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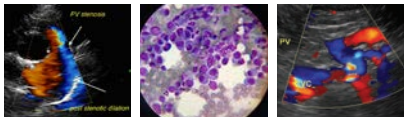

SonoPath
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DATE

8/25/21

PATIENT

Tucker Clark

SPECIES

Feline

BREED

DSH

SEX

Neutered Male

AGE

8/24/11

WEIGHT

11.2 Pounds

INTERPRETED BY

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

HOSPITAL NAME

Animal Emergency Hospital

REFERRING VET

Dr. Martinolli

INVOICE

24931

PRESENTING CLINICAL SIGNS

History: 8-24-2021 Notes: Indoor only cat. Recently has had PU/PD, lethargy, and decreased appetite (past few days). Went to rDVM earlier today. Severe azotemia: Calcium >16 (too high to read); x-rays sent w/him (film; NSF). Referred for IV fluids, possible AUS & addt'l BW (ionized Ca etc). **Assessment**: r/o primary renal disease or elevation in values secondary to hypercalcemia; hypercalcemia of malignancy;
Plan: Owner consented to estimate/plan: IV fluids, Malignancy hypercalcemia panel (PTH/Ionized Ca/PTHrP) to Idexx, BUN/Creatinine q 24 hr, AUS on 8/27, Discharge when he is eating, and kidney values have come down; will return for AUS.

Current Medications: Lasix, Gabapentin, Cerenia.
Lab Results: Azotemia, iCal >16 too high to read.
Radiographs: NSF.
Date of Previous IntraPet Ultrasound: No previous IntraPet scans.
Sedation: not needed
Stat Report: not requested

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.

The left kidney has a normal shape and size (4.23 cm). Overall echogenicity is slightly hyperechoic with poor 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.

The right kidney has an irregular shape and normal size (4.77 cm). Overall echogenicity is slightly hyperechoic with poor corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of perinephric inflammation or effusion. Mild pyelectasia noted at 0.17 cm. There is no evidence of nephroliths, infarcts or hydroureter. Renal vasculature is normal.

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.

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.

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.

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 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 <0.36cm 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 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. Duodenum wall measured 0.43 cm. Jejunum wall measured 0.36 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 normal and isoechoic to surrounding 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. There is a mild mesenteric lymphadenopaty present. Mesenteric lymph nodes are prominent, measuring 0.41, 0.44 cm. The Medial iliac nodes appear normal and there was no evidence of a caudal aortic thrombus at the bifurcation. The omentum is generally of normal echogenicity, but is hyperechoic in the area around the kidneys.

PRIMARY FINDINGS

- Decreased corticomedullary distinction in both kidneys with right-sided mild pyelectasia – Mild loss of corticomedullary distinction in both kidneys could be consistent with chronic degenerative disease or interstitial nephrosis. Pyelectasia of the right kidney could be consistent with pyelonephritis, chronic renal disease, secondary to PU/PD or fluid therapy (if applicable), other. The irregular shape of the right kidney is likely owing to previous infarcts.

- Thickened small intestine with prominent muscularis layer – The small intestinal wall changes are most consistent with an inflammatory process (i.e., inflammatory bowel disease) with a low possibility of emerging lymphoma.

- Mild mesenteric lymphadenopathy – The prominent abdominal lymph nodes are most consistent with reactive lymphadenitis or lymphoid hyperplasia. Neoplastic infiltration is considered less likely.

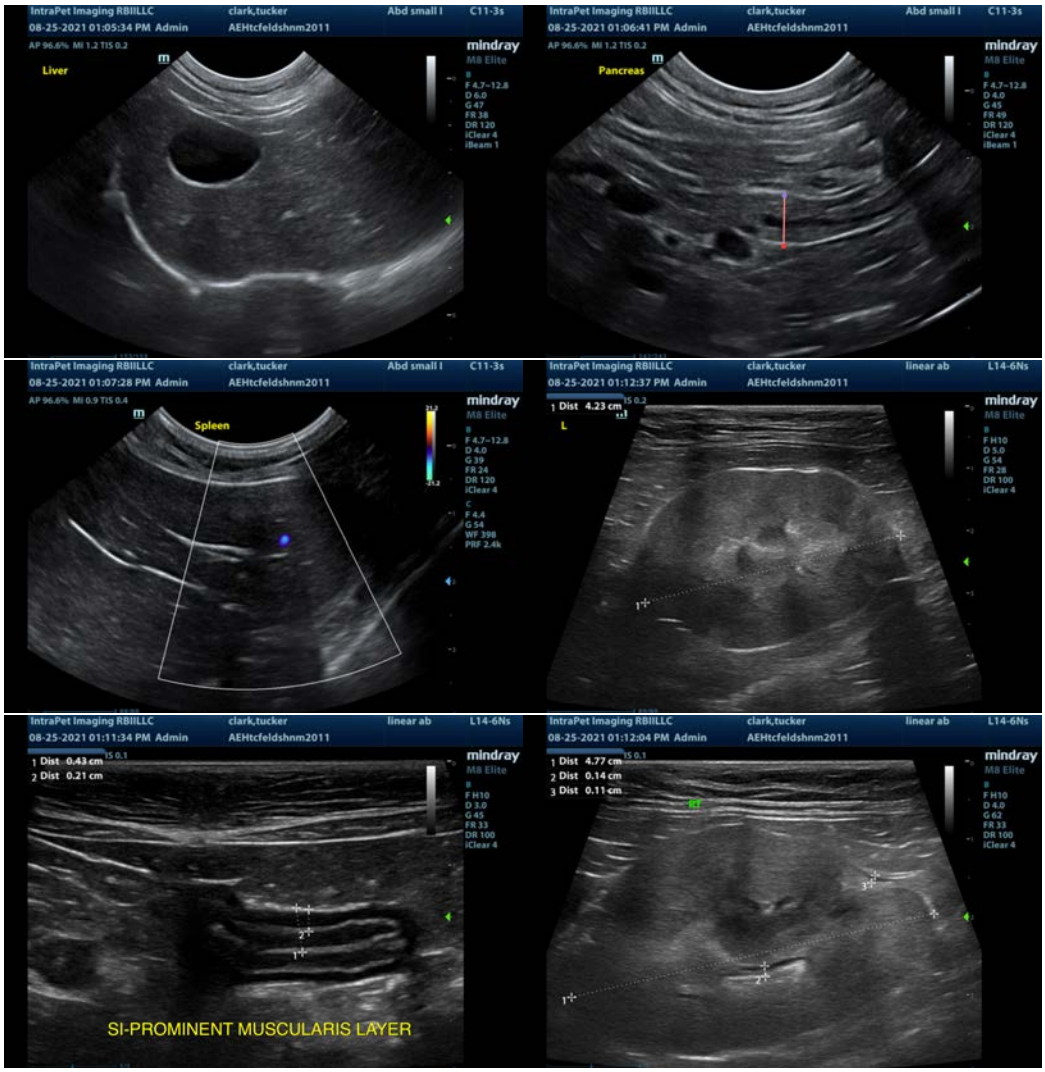
SECONDARY FINDINGS

- 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.

- Mildly heterogeneous liver – Hepatic changes are non-specific and could be consistent with inflammation/infection (cholangiohepatitis), infiltrative neoplasia, lipidosis or other hepatopathy.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The most common differentials for hypercalcemia in a cat tend to be idiopathic or secondary to renal disease This appears to be a very severe elevation in calcium. Recommend ionized calcium, PTH and PTHR level (pending per history), and consider additional screening for a possible neoplastic process with 3-view chest radiographs and a thorough oral exam. There is no definitive mass effecet seen on ultrasound, but there are prominent mesenteric lymph nodes, thickened bowel loops, and irregular appearing kidneys. If possible, a fine needle aspirate of a mesenteric lymph node may be helpful. Additionally, if blood pressure is normal and clotting times are normal, you could consider a fine needle aspirate of the kidney. Recommend urinalysis and culture to look for evidence of pyelonephritis, which could contribute to the inflammation surrounding the kidneys.



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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