

**PATIENT**

Cocoa Parent

**SPECIES**

Canine

**BREED**

Sheltie

**SEX**

Neutered Male

**AGE**

10 years

**WEIGHT**

34.5 lbs

**INTERPRETED BY**

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

**IMAGING  
PERFORMED BY**

Pamela Harrigan, RDMS

**HOSPITAL NAME**

Wood River AH

**REFERRING VET**

Casey Schuelke, DVM

**INVOICE**

11699

**DATE**

9.23.22

**PRESENTING CLINICAL SIGNS**

History: Chronically elevated cholesterol and triglycerides. PU/PD started a couple weeks ago. Cholesterol 770, Triglyceride 208 (Fasted), tried colestipol but no improvement. Also, on RCVD GI low fat diet, no improvement. ALP 276. Current meds: Colestipol 5g -1/2 pack mixed with 1/4 cup water in food twice daily.

**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 lumen is 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 1-2 cm, are normal.

The prostate is normal in size (0.83 cm in width) and shape. Parenchyma is homogenous. The prostatic urethra appears normal without evidence of dilation or obstruction.

The left kidney presented normal size (5.26 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. A 0.53 cm cortical cyst is observed at the lateral aspect. There is no evidence of pyelectasia, nephroliths, infarcts or hydronephrosis.

The right kidney presented normal size (5.43 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. There is no evidence of pyelectasia, nephroliths, infarcts or hydronephrosis.

**Adrenal Glands**

The left adrenal gland is normal size (0.72 cm at cranial pole) (0.67 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 normal size (0.56 cm at cranial pole) (0.48 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.

**Spleen**

The spleen is normal in size (2.17 cm in width at the level of the hilus) with a normal capsular contour. There is appropriate echogenicity and echotexture. No focal lesions are observed. Splenic vasculature is normal.

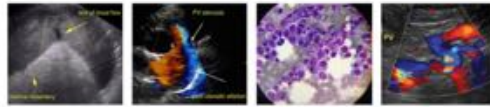
**Liver**

The liver is subjectively prominent in size with normal curvilinear peripheral contours. The parenchyma is isoechoic relative to the spleen and homogenous in appearance. No focal lesions are observed. Hepatic vasculature and intrahepatic biliary tracts are of normal volume with no evidence of congestion.

The gall bladder lumen is moderately distended. The wall is thin and smooth. A moderate amount of aggregated, echogenic, partially dependent to suspended debris/sludge is observed within the lumen. The cystic and common bile ducts are normal.

**Gastrointestinal**

The gastric lumen is not distended. The gastric wall is normal in thickness with a normal layering pattern. The small intestinal lumen is not dilated. The gastric wall and pylorus are normal in thickness.



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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 of the descending colon contains shadowing fecal material. There is no evidence of an obstructive pattern.

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**Pancreas**

The right limb of the pancreas is normal in size 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.

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**Free Abdomen**

There is no evidence of free fluid. One to two prominent medial lymph nodes are visualized, the largest measuring 0.61 cm in length. The nodes are normal in shape and echogenicity.

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**ULTRASONOGRAPHIC FINDINGS**

**Primary Findings**

- The gall bladder changes could be consistent with a developing mucocele, cholestasis or fasting.
- Suspected benign diffuse hepatopathy. Vacuolar hepatopathy is the top differential.

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**Secondary Findings**

- Minor age-related pancreatic remodeling
- Bilateral degenerative renal changes with a left cortical cyst

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\*An obvious cause for the patient's hypertriglyceridemia and hypercholesterolemia is not identified in this study.

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

Given the history of PU/PD, consider the following:

1. Urinalysis if not already performed
2. Urine culture and sensitivity
3. Cushing's testing (i.e., low-dose dexamethasone suppression test or ACTH stimulation test)

If the above diagnostics are inconclusive, further work-up could include the following:

1. Leptospirosis testing
4. DDAVP trial
5. Modified water deprivation test

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Regarding the hypertriglyceridemia, consider initiation of omega 3 fatty acids. Further medical treatment should be initiated when the triglyceride level goes above 500 mg/dl.

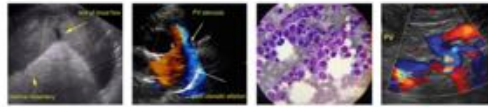
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Given the gall bladder changes, Ursodeoxycholic acid (Ursodiol) at 10-15 mg/kg once a day is recommended. Serial sonographic monitoring (e.g., every 6-8 weeks) of the gall bladder is recommended to assess for progression to a fully-formed mucocele.

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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