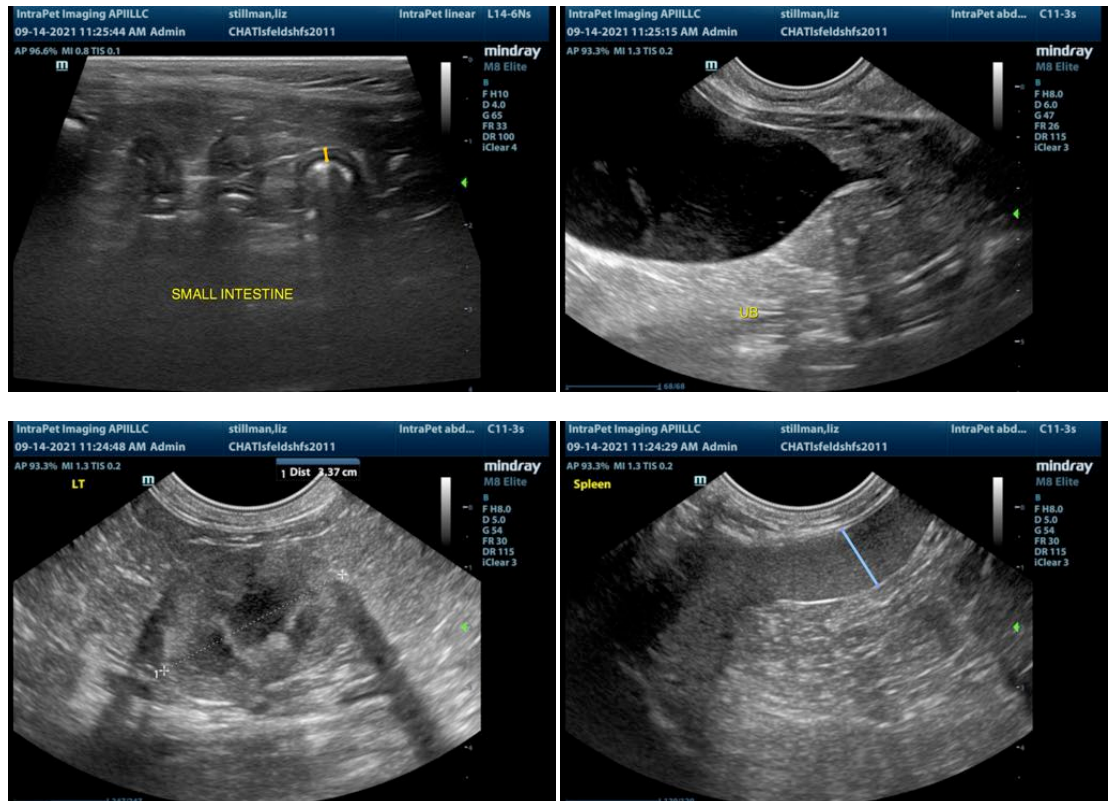
- Echogenic debris in the urinary bladder. The echogenic debris in the bladder lumen could be consistent with cells, crystals, and/or mucus. Recommend urinalysis and culture.
- Hypoechoic, mildly prominent pancreas. The pancreatic changes are most consistent with age-related parenchymal remodeling, potentially secondary to a prior inflammatory episode, early fibrosis or chronic pancreatitis.

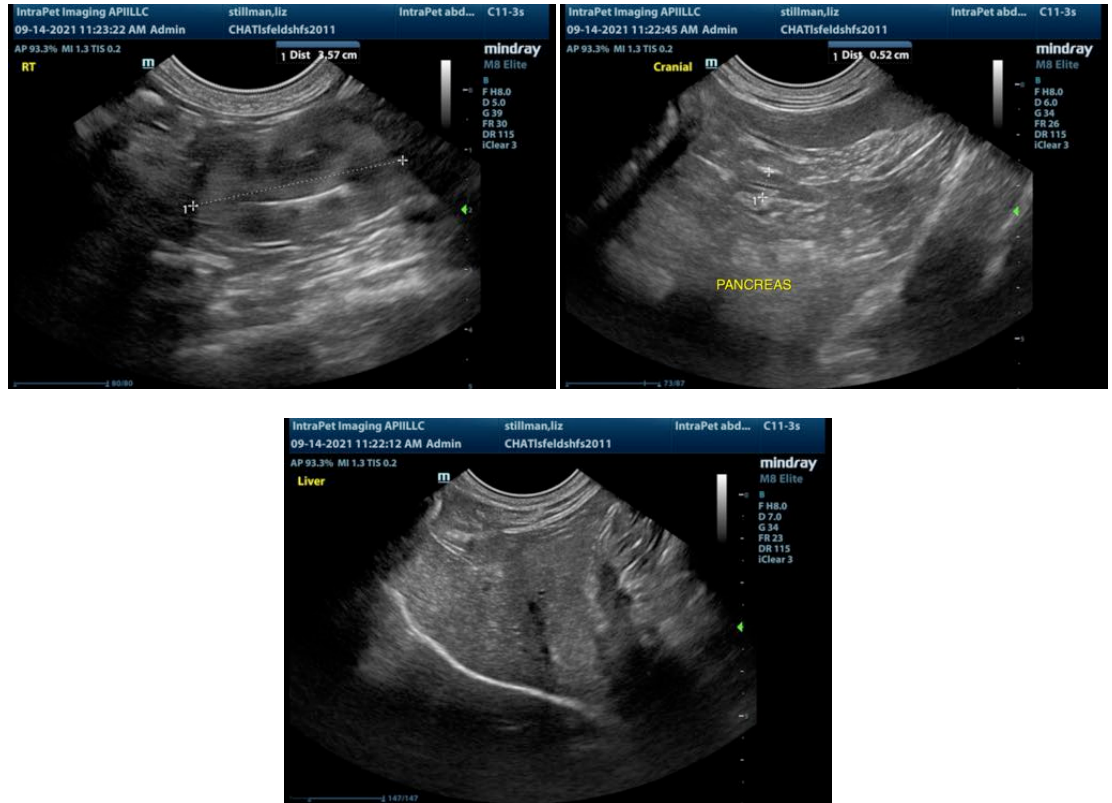
INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

An obvious cause of the hypercalcemia reported is not identified. The changes are non-specific and could be normal in an aged individual. Consider a FNA of the spleen. If the liver enzymes are elevated consider aspirate of the liver as well. You can consider a GI panel to further evaluate quantitative fPLI for pancreatitis, B12 and folate to look for underlying intestinal disease as a source for weight loss. I recommend an oral exam for any evidence of oral tumors that can cause hypercalcemia and three view thoracic radiographs to evaluate the thorax (pending per history)

If no cause of anemia is identified some people will recommend a bone marrow aspirate to look for any evidence of neoplastic cells. Alternately you can go with a tentative diagnosis of idiopathic hypercalcemia, but this is a slightly higher calcium then I would typically expect for this disease process. Close vigilance is warranted.

I recommend blood pressure evaluation and urinalysis and culture due to the renal changes observed.





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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