

**PATIENT**

Graffiti Baker

**SPECIES**

Canine

**BREED**

Chihuahua Mix

**SEX**

Neutered Male

**AGE**

1/6/2011

**WEIGHT**

8.9 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**

Sun Dog Cat Moon

**REFERRING VET**

RDVM Kim Wilson

**INVOICE**

10354

**DATE**

2/15/22

**PRESENTING CLINICAL SIGNS**

History: heart murmur III/VI NSF, SSP  
L forelimb angular varis deformity  
Hx of chronic UTI (appears to be resolved)  
IVDD (patient's bladder has to be expressed)  
Concerns with elevated liver enzymes and trending higher  
ABNORMAL Labwork Values: 11/3/21 ALT 119, ALP 483  
2/3/22 ALT 135, ALP 696, T4 0.7  
Is there a Heart Murmur? If so, please grade. III/VI  
Current Medications Pimobendan, Denamarin, CBD, Welactin fish oil, Cranidini

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

**Urinary System**

The urinary bladder, trigone, and pelvic urethra are normal in thickness and the mucosal surface is smooth. The bladder is distended. A small to moderate amount of aggregated echogenic suspended debris is observed within the lumen. 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 prostate is normal in size (0.98 cm in width) and shape. Parenchyma is homogenous. The prostatic urethra appears normal without evidence of dilation or obstruction

The left kidney is normal in size (4.08 cm in length) with a normal shape, smooth peripheral margins, and normal internal architecture. There is mild loss of corticomedullary distinction. Several hyperechoic shadowing diverticular foci are observed. There is no evidence of pyelectasia, infarcts or hydronephrosis. Renal vasculature is normal.

The right kidney is normal in size (4.32 cm in length) with a normal shape, smooth peripheral margins, and normal internal architecture. There is mild loss of corticomedullary distinction. Several hyperechoic shadowing diverticular foci are observed. Several nonobstructive nephroliths are visualized. There is no evidence of pyelectasia or hydroureter. Renal vasculature is normal.

**Adrenal Glands**

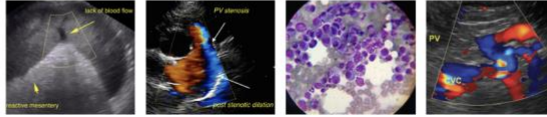
The left adrenal gland is borderline enlarged (0.43 cm at cranial pole) (0.63 cm at caudal pole) (1.63 cm in length); with a slightly irregular shape; homogenous parenchyma. The glandular echogenicity and detail are unremarkable. Capsule, cortex, and medullary definition are normal. The phrenicoabdominal vein and surrounding vasculature are normal.

The right adrenal gland is normal size (0.93 cm at cranial pole) (0.49 cm at caudal pole) (1.73 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 subjectively normal in size (0.80 cm in width at the level of the hilus) with a slightly irregular medial contour. A 1.07 x 0.47 cm cystic heterogenous nodule is observed at the medial aspect, near the hilus. The lesion causes slight capsular expansion. The remaining parenchyma is homogenous. Splenic vasculature appears normal with no evidence of thrombosis.

**Liver**



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The liver is subjectively prominent in size with swollen curvilinear peripheral contours. The parenchyma is isoechoic relative to the spleen and exhibits mild heterogeneity. No distinct focal lesions are observed. Hepatic vasculature and biliary tracts are of normal volume with no evidence of congestion. The portal vein to caudal vena cava ratio is approximately 1: 1.

The gall bladder lumen is moderately distended. The wall is thin and smooth. A moderate amount of aggregated echogenic, mostly gravity dependent sludge is observed within the lumen. Luminal contents are anechoic. The cystic and common bile ducts are normal.

**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 right limb of the pancreas is visible with normal curvilinear peripheral contours. The parenchyma is largely isoechoic 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.

**ULTRASONOGRAPHIC FINDINGS**

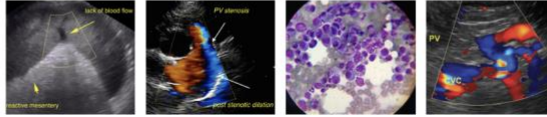
**Primary Findings**

- 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 less likely.
- Gall-bladder sludge, non-mucocele
- The cystic splenic nodule can be consistent with a benign process. Alternatively, emerging neoplasia (i.e., hemangioma, hemangiosarcoma), is possible.

**Secondary Findings**

- Borderline left adrenomegaly
- Bilateral age-related renal changes with dystrophic mineralization and right nonobstructive nephrolithiasis
- Age-related pancreatic remodeling
- Urinary bladder debris

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**



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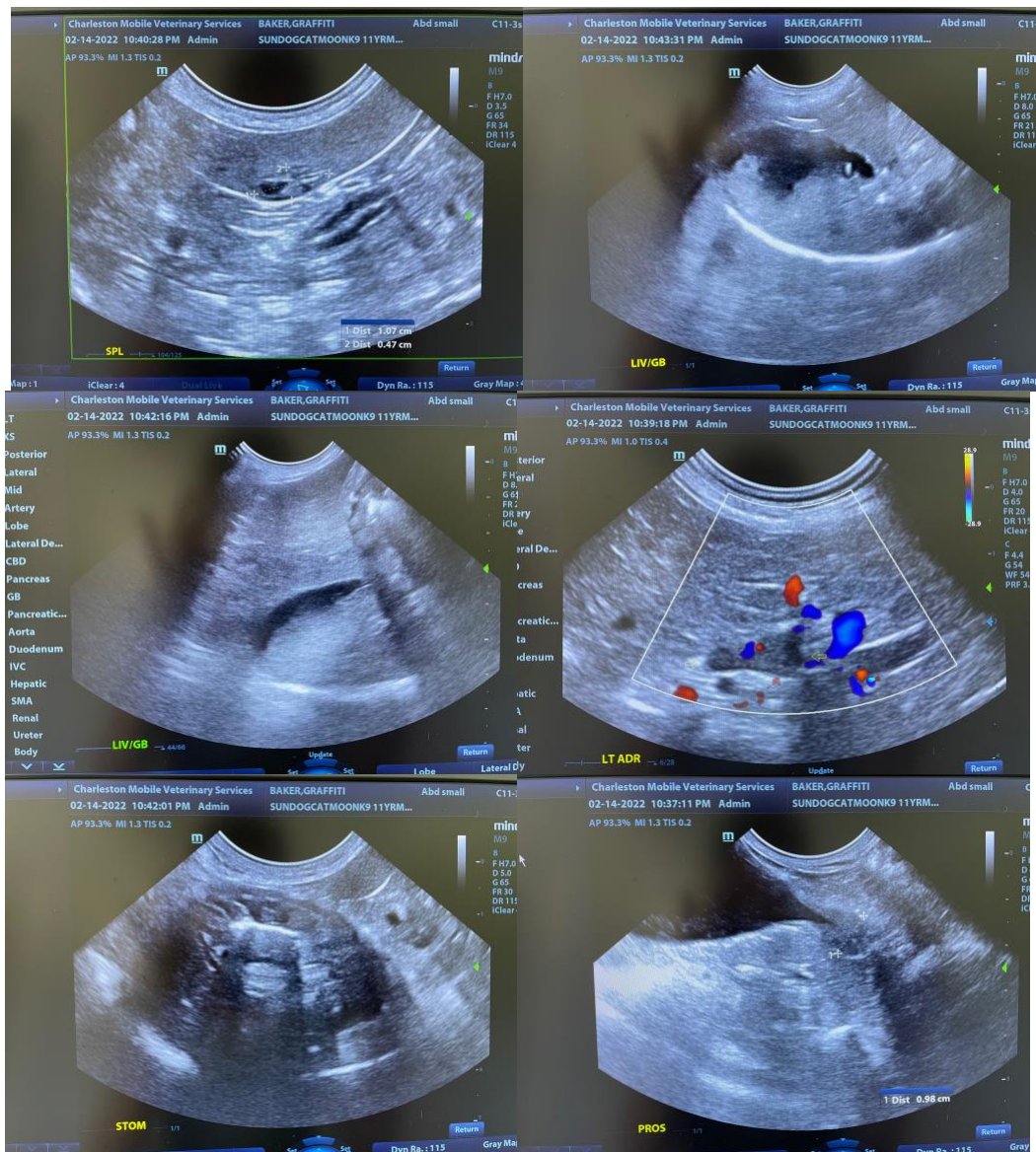
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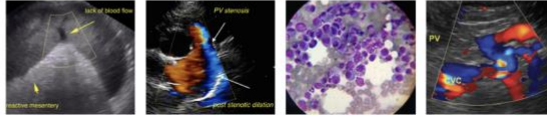
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- Serial monitoring (i.e., every 3-4 months), of the patient's liver values is recommended. If values continue to increase, repeat abdominal ultrasound +/- hepatic tissue sampling may be warranted.
- Consider testing for hyperadrenocorticism with a low-dose dexamethasone suppression test or ACTH stimulation test if clinical signs (i.e., PU/PD) develop in the future.
- Regarding the splenic nodule, if an aggressive approach is desired, a splenectomy with submission of the spleen for histopathology can be considered. Otherwise, a repeat ultrasound is recommended in 4 weeks to assess for progression.
- Regarding the gall bladder sludge, consider initiation of Ursodiol therapy. Alternatively, if the gall bladder sludge is still present at the ultrasound recheck, Ursodiol therapy can be considered at that time.





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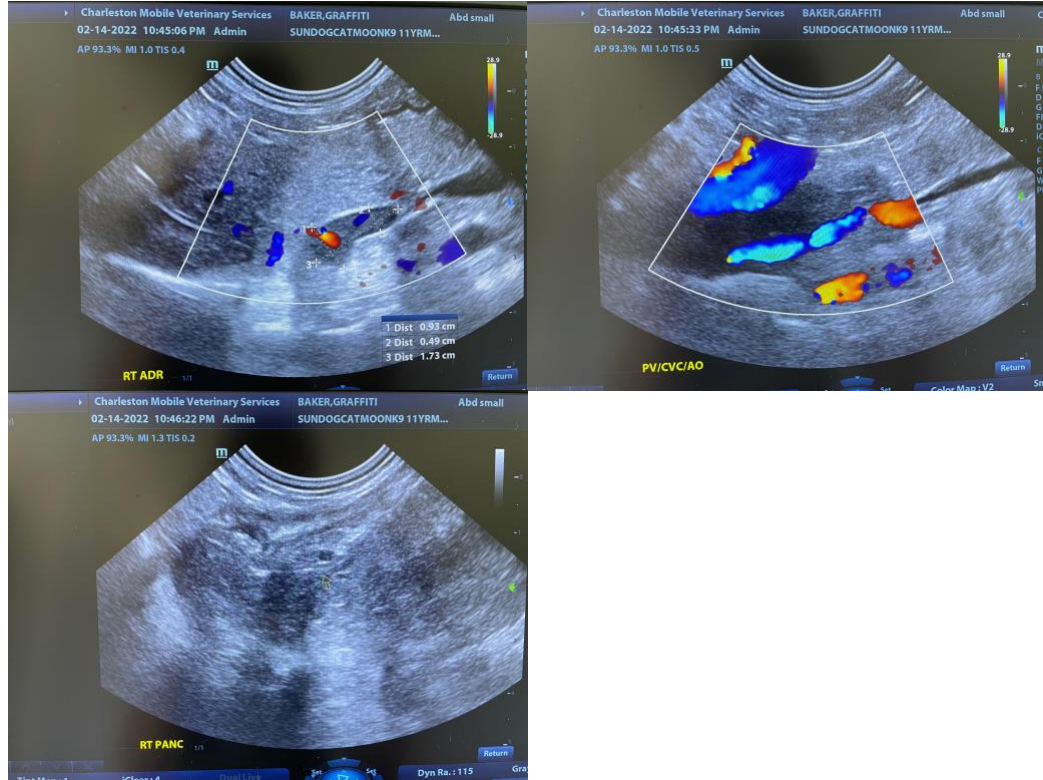
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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, DVM, Diplomate DACVIM (Small Animal Internal Medicine)**  
info@SonoPath.com