

**PATIENT**

Cannoli Lindberg

**SPECIES**

Canine

**BREED**

Pomeranian Mix

**SEX**

Male, neutered

**AGE**

11 yrs.

**WEIGHT**

11.9 lbs.

**INTERPRETED BY**

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

**IMAGING PERFORMED BY**

Jenna Walsh

**HOSPITAL NAME**

West Hills AH

**REFERRING VET**

Dr. Remcho

**DATE**

10/19/21

**INVOICE**

12.91

**PRESENTING CLINICAL SIGNS**

History: Recent hx of diarrhea, lethargy, change in behavior \*Comparative study today to 12/10/20  
AUS Temaril P (1) q 24 hours (for chronic bronchitis) Denamarin daily, Ursodiol 250 mg (1/4) q 24 hours  
Abnormal PE/Chem/CBC/UA Results: WBC 20,700, Neutrophils 14,460, PLT 976,000, ALKPHOS 1521, cPL "abnormal"

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

*Urinary System*

The urinary bladder and visible portion of the pelvic urethra are normal for the degree of luminal distension. The urine is anechoic with no evidence of debris. Cystic calculi and discrete masses are not observed. The region of the trigone and the visible portion of the proximal urethra are normal.

The prostate is normal in size (0.47 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 (3.58 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 size (4.01 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. A few small nephroliths are visualized. There is no evidence of pyelectasia, infarcts or hydroureter. Renal vasculature is normal.

*Adrenal Glands*

The left adrenal gland is normal size 0.48 cm at cranial pole) (0.51 cm at caudal pole) (1.93 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 normal size (0.93 cm at cranial pole) (0.52 cm at caudal pole) (1.31 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 (0.75 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 slightly swollen peripheral contours. The parenchyma is isoechoic relative to the spleen and subtly heterogeneous in appearance. No distinct focal lesions are observed. Vascular and biliary tracts are of normal volume with no evidence of congestion. The gall bladder lumen is distended. The wall is normal in thickness. A large amount of aggregated echogenic



**PATIENT**

Cannoli Lindberg

suspended sludge in a partially stellate pattern is observed. The cystic and common bile ducts are normal/not seen.

***Gastrointestinal***

**SPECIES**

Canine

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. No obstructive disease is noted.

**BREED**

Pomeranian Mix

***Pancreas***

The right limb of the pancreas is prominent with slightly irregular peripheral contours. The parenchyma is hyperechoic relative to surrounding omental fat and mottled in appearance. A 0.67 cm irregular hypoechoic nodule is observed. The pancreatic duct is not overtly dilated.

**SEX**

Male, neutered

***Free Abdomen***

**AGE**

11 yrs.

There is no evidence of free fluid. The abdominal lymph nodes are normal/not visible.

**ULTRASONOGRAPHIC FINDINGS**

**WEIGHT**

11.9 lbs.

**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.
- Gallbladder changes consistent with early mucocele formation.

**Secondary Findings:**

- Bilateral age-related renal changes with dystrophic mineralization and right non-obstructive nephrolithiasis.
- The pancreatic changes are most consistent with age-related parenchymal remodeling, potentially secondary to a prior inflammatory episode, early fibrosis or chronic pancreatitis.

\*Overall, the findings are similar to the sonogram performed in December of 2020. An obvious cause for the recent clinical signs is not identified in this study.

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

**INTERPRETED BY**

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

**IMAGING PERFORMED BY**

Jenna Walsh

**HOSPITAL NAME**

West Hills AH

**REFERRING VET**

Dr. Remcho

**DATE**

10/19/21

**INVOICE**

12.91

- Given the change in behavior, a neurologic examination is recommended.
- Given the gallbladder changes, consider empirical treatment for cholecystitis (i.e., Amoxicillin clavulanic acid), which is a common sequelae of emerging gallbladder mucoceles. Continued sonographic monitoring (i.e., every 3 months) of the gallbladder is recommended to assess for progression to a fully-formed mucocele.



**PATIENT**

Cannoli Lindberg

**SPECIES**

Canine

**BREED**

Pomeranian Mix

**SEX**

Male, neutered

**AGE**

11 yrs.

**WEIGHT**

11.9 lbs.

**INTERPRETED BY**

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

**IMAGING PERFORMED BY**

Jenna Walsh

**HOSPITAL NAME**

West Hills AH

**REFERRING VET**

Dr. Remcho

**DATE**

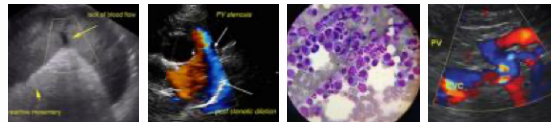
10/19/21

**INVOICE**

12.91

- With regard to the diarrhea, consider the following diagnostics/therapeutics:
  1. A fecal evaluation for ova/Giardia
  2. Prophylactic deworming with Fenbendazole at 50 mg/kg once a day for 5 days is recommended. Repeat above protocol in 3 weeks.
  3. GI panel including serum cobalamin, folate, TLI and PLI.
  4. +/- a hypoallergenic diet trial.
  5. +/- endoscopic or surgical gastrointestinal biopsies
- Given the patient's age, three-view thoracic radiographs are recommended to assess cardiopulmonary status.





**PATIENT**

Cannoli Lindberg

**SPECIES**

Canine

**BREED**

Pomeranian Mix

**SEX**

Male, neutered

**AGE**

11 yrs.

**WEIGHT**

11.9 lbs.

**INTERPRETED BY**

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

**IMAGING PERFORMED BY**

Jenna Walsh

**HOSPITAL NAME**

West Hills AH

**REFERRING VET**

Dr. Remcho

**DATE**

10/19/21

**INVOICE**

12.91

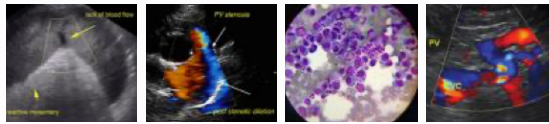


The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

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

[andrea.nicastro@sonopath.com](mailto:andrea.nicastro@sonopath.com)



**PATIENT**

Cannoli Lindberg

**SPECIES**

Canine

**BREED**

Pomeranian Mix

**SEX**

Male, neutered

**AGE**

11 yrs.

**WEIGHT**

11.9 lbs.

**INTERPRETED BY**

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

**IMAGING  
PERFORMED BY**

Jenna Walsh

**HOSPITAL NAME**

West Hills AH

**REFERRING VET**

Dr. Remcho

**DATE**

10/19/21

**INVOICE**

12.91