**DATE PRESENTING CLINICAL SIGNS**

12/16/21 History: Dental needed. Heart murmur noted since 3/26/19. Most recently grade 2/6 (March 9, 2021). Most recent bloodwork, 3/9/21 (to be rechecked today) CBC WNL. No PU/PD/V/D/C/S. Appetite is normal. Diet is RC Satiety support.

PATIENT

Cosmo Irby

SPECIES

Canine

BREED

Pomeranian Mixed Breed

SEX

Neutered Male

AGE

5/29/11

WEIGHT

21.5 Lbs.

INTERPRETED BY

Andrea Nicastro, DMV,
Diplomate DACVIM
(Small Animal
Internal Medicine)

IMAGING PERFORMED BY

Andi Parkinson RDMS

HOSPITAL NAME

Veterinary House Call
Services

REFERRING VET

Dr. Golden

INVOICE

13081

Current Medications: Monthly Sentinel and Simparica.

Lab Results: (3-9-21): ALP 3164, ALT 214, TRI 908 – not fasted. (3/27/19): ALP 1167, ALT 99, TRI 514. (3-23-2018): ALP 1600, ALT 114, TRI 253. Remainder of BW including T4 - 1.4 is unremarkable. Labs Attached separately.

Date of Previous IntraPet Ultrasound: 4-23-2018.

Sedation: Not required to complete full diagnostic ultrasound.

Stat Report: Not requested.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**Urinary System**

The urinary bladder is moderately distended. The wall is normal in thickness with a smooth mucosal surface. At least two tiny cystic calculi are observed within the lumen. In addition, a scant amount of echogenic debris is suspended within the lumen. The region of the trigone is normal.

The prostate is normal in size (0.87 cm in width) with a normal shape and smooth peripheral contours. The parenchyma is homogenous. No focal lesions are observed. An aggregation of mineralized debris (versus tiny urethrolith) is observed within the lumen. However, the lumen is not overtly dilated.

The left kidney presented normal size (5.14 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. Several nonobstructive nephroliths are visualized. There is no evidence of pyelectasia, infarcts or hydroureter.

The right kidney presented normal size (5.03 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. Pinpoint hyperechoic foci are observed with the cortex. Several nonobstructive nephroliths are visualized. There is no evidence of pyelectasia, infarcts or hydroureter.

Adrenal Glands

The left adrenal gland is upper limits of normal size (0.61 cm at cranial pole) (0.68 cm at caudal pole) (2.06 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.

The right adrenal gland is upper limits of normal size (0.64 cm at cranial pole) (0.63 cm at caudal pole) (2.03 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 with a normal capsular contour. There is appropriate echogenicity and

echotexture. No focal lesions are observed. Splenic vasculature is normal.

Liver

The liver is subjectively enlarged with swollen peripheral contours. The parenchyma is hyperechoic relative to the spleen and exhibits a finely heterogeneous pattern. A 0.79 cm ill-defined hypoechoic nodule is observed deep in the left side. At least one small intrahepatic biliary stone is visualized. Hepatic vasculature is of normal volume with no evidence of congestion.

The gall bladder lumen is distended. The wall is normal in thickness. An excessive amount of echogenic debris is observed within the lumen, some of which is partially dependent and some of which is stranding/suspended and adhered to the luminal wall. At least 2 small choleliths are observed within the lumen. The cystic and common bile ducts are normal/not overtly dilated.

Gastrointestinal

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 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. No obstructive or overt infiltrative disease is noted.

Pancreas

The region of the pancreas is isoechoic relative to surrounding omental fat. No obvious parenchymal abnormalities are observed. There is no evidence of regional 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.

ULTRASONOGRAPHIC FINDINGS

Primary Findings

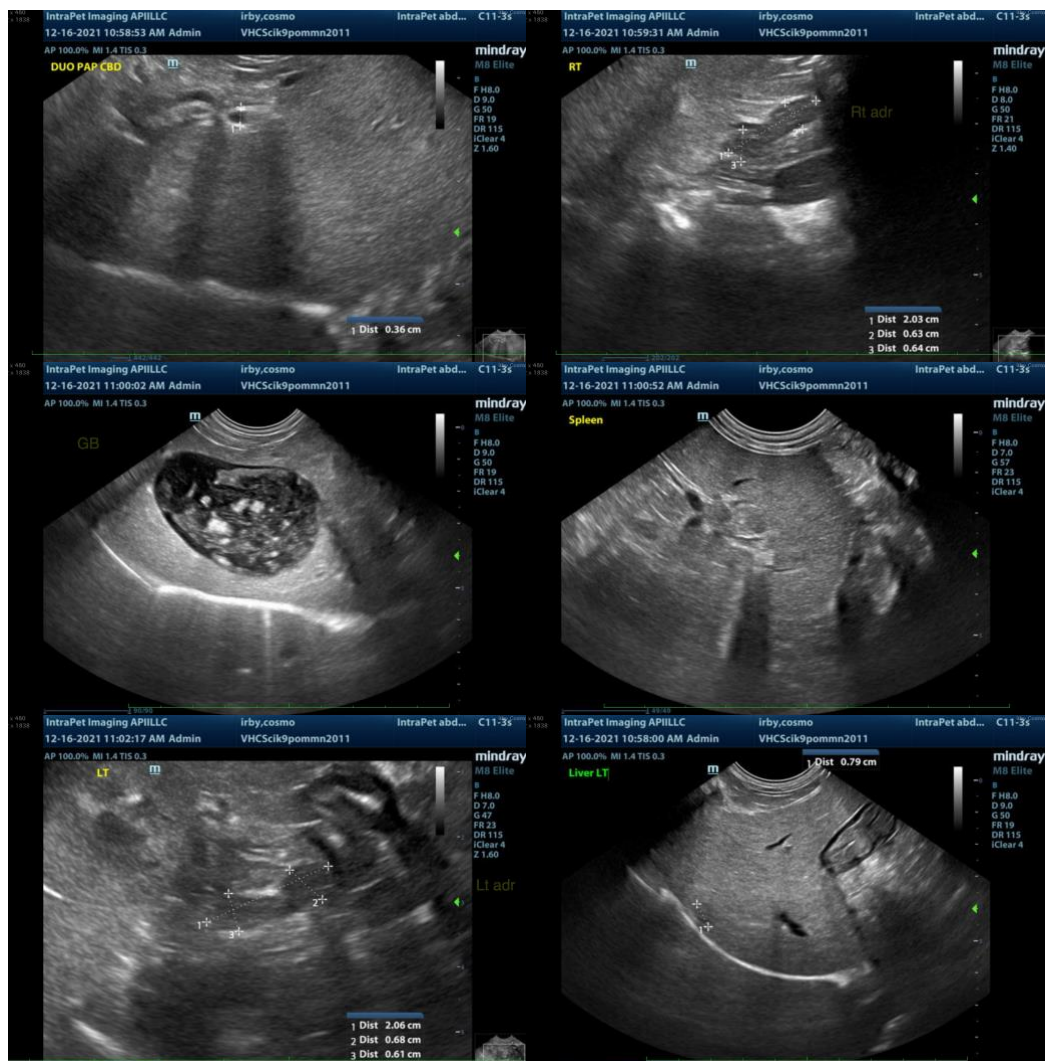
- The diffuse hepatic changes are non-specific and could be consistent with vacuolar hepatopathy, regenerative nodular hyperplasia, and/or age-related remodeling. Inflammatory and infiltrative disease are considered unlikely.
- Excessive gallbladder debris/sludge. Differentials include cholestasis versus early mucocele formation. The choleliths are likely an incidental finding, as they are non-obstructive.
- Tiny cystic calculi with mineralization/tiny calculus within the prostatic urethra

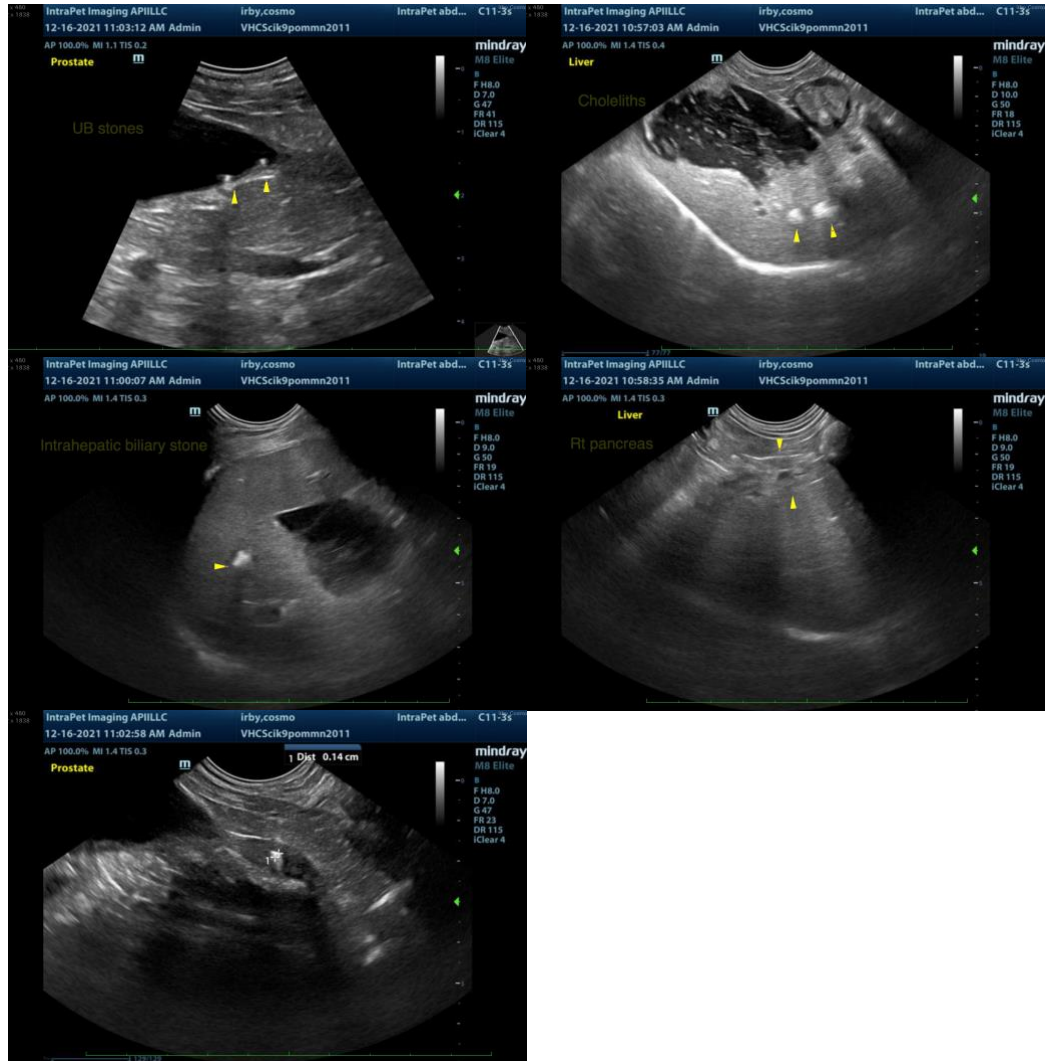
Secondary Findings

- Bilateral age-related renal changes with non-obstructive nephrolithiasis
- Borderline bilateral adrenomegaly

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

- Depending on the results of the most recently submitted blood work, hepatic tissue sampling may be warranted. However, if liver results are similar to those obtained in March, serial monitoring without invasive procedures would be recommended.
- Regarding the gallbladder changes, consider initiation of Ursodiol therapy. Alternatively, a repeat ultrasound can be performed in 2-3 weeks, preferable 2 hours post-small meal. If changes are similar to the current scan, Ursodiol can be initiated at that time.
- A cystotomy with stone removal, analysis and culture can be considered. Alternatively, medical dissolution of the stones can be considered with a prescription renal diet and broad-spectrum antibiotic therapy. If there is no improvement in stone size after 4 weeks of therapy, a cystotomy should be reconsidered. If the stone size is reduced, continue therapy until complete dissolution has been achieved.





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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