SonoPath
Clinical Sonography & Telecytology
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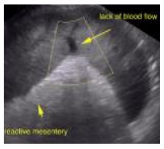
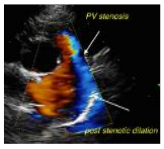
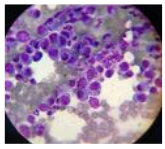
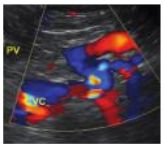





SonoPath.com
1-800-838-4268 info@sonopath.com

**PATIENT**

Skittles North

**SPECIES**

Feline

**BREED**

DSH

**SEX**

MN

**AGE**

3

**WEIGHT**

11 lbs.

**INTERPRETED BY**

R. McKenzie Daniel, DVM, DABVP (Canine and Feline)

**IMAGING PERFORMED BY**

Dr. Sorbo

**HOSPITAL NAME**

Mill Brook AC- VBF

**REFERRING VET**

Dr. Sorbo

**INVOICE**

**DATE**

2/1/23

## PRESENTING CLINICAL SIGNS

Stranguria. History of FLUTD, but no cause identified previously. O wants AUS to r/o renal involvement of uroliths.

Abnormal PE/Chem/CBC/UA Results: Struviteuria, rest of UA and blood work wnl. I was able to unblock the P by saline retropulsion of the distal urethra which released a mucus plug.

## ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

### *Urinary System*

The urinary bladder was normal in size and tone. The urinary bladder walls were sonographically normal without evidence of overt or significant inflammatory criteria. No urinary bladder tumors were present. Anechoic urine was present with moderate dependent hyperechoic to mildly shadowing mineral, along with dependent to nondependent particulate sediment and mucus. The area of the trigone and cystourethral junction were free of mural pathology. The urethra was normal in structure and tone to a depth of 2.0 cm. No evidence of post urinary obstructive criteria.

Normal size and margination were present in the kidneys. A normal 1:3 cortex / medulla ratio and normal corticomedullary definition were maintained. The echogenicity of the cortex was similar to or slightly less than normal liver parenchyma while the medulla echogenicity was hypoechoic to the cortex with no evidence of pelvic dilation. A hyperechoic corticomedullary band, consistent with an indistinct discrete medullary rim sign, was present. This is a nonspecific finding seen in both normal and abnormal kidneys. It may be associated interstitial renal disease, hypercalcemia, tubular necrosis, lymphoma, and FIP. However, it is a nonspecific finding. No pyelectasia was present in either kidney. The left kidney measured 4.0 cm. The right kidney measured 3.8 cm.

### *Adrenal Glands*

The left adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The left adrenal gland measured 0.29 cm.

No overt pathology was noted in the area of the right adrenal gland.

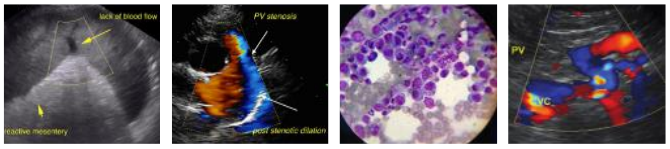
### *Spleen*

The spleen exhibited a finely textured and homogenous parenchyma which was hyperechoic to the liver and renal cortical parenchyma. The capsule was smooth and regular without apparent expansion. The splenic vasculature at the hilus was normal in volume with no evidence of congestion or thrombosis. Acute to chronic inflammatory, neoplastic, or benign parenchyma changes were not noted.

### *Liver/ Gallbladder*

The liver was subjectively normal in size, structure, and contour. The liver parenchyma was uniform and hypoechoic to the spleen with a mild coarse echotexture. The hepatic and portal vasculature were normal in appearance without signs of congestion. The gallbladder was non-distended in size with thin walls and primarily anechoic luminal content. The cystic and common bile ducts were normal.

### *Gastrointestinal*



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The stomach presented moderate wall thickening secondary to echogenic mucosa hypertrophy. Intact wall layering was maintained and distinct. Variably echogenic ingesta was present, likely postprandial presentation.

The small intestine presented intact wall layering with 1:3 muscularis/mucosa ratio. The lumen of the small intestine was empty with no signs of ileus, obstruction, or foreign material.

Normal visible colon wall layers were present with apparent formed feces in lumen.

***Pancreas***

The parenchyma of the left limb, body, and right limb of the pancreas presented isoechoic to the adjacent omental fat. A normal curvilinear capsule contour of the pancreas was present. The visible pancreatic duct was normal. No signs of active inflammation or neoplastic disease were evident.

***Free Abdomen***

No overt lymphadenopathy or peritoneal effusion was present.

**ULTRASONOGRAPHIC FINDINGS**

- Moderate dependent urinary bladder mineral and dependent to nondependent particulate sediment/mucus, overtly normal urinary bladder walls/visualized proximal urethra
- Bilateral indistinct to discrete nonspecific renal medullary rim sign- no evidence of renal calculi or pyelonephritis

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

If a catheter is currently placed in this patient, or as a potential consideration in the future, if recurrent obstruction, urinary bladder flush with sonographic monitoring, in an attempt to evacuate urinary bladder mineral and concurrent sediment/mucus, could be considered.

Continued empirical therapy for feline lower urinary tract disease without evidence of significant cystitis urinary bladder changes, which may include urinary therapy, canned urinary diet, increased water intake and additional therapeutics, with assessment of clinical response and potentially as needed sonographic monitoring of the urinary bladder, would be reasonable.

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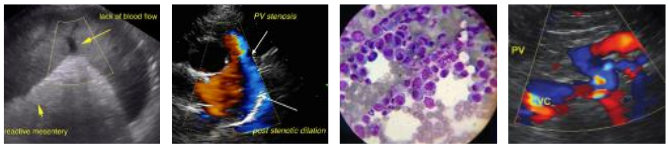

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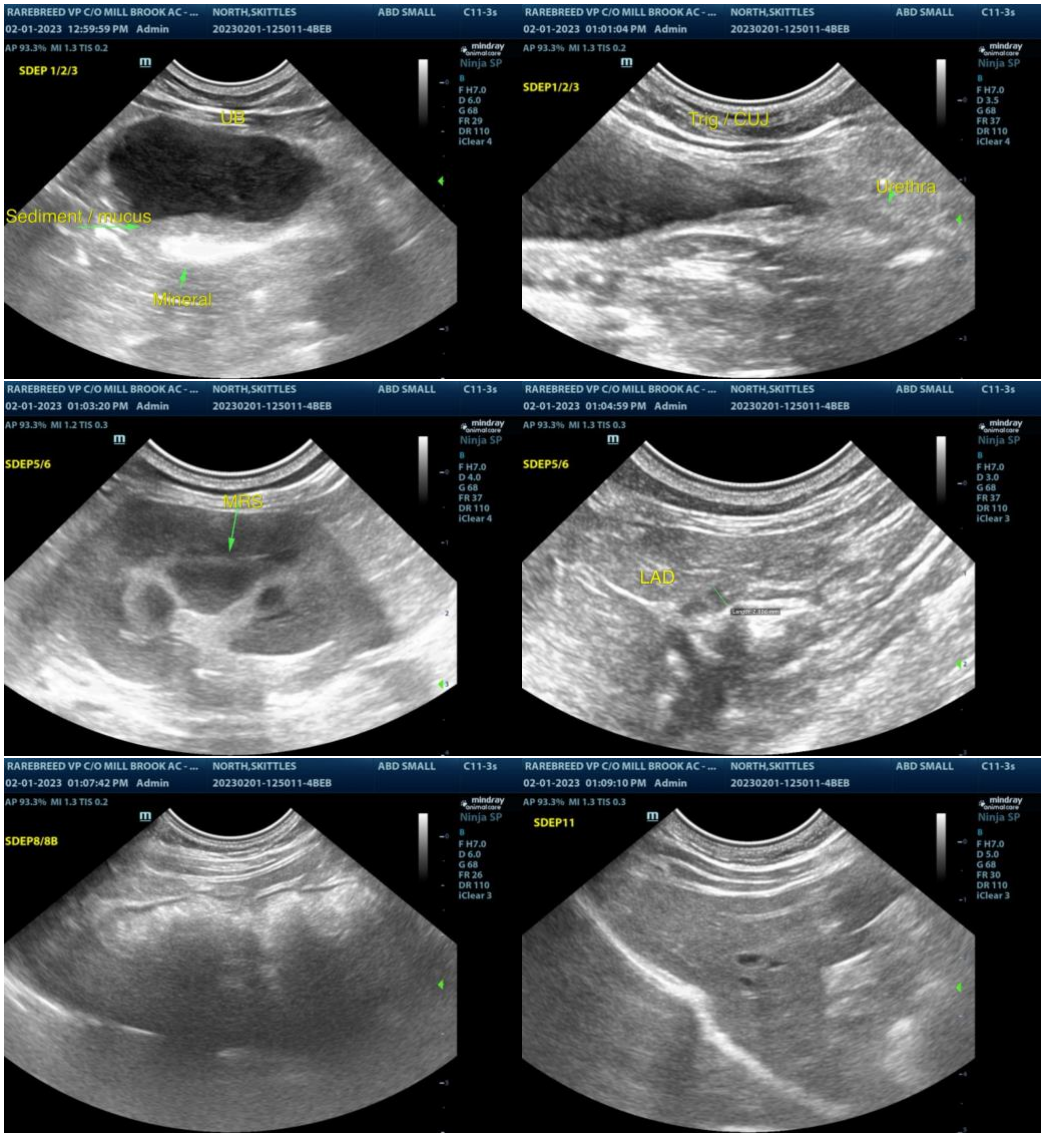

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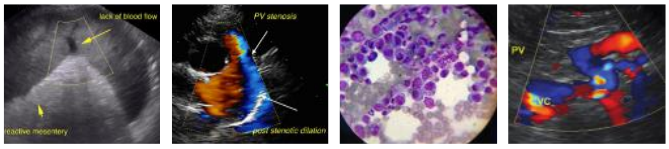

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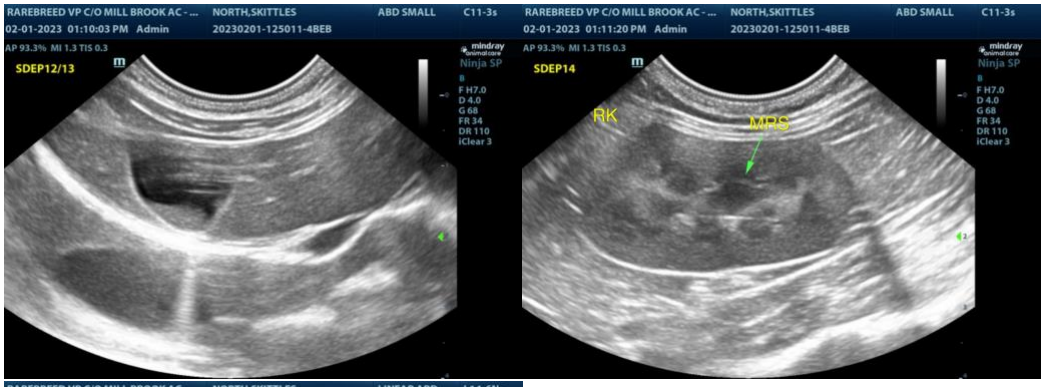



**The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.**

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.

**R. McKenzie Daniel, DVM, DABVP (Canine / Feline Practice)**
**info@SonoPath.com**