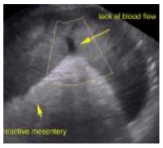
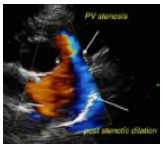
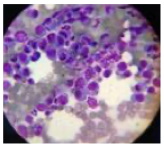
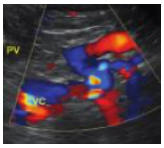





SonoPath.com
1-800-838-4268 info@sonopath.com

**PATIENT**

Terri Cackowski

**SPECIES**

Canine

**BREED**

Schnauzer

**SEX**

Intact Male

**AGE**

10 years

**WEIGHT**

26 lbs

**INTERPRETED BY**

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

**IMAGING PERFORMED BY**

Dr. Sheldon

**HOSPITAL NAME**

Advanced PetCare of Oakland

**REFERRING VET**

Dr. Sheldon

**INVOICE**

12031

**DATE**

1.12.23

## PRESENTING CLINICAL SIGNS

History: Presenting Clinical Signs: Hyperpigmentation, alopecia, distended abdomen/hunched appearance. Cried out when abdomen was lightly touched yesterday, Arching his back, very slow stiff gait. Very painful, unable to get comfortable. No stranguria, normal stream. Problem list: Hyperlipidemia (on gemfibrozil), prostatic hypertrophy, IVDD-4/19/22(treated with conservative therapy), mass effect in bladder(noted 4/19/22) Bloodwork: elevated globulin 5.3, ALP 1117, Cholesterol 376, triglycerides 2150
Abnormal PE/Chem/CBC/UA Results:

## ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

### *Urinary System*

The urinary bladder is moderately distended. At the dorsal aspect, an irregular echogenic structure (2. 19 x 1.01 cm) is visualized. In the remainder of the urinary bladder, the wall is normal in thickness with a normal layering pattern. No cystic calculi are observed. The region of the trigone and visible portion of the proximal urethra are normal.

The prostate is enlarged (3.45 cm in width) with a slightly irregular shape. The parenchyma is hyperechoic relative to surrounding omental fat and slightly heterogenous in appearance. No focal lesions are observed. The prostatic urethra is not overtly dilated.

The left kidney is normal in size (5.39 cm in length) with a normal shape, smooth peripheral margins, and normal internal architecture. There is mild to moderate 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 (5.32 cm in length) with a normal shape, smooth peripheral margins, and normal internal architecture. There is mild to moderate loss of corticomedullary distinction. Several hyperechoic shadowing diverticular foci are observed. There is no evidence of pyelectasia, infarcts or hydronephrosis. Renal vasculature is normal.

### *Adrenal Glands*

The left adrenal gland is normal in size (0.53 cm at cranial pole) (0.51 cm at caudal pole) with a normal shape and 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 in normal size (0.49 cm at cranial pole) (0.43 cm at caudal pole) with a normal shape and 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 (0.85 cm in width at the level of the hilus) with a normal capsular contour. There is appropriate echogenicity and echotexture. Numerous pinpoint hyperechoic to mineralized foci are observed throughout the organ. Splenic vasculature is normal.

### *Liver*

The liver is subjectively enlarged with slightly swollen peripheral contours. The parenchyma is hyperechoic relative to the spleen and diffusely homogeneous in appearance. No distinct focal lesions are observed. Vascular and biliary tracts are of normal volume with no evidence of congestion.

The gall bladder is distended. The wall is normal in thickness. A large amount of suspended, echogenic sludge, in a partially stellate pattern is observed within the lumen. The cystic and common bile ducts are normal/not seen.

***Gastrointestinal***

The lumen is not distended. The gastric wall is normal in thickness with a normal layering pattern. The small intestinal lumen is segmentally dilated with chyme (mild). 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. There is no evidence of an obstructive pattern.

***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. A 1.10 x 0.52 cm medial iliac lymph node is visualized. Then node is normal in shape and echogenicity.

## ULTRASONOGRAPHIC FINDINGS

### Primary Findings

- The gall bladder changes are consistent with an emerging mucocele.
- The hepatic parenchymal changes are most consistent with vacuolar hepatopathy (i.e., endocrine or idiopathic). Inflammatory disease is considered less likely in light of the normal ALT. Infiltrative neoplasia (i.e., lymphoma) is possible but considered less likely in this patient.
- The echogenic structure in the dorsal urinary bladder could be consistent with an aggregation of adhered cellular debris or a mass effect.

### Secondary Findings

- Splenic dystrophic mineralization. This is often seen as a benign incidental finding in patients with endocrinopathies.
- The prostate changes are most consistent with benign prostatic hyperplasia. Bacterial prostatitis is also possible, particularly if the patient is exhibiting clinical signs associated with this disease process.
- Bilateral chronic age-related renal changes with dystrophic mineralization

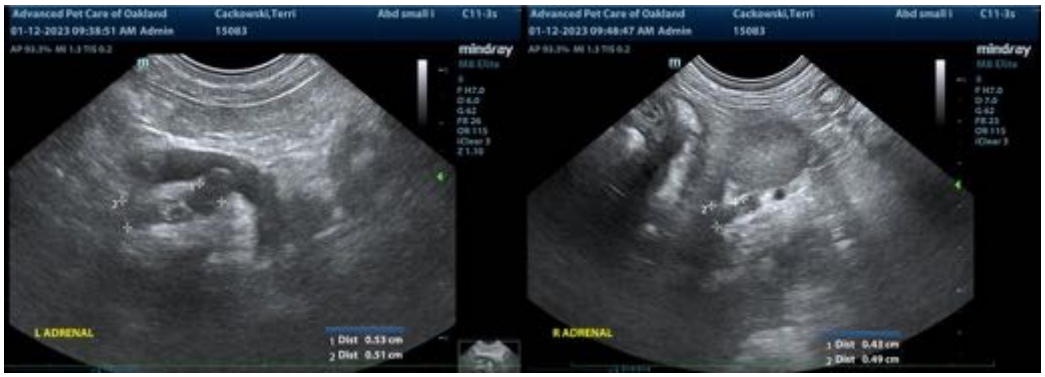
  *It is unclear whether the gall bladder, prostatic or urinary bladder changes are responsible for the patient's clinical signs, or if a separate, concurrent issue (i.e., orthopedic or neurologic disease) is present.

## INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

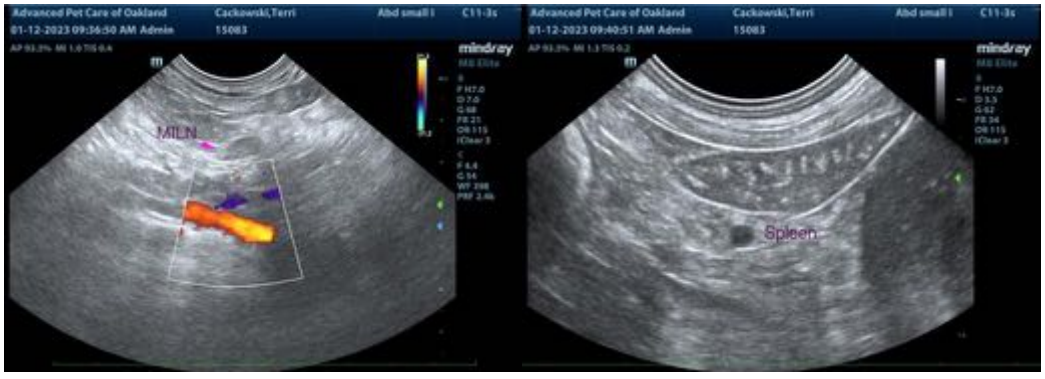
- Regarding the gall bladder changes, Ursodiol therapy is recommended. Serial sonographic monitoring (i.e., every 4-6 weeks) is recommended to assess for progression to a fully formed mucocele. Also consider empirical treatment for cholecystitis, particularly if the ALP has increased substantially in recent weeks.

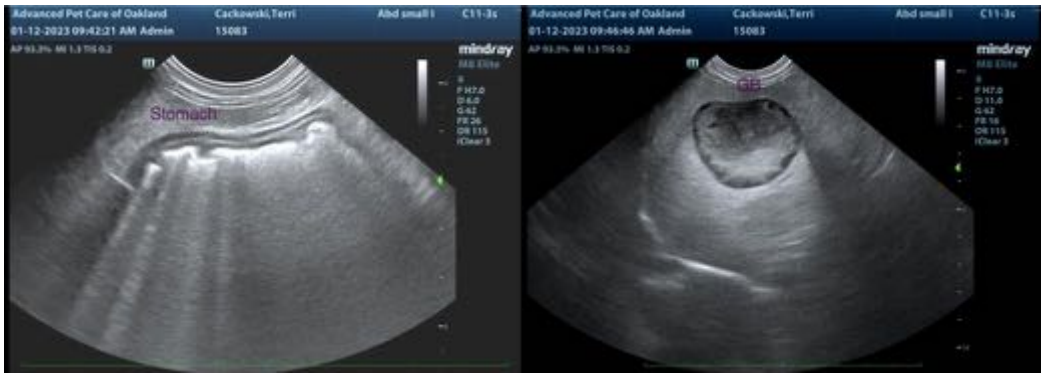
- Regarding the echogenic structure in the urinary bladder, consider a urine BRAF test to further evaluate for lower urinary tract neoplasia. A urine culture and sensitivity is also recommended, preferably on a catheterized sample (to avoid potential seeding of the abdomen with neoplastic cells).

- Orthopedic and neurologic examinations +/- spinal/pelvic radiographs are recommended,. Also consider consultation with a board-certified surgeon if metabolic causes of pain are ruled out.











**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