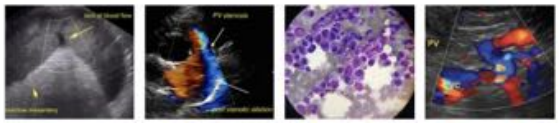


PATIENT

Lilly Mitchell

SPECIES

Canine

BREED

Carin Terrier

SEX

Female, spayed

AGE

11/17/2006

WEIGHT

18.9 lbs.

INTERPRETED BY

Andrea Nicastro, DVM, Diplomate ACVIM (*Small Animal Internal Medicine*)

IMAGING PERFORMED BY

Andrea Nicastro, DVM, Diplomate ACVIM (*Small Animal Internal Medicine*)

HOSPITAL NAME

Southside AH

REFERRING VET

Dr. Kevin Moser

INVOICE

14044

DATE

10/4/22

PRESENTING CLINICAL SIGNS

Lethargic/ADR. ALP 1576 ; ALT 390; Ca 12.1, BUN – 23, Cret – 1.5, SDMA – 23, K+ - 5.7

Meds: Denamarin, Ursodiol, Gabapentin, AlOH

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder wall is normal in thickness and the mucosal surface is smooth. The bladder lumen is mildly to moderately distended with anechoic urine. No masses, inflammatory changes or calculi are observed. Ureteral papillae and visualized portion of the proximal urethra, visible to a depth of 2 cm, are normal.

The left kidney is normal size (3.74 cm in length); normal shape and architecture with smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with mild to moderate loss of corticomedullary distinction. Hyperechoic shadowing diverticular foci are visualized. Mild pyelectasia is present (0.34 cm in the longitudinal plane). There is no evidence of, infarcts or hydroureter. Renal vasculature is normal.

The right kidney is normal size (3.97 cm in length); normal shape and architecture with smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with mild to moderate loss of corticomedullary distinction. Hyperechoic shadowing diverticular foci are visualized. Mild pyelectasia is present (0.24 cm in the longitudinal plane). There is no evidence of, infarcts or hydroureter. Renal vasculature is normal.

Adrenal Glands

The left adrenal gland is mildly enlarged (0.44 cm at cranial pole) (0.68 cm at caudal pole); normal shape; homogenous parenchyma. The glandular echogenicity and detail are unremarkable. Capsule, cortex, and medullary definition are normal. The phrenicoabdominal vein and surrounding vasculature are normal.

The right adrenal gland is borderline enlarged (0.73 cm at cranial pole) (0.61 cm at caudal pole) (1.77 cm in length); normal shape; homogenous parenchyma. The glandular echogenicity and detail are unremarkable. Capsule, cortex, and medullary definition are normal. The phrenicoabdominal vein and surrounding vasculature are normal.

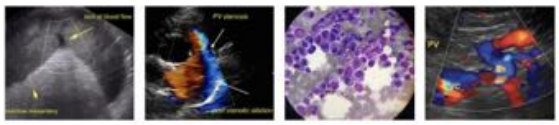
Spleen

The spleen is normal in size (1.05 cm in width at the level of the hilus) with a normal capsular contour. There is appropriate echogenicity and echotexture. Several, ill-defined hyperechoic areas/nodules are observed throughout the organ. Splenic vasculature is normal.

Liver

The liver is subjectively normal in size with normal contours and structure. There is appropriate echogenicity and echotexture. No overt structural evidence of inflammatory, infiltrative or regenerative pathology is evident. Vascular and biliary tracts are of normal volume with no evidence of congestion. No pathological hepatic lymphadenopathy observed. Previous cholecystectomy.

Gastrointestinal



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The stomach and intestine are free of stasis and exhibit normal peristaltic activity. The gastric lumen is not distended. The gastric wall and pylorus are normal in thickness with a normal layering pattern. The pyloric outflow tract is patent. The small intestinal lumen is not dilated. The small intestinal wall thickness is normal with a normal layering pattern and appropriate mural detail. Discreet masses are not identified. The colonic wall is normal. The colonic lumen contains shadowing fecal material. No obstructive disease is noted.

Pancreas

The base and right limb of the pancreas is visible with normal curvilinear peripheral contours. The parenchyma is mildly hypoechoic relative to surrounding omental fat and slightly mottled in appearance. The pancreatic duct is visible but not overtly dilated. There is no evidence of peripancreatic inflammation or effusion.

Free Abdomen

The peritoneal cavity is normal. There is no evidence of inflammation or effusion. The abdominal lymph nodes are normal/not visible.

Other

A brief echocardiogram reveals no evidence of pericardial effusion or obvious right atrial/auricular mass.

ULTRASONOGRAPHIC FINDINGS

Primary Findings:

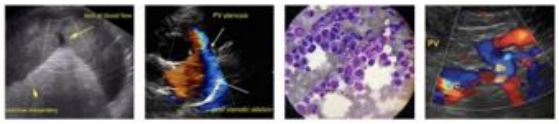
- Bilateral degenerative renal changes with dystrophic mineralization. The bilateral pyelectasia may be secondary to pyelonephritis, age-related remodeling or some combination thereof.
- Diffuse hepatopathy- differentials include regenerative nodular hyperplasia, vacuolar hepatopathy, inflammatory disease (i.e., chronic active hepatitis, bacterial cholangiohepatitis), hepatotoxicosis (i.e., copper), infiltrative neoplasia (less likely), fibrosis, other hepatopathy.

Secondary Findings:

- The pancreatic changes are most consistent with age-related parenchymal remodeling, potentially secondary to a prior inflammatory episode, early fibrosis or chronic pancreatitis.
- Borderline bilateral adrenomegaly. This may be a normal variant for this patient or may be secondary to early hyperplastic change.
- The hyperechoic splenic lesions trend toward the benign (i.e., myelolipomas) with a low possibility of emerging neoplasia.

*An obvious cause for the patient's hypercalcemia is not identified in this study. Considerations include occult neoplasia (i.e., anal gland adenocarcinoma, lymphoma, other), primary hyperparathyroidism, secondary to renal disease, other.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS



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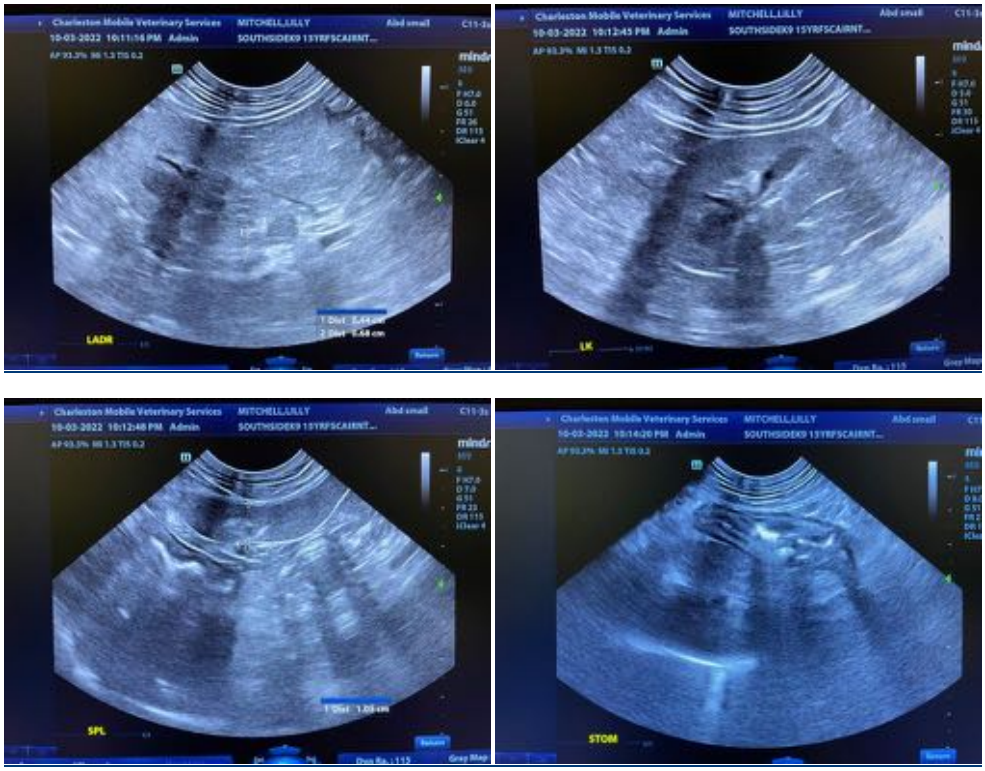
- Regarding the hypercalcemia, the following diagnostics are recommended:
    1. Rectal examination to assess for anal gland tumors, if not already performed.
    2. Three-view thoracic radiographs to assess for occult neoplasia in the chest.
    3. Ionized calcium +/- PTH/PTHRP.
    4. Regarding the azotemia, consider the following:
    5. Urine culture and sensitivity.
    6. UPC (if proteinuria is present in the absence of infection).
    7. Baseline blood pressure measurement.
    8. Transition to a prescription renal diet if the patient will tolerate it.
- Regarding the elevated liver enzymes, consider repeat hepatic tissue sampling (i.e., fine needle aspirate or surgical biopsy), particularly if the patient's liver enzymes have increased from previous values. Hepatic antioxidants should also be continued.



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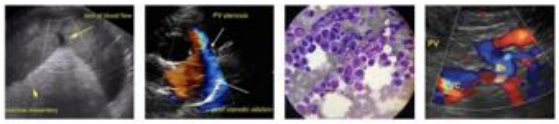

Charleston Mobile Veterinary Services
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CharlestonMobile.Net 800.403.5408

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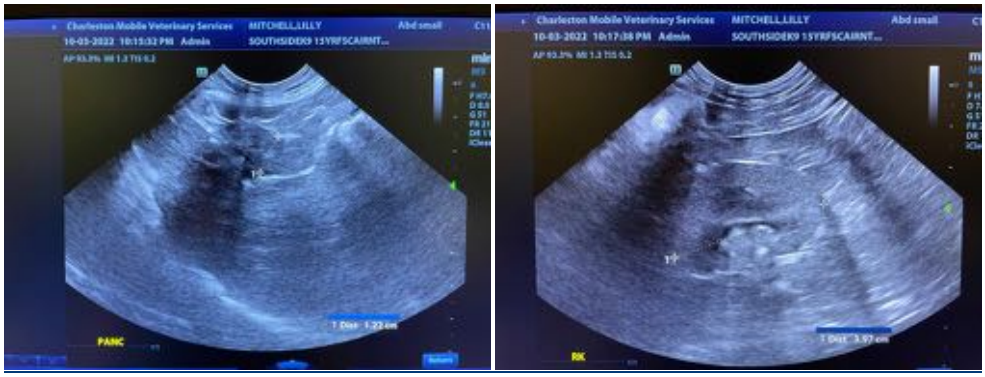

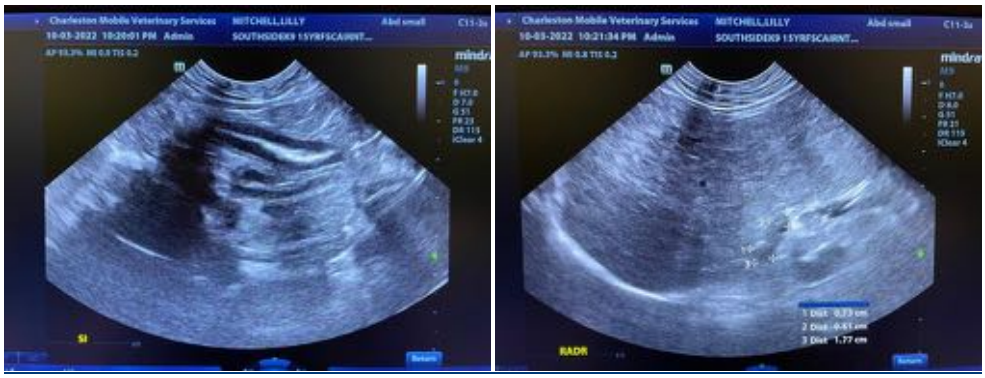

The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

Andrea Nicastro, MPH, DVM, Diplomate DACVIM (Small Animal Internal Medicine)
info@SonoPath.com