



**PATIENT**

Eli Lindsey

**SPECIES**

Canine

**BREED**

Yorkie

**SEX**

Intact male

**AGE**

12 Yrs.

**WEIGHT**

8.2 lbs.

**INTERPRETED BY**

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

**IMAGING PERFORMED BY**

Emily Messner

**HOSPITAL NAME**

TotalBond VH Bethel

**REFERRING VET**

Emily Messner

**INVOICE**

12360

**DATE**

10/18/21

**PRESENTING CLINICAL SIGNS**

**History:** History of calcium oxalate urolithiasis that resulted in urethral obstruction. Cystotomy performed at emergency center in June of 2021. Post-op x-rays suggested discospondylitis, and patient was placed on antibiotics. Did not tolerate medications well at that time and was recently placed on antibiotics (Enrofloxacin) again. Recently owner observed blood coming from penis independent of urination. PE revealed mildly enlarged prostate that is symmetrical on rectal exam. Owner does not report any issues with pets ability to urinate or defecate. X-rays did not show stones in bladder. Patient is intact.

Abnormal PE/Chem/CBC/UA Results: ALKP 168, mildly elevates PSL, normal T4, USG 1.019. Hematuria confirmed.

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

*Urinary System*

The urinary bladder is moderately distended. The wall is normal in thickness with a smooth mucosal surface. A small amount of gravity-dependent mineralized sand vs tiny calculi are observed within the lumen. The region of the trigone and the visible portion of the proximal urethra are normal.

The prostate is enlarged (2.22 cm in length; 1.96 cm in width) with a relatively normal shape. The parenchyma is hyperechoic to slightly heterogeneous in appearance. An ill-defined cystic area is observed within the parenchyma. the prostatic urethra is not overtly dilated.

The left kidney is normal size (4.03 cm in length); normal shape and architecture with smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with moderate loss of corticomedullary distinction. A small cortical cyst (0.35 cm in diameter) is observed at the craniomedial aspect. Several nephroliths are visualized. Trace pyelectasia is present. There is no evidence of infarcts or hydroureter.

The right kidney is normal size (4.05 cm in length); normal shape and architecture with smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with moderate loss of corticomedullary distinction. Several small nephroliths are visualized. There is no evidence of pyelectasia, infarcts or hydroureter.

*Adrenal Glands*

The left adrenal gland is not definitively visualized.

The caudal pole of the right adrenal gland is visualized and is normal in size (0.49 cm in width) with a normal shape, glandular echogenicity and detail. Surrounding vasculature appears normal.

*Spleen*

The spleen is normal in size (0.95 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. A 0.77 cm cyst is observed deep on the left side. Vascular and 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 sludge is observed within the lumen, some of



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which is adhered and some of which appears to have a partially stellate pattern. The cystic and common bile ducts are normal/not seen.

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**Gastrointestinal**

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The gastric lumen is distended with ingesta. 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 segmentally dilated with chyme. 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.

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**Pancreas**

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The left and right limbs of the pancreas are 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.

Intact male

**AGE**

**Free Abdomen**

12 Yrs.

The peritoneal cavity is normal. There is no evidence of inflammation or effusion. The abdominal lymph nodes are normal/not visible.

**WEIGHT**

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**ULTRASONOGRAPHIC FINDINGS**

**Primary Findings:**

- Urinary bladder sand vs. tiny cystic calculi.
- The prostate changes are consistent with benign prostatic hyperplasia with a small parenchymal cyst. Concurrent bacterial prostatitis is also possible.

**Secondary Findings:**

- Bilateral age-related renal changes with non-obstructive nephrolithiasis.
- 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.
- The gallbladder sludge could be consistent with cholestasis or an emerging mucocele. Serial monitoring is recommended to assess for progress.
- The pancreatic changes are most consistent with age-related parenchymal remodeling, potentially secondary to a prior inflammatory episode, early fibrosis or chronic pancreatitis.

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Medicine)

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**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

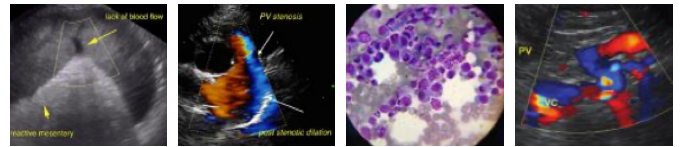
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- A urine culture and sensitivity is recommended to assess for urinary tract infection/bacterial prostatitis. If an aggressive approach is desired, consider castration and cystotomy to flush out the bladder. If stones are present, they should be submitted for analysis and culture.

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- If a more conservative approach is desired, medical dissolution of the urinary bladder sand/stones can be considered with a prescription urinary diet and concurrent antibiotic administration. If this route is pursued, a recheck ultrasound should be performed in approximately 1 month to assess for improvement. The gallbladder should also be evaluated at this time to assess for progression to a mucocele.

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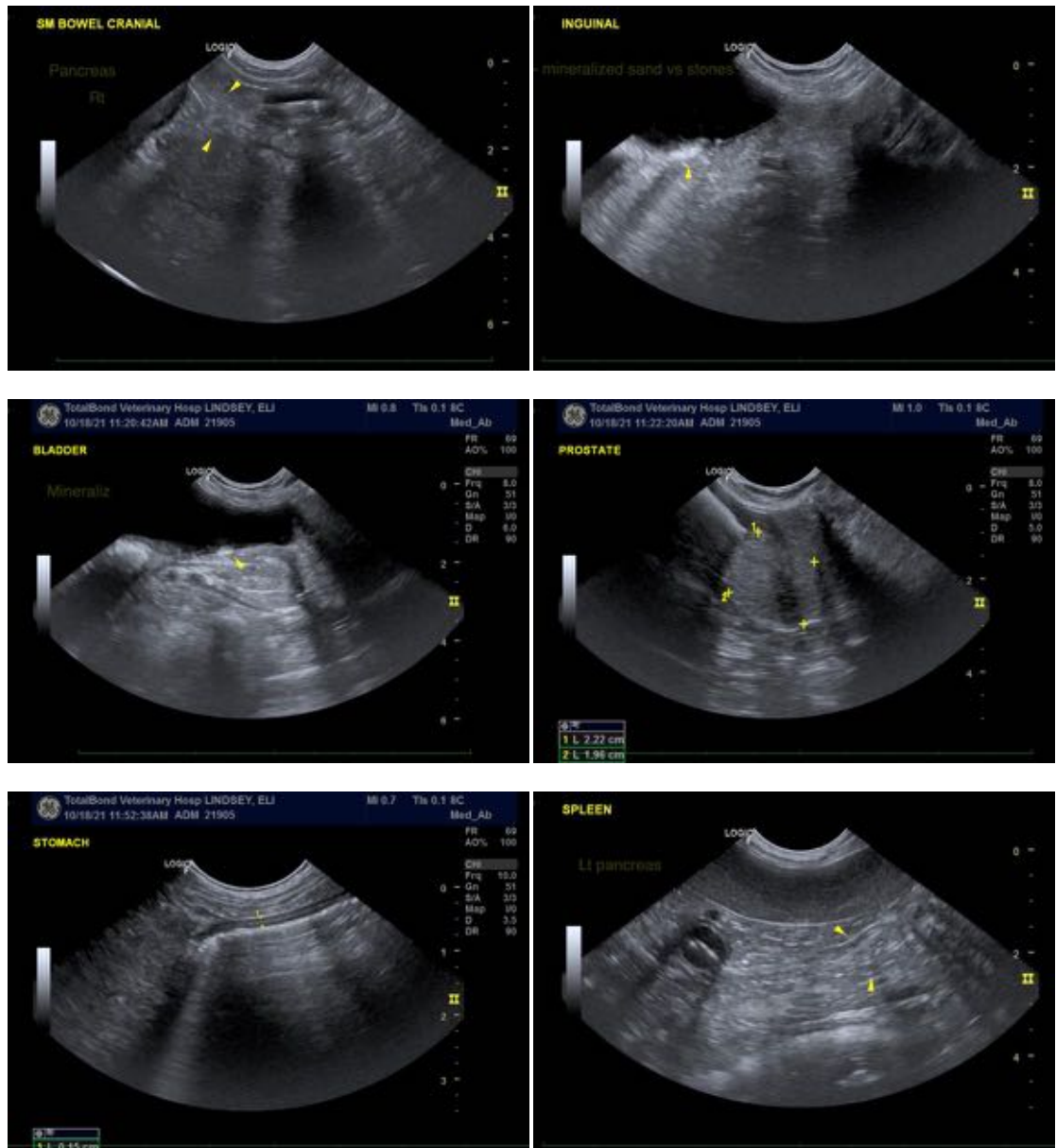
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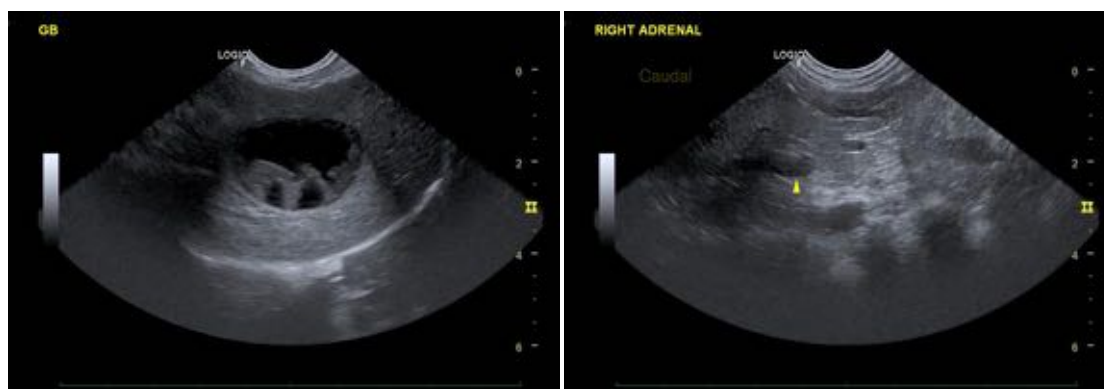
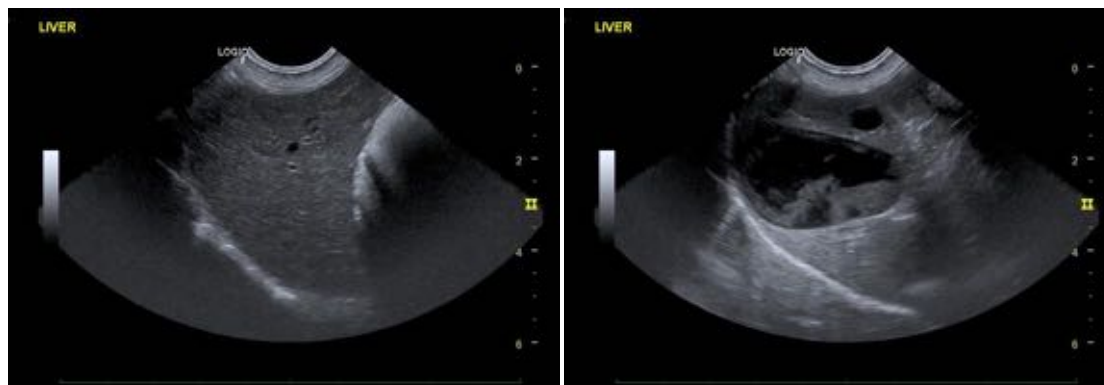
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The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

**IMAGING PERFORMED BY**

Emily Messner

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Andrea.nicastro@sonopath.com

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