IMAGING PERFORMED BY

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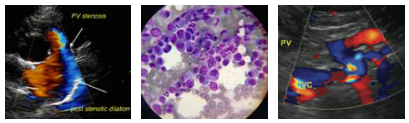

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DATE
2/9/22

PATIENT
Aayla Russell

SPECIES
Feline

BREED
Domestic Shorthair

SEX
Spayed Female

AGE
3/18/08

WEIGHT
6.19 lbs

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

HOSPITAL NAME
Eldersburg VH

REFERRING VET
Dr. James

INVOICE
95941

PRESENTING CLINICAL SIGNS

History: On going urinary issues, urinating out of box, tried gabapentin and added litter boxes as well. We discussed the suspicion of neoplasia vs congenital defect and recommended u/s and internal medicine consultation.
Lab Results: Ca 14.8 (oct bw: 12.6), lymphocytes 6.5 (oct bw:9.3), SDMA 20, Cre 4.0, BUN 49.
Date of Previous IntraPet Ultrasound: No previous IntraPet scans.
Sedation: Not required to complete full diagnostic ultrasound.
Stat Report: Not requested.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder is minimally distended with anechoic urine. There were no overt calculi or mass lesions were visualized, but evaluation of the bladder is greatly impaired by the lack of urine distension.

The left kidney has a normal shape and size (3.64 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. Non-obstructive nephroliths were noted. One measured 0.37 cm. There is no evidence of pyelectasia, infarcts or hydroureter. Renal vasculature is normal.

The right kidney has a normal shape and size (3.66 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. Pyelectasia was noted and measured 0.17 cm. There were non-obstructive nephroliths measuring 0.37 cm and 0.31 cm. There is no evidence of infarcts or hydroureter. Renal vasculature is normal.

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.

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 homogenous echotexture. 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 bile duct is visualized is moderately dilated and tortuous measuring 0.34 cm in diameter. There was no obstructive process visualized.

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 (between 0.13-0.38cm in wall thickness) and the jejunum measured as normal (between 0.15-0.36cm.) 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 bilateral, non-obstructive nephroliths and mild right-sided pyelectasia. Mild loss of corticomedullary distinction in both kidneys could be consistent with chronic degenerative disease or interstitial nephrosis. The hyperechoic mineralized foci observed at the corticomedullary junction of both kidneys are consistent with small, non-obstructive nephroliths. Pyelectasia of the right kidney could be consistent with pyelonephritis, chronic renal disease, secondary to PU/PD or fluid therapy (if applicable), other.

- Prominent, hypoechoic pancreas with a prominent pancreatic duct. The pancreatic changes are most consistent with mild pancreatitis or a recent episode of pancreatic inflammation.

- Minimal urinary bladder distension. No lesions are observed, but evaluation of the urinary bladder is impaired due to lack of urinary distension.

- Dilated tortuous bile duct. Dilation of the common bile duct could be consistent with a functional obstruction (i.e. primary hepatic disease resulting in hepatocellular swelling) or with an extrahepatic bile duct obstruction (ie. choledocholith, bile duct tumor, pancreatic disease, other).

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

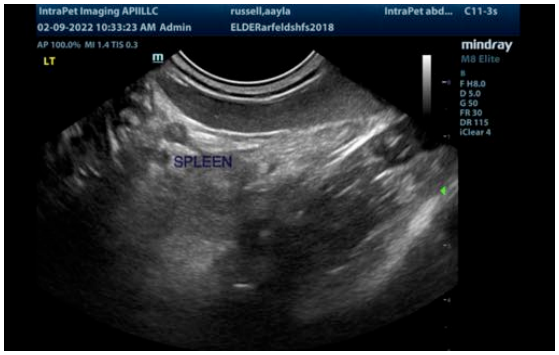
The kidneys appear abnormal with a lack of normal architecture and bilateral nephroliths. Urinary obstruction does not appear present. These findings could be consistent with congenital renal disease or previous renal injury. I recommend blood pressure evaluation, urinalysis and culture as well as diuresis if the patient is uremic in addition to symptomatic medial therapy.

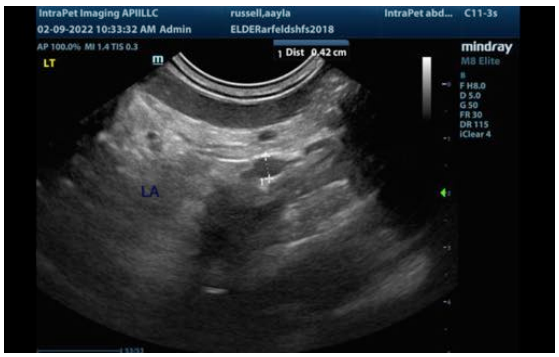
Recommend ionized calcium levels and PTH levels to further evaluate the hypercalcemia reported. This is likely secondary to renal disease, but with the nephroliths present there could be other issues going on.

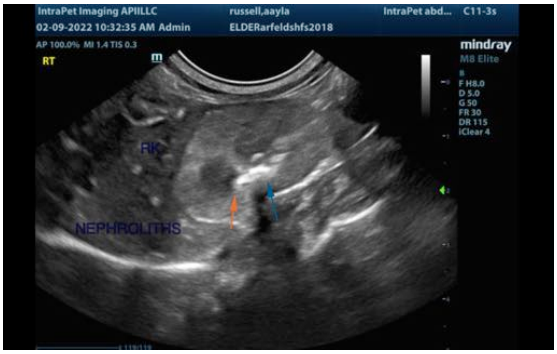
Consider screening for Addison's disease (very rare, but with hypercalcemia, azotemia and lack of a stress leukogram it is possible).

The pancreas is hypoechoic and prominent. This could be due to chronic current pancreatitis or it could be associated with previous episodes. Consider a GI panel to Texas A&M with a qualitative fPLI, TLI, cobalamin and folate to further evaluate the pancreas and small intestine.

Unfortunately a more distended bladder would be necessary for full evaluation of the urinary bladder. Consider urinalysis and culture to rule out cystitis/pyelonephritis. This patient has many reasons to be polyuric and polydipsic and there could be a behavioral component as well.







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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