



**PATIENT PRESENTING CLINICAL SIGNS**

Misty MacDonough History: Chronic UTI's and urinary incontinence. Mild liver value elevations stable over past year. Last USF 1.024

**SPECIES ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

Canine **Urinary System**

**BREED**

West Highland Terrier

**SEX**

Spayed Female

**AGE**

10 Years 11 Months

**WEIGHT**

21 Pounds

**INTERPRETED BY**

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

**IMAGING PERFORMED BY**

Loetitia Saint-Jacques, RVT  
LVT

**HOSPITAL NAME**

Donner Truckee VH

**REFERRING VET**

Dr. Vannini

**INVOICE**

15271

**DATE**

5/21/22

The urinary bladder was normal in size and tone. Generalized mildly prominent urinary bladder walls, exhibiting homogeneous mural echotexture, mild asymmetrical luminal surface contour. No evidence of neoplastic criteria. The apical urinary bladder wall measured 0.33 cm in width. Primarily anechoic urine was present. Multiple pinpoint to small focal areas of primarily dependent urinary bladder mineral. Minor areas of nonobstructive mineral were also present in the proximal urethral lumen. The proximal urethra exhibited overtly normal structure and tone to a depth of 2.0 cm.

Normal size and margination were present in the kidneys. A normal 1:3 cortex / medulla ratio was maintained. The medulla and cortices were uniform in texture with some increased echogenicity and mild to moderate loss of corticomedullary symmetry and definition expected for the age of the patient. No evidence of pelvic dilation was present. Focal areas of nonobstructive medullary mineral present. The left kidney measured 4.3 cm in length. The right kidney measured 4.7 cm in length.

**Adrenal Glands**

The left adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The left adrenal gland measured 0.48 cm width at the caudal pole and 0.37 cm width at the cranial pole.

The right adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The right adrenal gland measured 0.36 cm width at the caudal pole and 0.28 cm width at the cranial pole.

**Spleen**

The spleen was normal in size and overall contour. Mild generalized splenic parenchymal heterogeneity noted. Areas of hyperechoic medial splenic parenchyma, primarily adjacent to the hilus present.

**Liver**

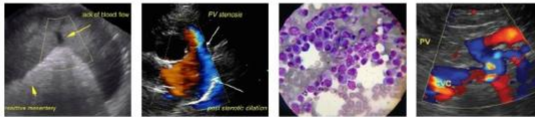
The liver was subjectively normal in size, structure, and contour. The liver parenchyma was uniform and hypoechoic to the spleen with a mild coarse echotexture. The hepatic and portal vasculature were normal in appearance without signs of congestion.

The gallbladder was non-distended in size. The gallbladder walls were normal without evidence of inflammation. Primarily anechoic content was present with mild dependent to nondependent nonorganized luminal debris. The cystic and common bile ducts were normal.

**Gastrointestinal**

The stomach presented intact wall layering with a normal wall layer ratio. The lumen of the stomach was empty with no signs of ileus, obstruction or foreign material.

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.



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

Misty MacDonough **Pancreas**

**SPECIES** The pancreas was normal in size and contour with isoechoic to heterogeneous parenchyma compared to adjacent omentum. No signs of neoplasia. The heterogeneous pancreas is likely consistent with age-related pancreatic changes and considered incidental. No evidence of active inflammation.

Canine

**Free Abdomen**

**BREED**

West Highland Terrier

Intermittent medial iliac and mesenteric lymph node were present. The lymph nodes were essentially isoechoic to adjacent omentum and maintaining a normal width: length ratio (<0.5). These lymph nodes were not consistent with inflammatory or neoplastic criteria and likely incidental. An example of medial iliac lymph node measured 1.9 cm x 0.46 cm.

**SEX**

Spayed Female

**Other**

No overt pathology in the area of the uterine remnant.

**AGE**

10 Years 11 Months

**ULTRASONOGRAPHIC FINDINGS**

**WEIGHT**

21 Pounds

- Mild primarily dependent urinary bladder and nonobstructive proximal urethral mineral, suspect mild cystitis
- Bilateral chronic renal changes with nonobstructive medullary mineral
- Benign splenic nodules, probable benign myelolipomas or medial capsule fibrosis
- Benign hepatopathy
- Mild gallbladder debris (non-mucocele)

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**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

Recheck urine culture and sensitivity on sterile urine sample recommended, if not recently done. This patient may be passing small amounts of mineral from the kidneys into the urinary bladder. If crystal-type could be identified on urinalysis, dissolution diet may prove beneficial. No overt evidence of a portosystemic shunt, yet bile acid testing could be considered, if clinically indicated. Hepatosupportive medications, including Denamarin and ursodiol suggested, if not currently instituted, with continued monitoring of hepatic enzymes.

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**PATIENT**

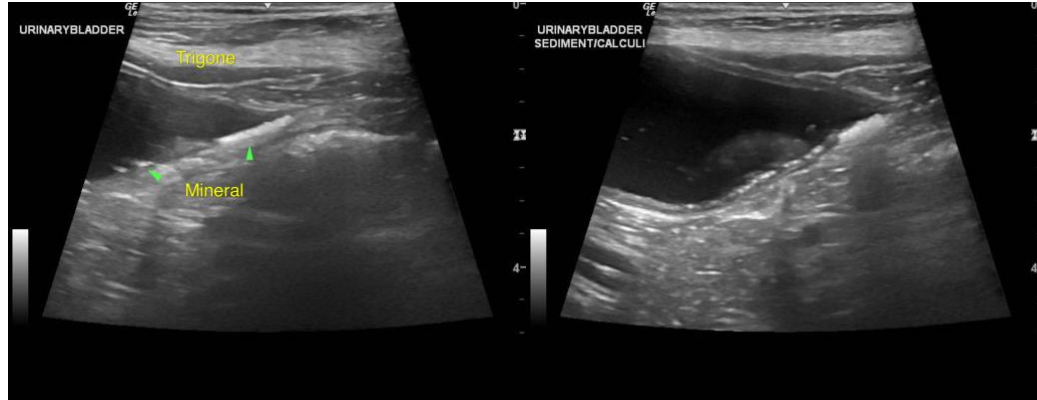
Misty MacDonough

**SPECIES**

Canine

**BREED**

West Highland Terrier



**SEX**

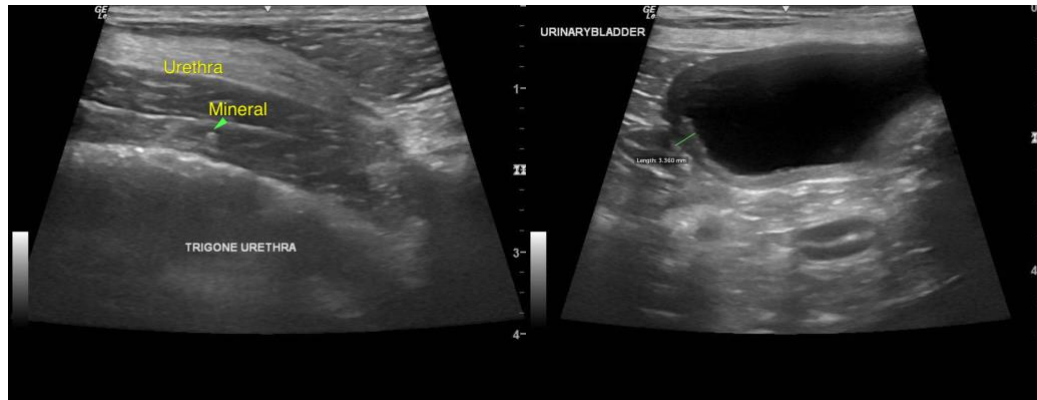
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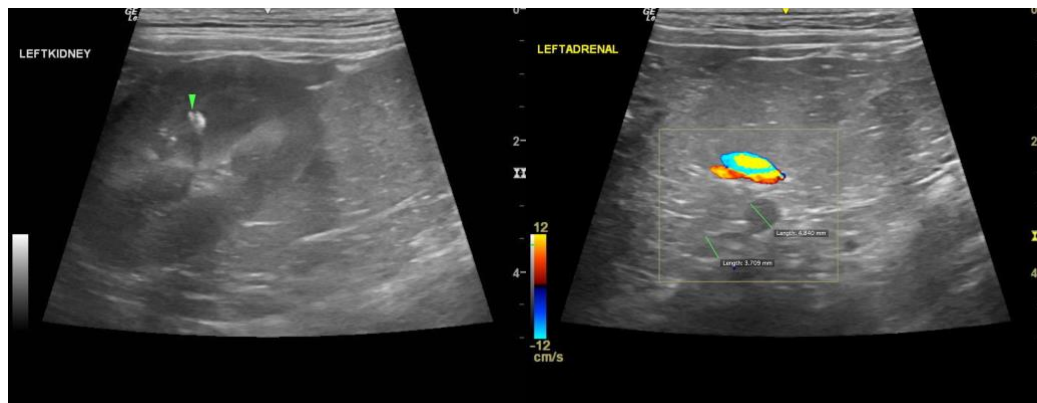


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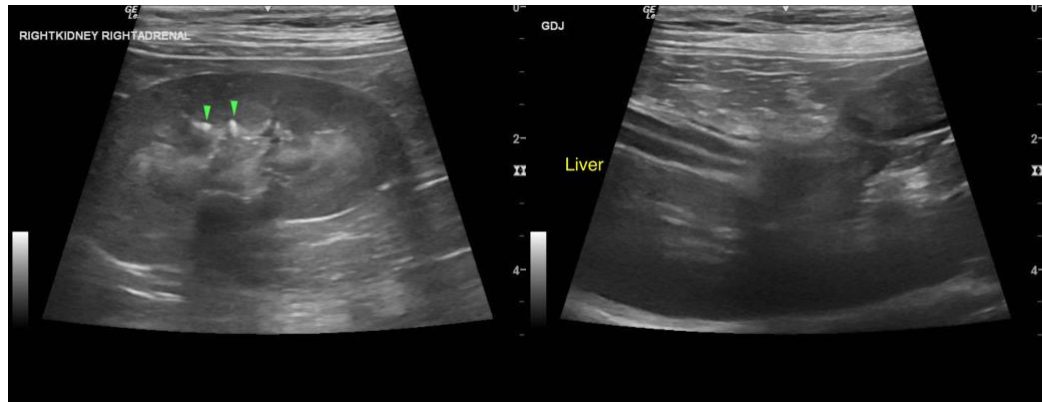
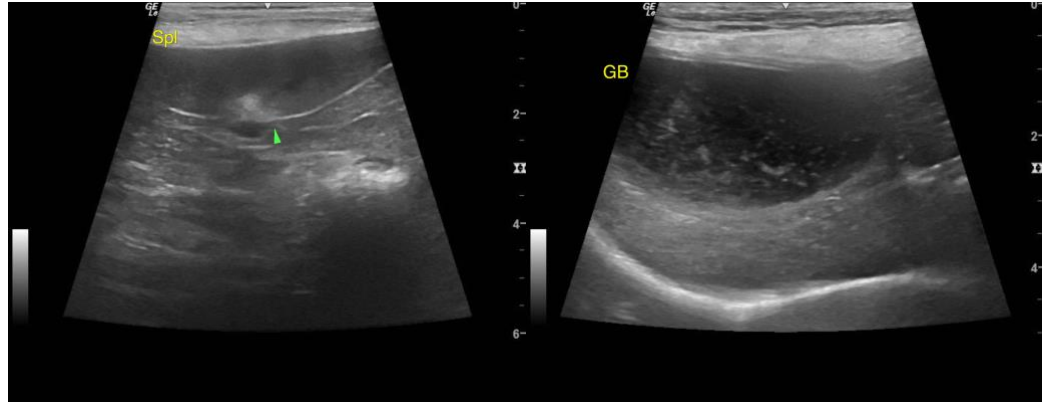
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The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

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

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