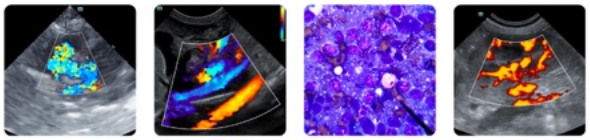




**PATIENT**

Luna Vihrenko

**SPECIES**

Feline

**BREED**

Domestic Shorthair

**SEX**

Spayed female

**AGE**

2 years

**WEIGHT**

10.2 lbs

**INTERPRETED BY**

Alicia Angosto Guerrero, DMV, PgDip, MSc.

**IMAGING PERFORMED BY**

Dr. Giuliani

**HOSPITAL NAME**

The Pet Hospital of Stratford

**REFERRING VET**

Dr. Giuliani

**INVOICE**

74952

**DATE**

4/28/26

## PRESENTING CLINICAL SIGNS

History: Hx of inappropriate urination and bloody urine (one episode in Oct, one earlier this month). Pt has had urine tested, neg for infection but had ammonium phosphate crystals.
User Name: TPHSSonoreport

## ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

### *Urinary System*

The urinary bladder is poorly distended, which limits accurate evaluation of the wall. The wall appears subjectively thickened, although this may be artifactual due to underdistension. The lumen contains abundant echogenic sediment and multiple uroliths. Additionally, small echogenic foci consistent with crystals or microcalculi are observed within the proximal urethra.

The left kidney measures 3.42×1.87 cm, with a cortical thickness of 0.29 cm in the sagittal plane. The right kidney measures 3.74×1.85 cm, with a cortical thickness of 0.32 cm in the sagittal plane. Both kidneys are normal in shape and size for a cat (reference ~3.0–4.5 cm), with cortical thickness within normal limits (~0.3–0.5 cm). The cortex is isoechoic relative to the liver parenchyma. The corticomedullary ratio is within normal limits, and corticomedullary definition is preserved. No pyelectasia, nephrolithiasis, or hydronephrosis is identified. Color Doppler demonstrates a normal vascular pattern.

### *Adrenal Glands*

Not confidently visualized.

### *Spleen*

Splenic thickness is 0.53 cm. The parenchyma demonstrates normal echogenicity and fine homogeneous echotexture without focal parenchymal abnormalities. The splenic capsule is smooth and regular.

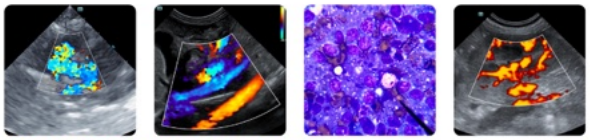
### *Liver*

The liver is subjectively normal in size, with sharp edges and a regular contour. The liver parenchyma looks uniform and isoechoic compared to the falciform fat, with a normal echotexture. No hepatic lymphadenopathy is observed.

The gallbladder lumen is normally distended. The wall is thin and the contents are primarily anechoic with a very small amount of biliary sludge. common bile duct is 4.32-2.36-1.47 mm

### *Gastrointestinal*

The stomach is empty and folded, with a wall thickness of 1.34 mm and preserved layering. The pylorus measures 2.68 mm, with a small amount of luminal fluid, within normal limits. The duodenum measures



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1.09 mm, and the jejunum 1.19–1.38 mm, both within normal limits, with preserved wall layering. Jejunal layer measurements: mucosa 0.69 mm, submucosa 0.34 mm, muscularis propria 0.15 mm. The muscularis-to-mucosa ratio is approximately 0.22 (within normal limits). The ileum measures 1.18 mm, within normal limits. The ileocecal junction measures 3.09 mm, with mucosa 0.78 mm and muscularis 0.65 mm, indicating a mildly increased muscularis-to-mucosa ratio at this level (~0.83). The colon measures 0.83–0.90 mm, within normal limits, with formed feces.

### *Pancreas*

Pancreatic thickness is 3.78 mm, within normal limits. The parenchyma is isoechoic relative to adjacent omental fat. The pancreatic duct measures 0.44 mm, within normal limits. No peripancreatic fat changes are observed.

### *Free Abdomen*

No sonographic evidence of abdominal effusion, peritonitis, or lymphadenomegaly is identified. The iliac trifurcation is normal.

## PRIMARY FINDINGS

- Poorly distended urinary bladder with abundant sediment and multiple uroliths
  Echogenic material within the proximal urethra consistent with crystals/microcalculi
- Mildly increased muscularis-to-mucosa ratio at the ileocecal junction (isolated finding)

## INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The dominant finding is clinically significant lower urinary tract disease, characterized by abundant intravesical sediment, multiple uroliths, and evidence of crystalluria extending into the proximal urethra.

Although bladder wall assessment is limited due to underdistension, the combination of urolithiasis, sediment, and urethral crystal passage strongly supports active urinary tract irritation and inflammation.

Given the prior identification of ammonium phosphate (struvite) crystals, the current findings are consistent with a struvite-associated lower urinary tract process, although definitive composition requires analysis.

The gastrointestinal tract is largely unremarkable. A mild increase in the muscularis-to-mucosa ratio at the ileocecal junction is noted but is isolated and not accompanied by diffuse intestinal changes, making it of uncertain clinical significance at this time.

Recommendations

- Clinical management of urolithiasis is recommended.

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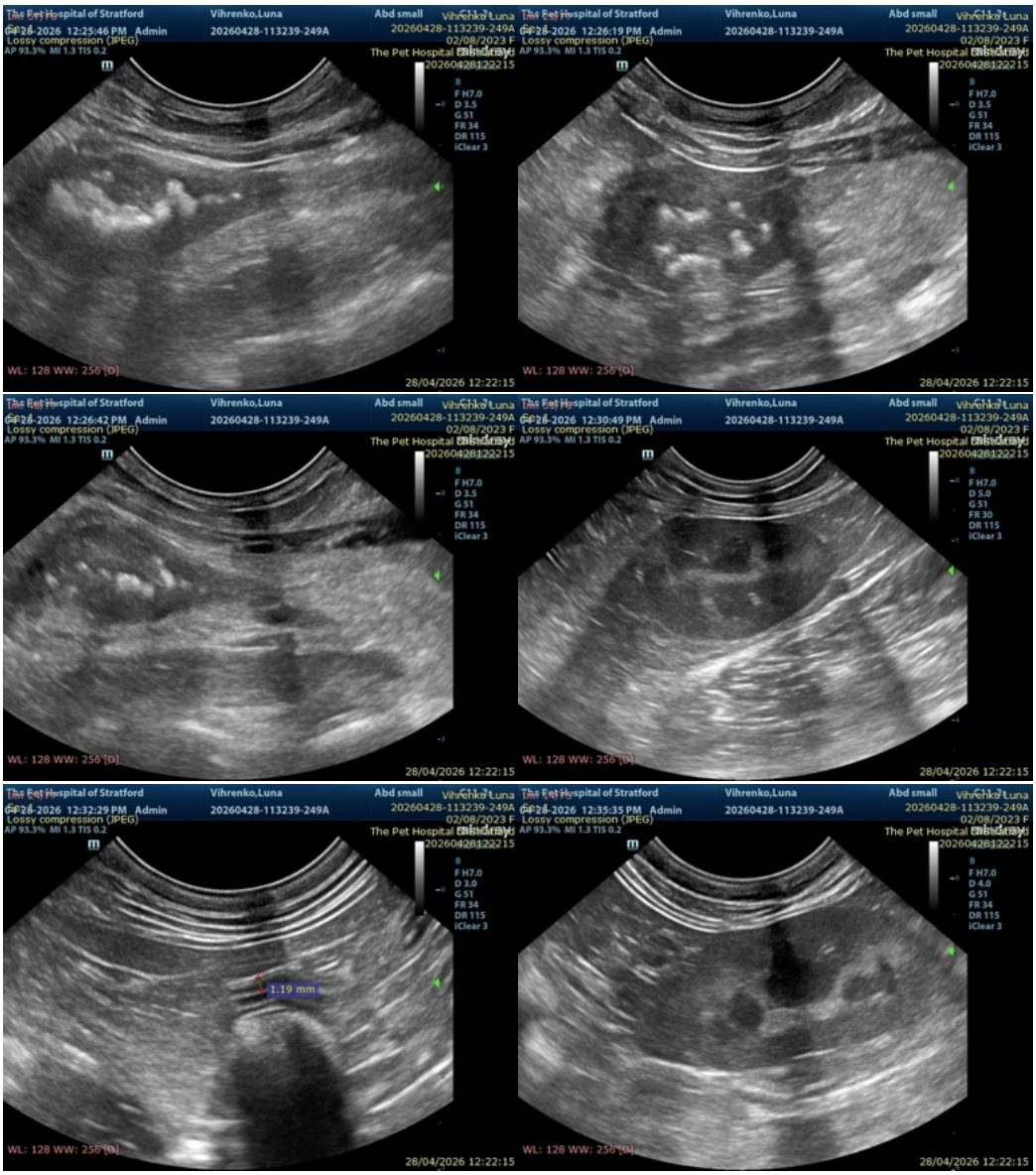
- Urine pH and sediment characterization should be reviewed, and dietary dissolution therapy (if struvite is suspected) may be appropriate.
- Urolith analysis is recommended if stones are passed or removed, to guide long-term prevention.

Final diagnostic and therapeutic decisions should be made by the attending veterinarian, who can best integrate these findings with the patient's clinical status.



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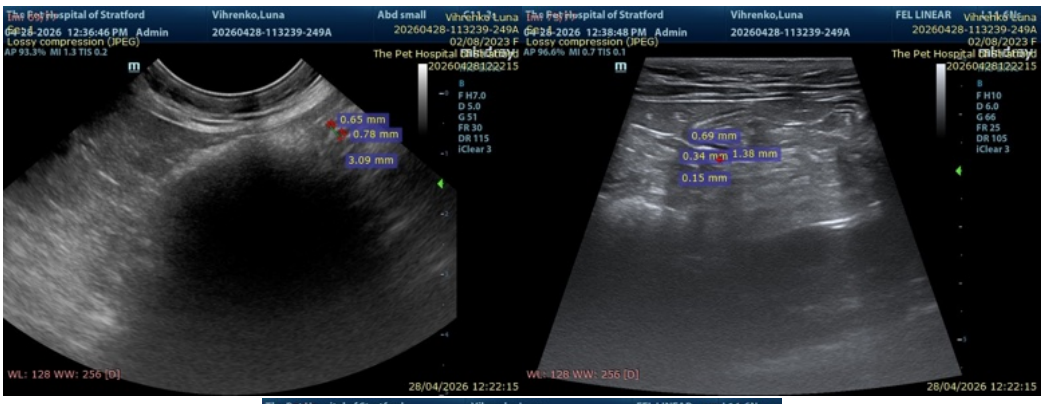


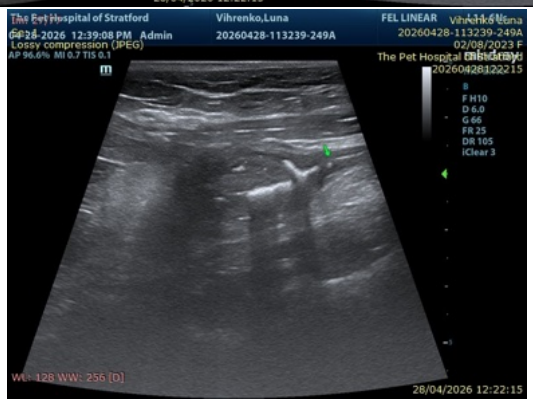


**The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.**

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.

**Alicia Angosto Guerrero**, DMV, PgDip, MSc.

info@SonoPath.com