



**PATIENT**

Rumi Tipnis

**SPECIES**

Canine

**BREED**

Shih Tzu Mix

**SEX**

NM

**AGE**

13y 9m

**WEIGHT**

22.8 lbs.

**INTERPRETED BY**

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

**IMAGING PERFORMED BY**

Michaleen

**HOSPITAL NAME**

DPC VH

**REFERRING VET**

Dr. Weekes

**INVOICE**

17190

**DATE**

6/28/23

**PRESENTING CLINICAL SIGNS**

13 y/o n,m shih tzu mix presents for constant diarrhea for the past two days. O states that it was slightly solid but has now become more liquidy. O has not seen any blood in the stool as of yet. P was here 6/19 for coughing, O has been giving hycodan as needed for it since then.

Abnormal PE/Chem/CBC/UA Results: Mentation: QAR EENT: corneal opacity OU; visible dimple on cornea OS; (+/-) cataract changes may be present Oral Cavity: moderate calculus carnassials Musculoskeletal: some muscle wasting on hind quarter CBC morphology/ pathological Review PENDING

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

**Urinary System**

The urinary bladder was normal in size and tone containing mild anechoic urine without evidence of urinary bladder urine distention, which prohibited full evaluation of the urinary bladder walls. No urinary bladder tumors were noted. Mild anechoic urine was present with several to multiple dependent urinary bladder and prostatic urethra lumen calculi. No evidence of urethral obstruction was noted. An example of a small calculus measured 0.45 cm diameter. The proximal urethra exhibited normal structure and tone to a depth of 3.0 cm.

The residual prostate was symmetrically normal in size with uniform parenchyma and slight coarse echotexture measuring 1.0 cm in diameter.

No evidence of pathology in the area of the aortic trifurcation.

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 loss of corticomedullary symmetry and definition expected for the age of the patient. No evidence of pelvic dilation was present. The left kidney measured 5.1 cm in length. The right kidney measured 5.4 cm in length. Focal areas of mild medullary mineral were noted.

**Adrenal Glands**

The left adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The left adrenal gland measured 0.50 cm width at the caudal pole and 0.36 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 0.66 cm width at the caudal pole and 0.48 cm width at the cranial pole.

**Spleen**

The spleen was overall normal in size with a primarily finely textured and homogenous parenchyma. A solitary, isoechoic, nonhomogeneous, mildly expansive nodule was present in the craniomedial spleen measuring 1.6 cm in diameter. The nodule mildly distorted the associated splenic capsule without evidence of parenchymal escape.



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***Liver/ Gallbladder***

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The liver was subjectively borderline to mildly enlarged yet maintained symmetrical capsule contour with generalized nonhomogeneous to mildly mixed echogenic hepatic parenchyma with intermittent nondisruptive subtly hypoechoic intraparenchymal nodules. An example of a nodule measured 1.1 cm in diameter. The gallbladder was non-distended in size containing primarily anechoic content with mild gallbladder sediment. The cystic and common bile ducts were normal.

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***Gastrointestinal***

**SEX**

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 gastric body wall width measured 0.35 cm.

NM

**AGE**

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. The duodenum wall measured 0.42 cm width. The jejunum wall measured 0.31 cm width.

13y 9m

Normal visible colon wall layers were present with semi-formed to soft fecal matter, consistent with patient history.

**WEIGHT**

22.8 lbs.

***Pancreas***

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The pancreas base and right pancreatic limb were normal in size and contour with isoechoic to heterogeneous parenchyma compared to adjacent omentum. No signs of active inflammation or neoplasia.

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***Free Abdomen***

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No overt lymphadenopathy or peritoneal effusion was present.

Michaleen

**ULTRASONOGRAPHIC FINDINGS**

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- Small nonobstructive urinary bladder and prostatic urethra lumen calculi
- Chronic renal changes with focal medullary mineral
- Nonspecific mildly expansive splenic nodule - hyperplasia, hematopoiesis, focal splenitis, granuloma, emerging neoplasia i.e., sarcoma, round cell neoplasia, etc., all potentials
- Nonhomogeneous / nodular liver - vacuolar hepatopathy, inflammatory / immune-mediated disease, hyperplasia, hematopoiesis, fibrosis, infiltrative neoplasia, possible
- Mild gallbladder sediment (non-mucocele)
- Overtly normal gastrointestinal tract
- Pancreatic remodeling



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**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

Urine C/S on a sterile urine sample is recommended. Assuming normal clotting status and using a 25-gauge needle, screening hepatic and splenic nodule FNA cytology is warranted for further assessment.

At times, gastroenterocolic appearance may not always correlate with recent or current gastrointestinal signs. Potential considerations may include dietary intolerance / food hypersensitivity, dysbiosis, structurally insignificant inflammatory disease, infectious diseases, occult parasitism, occult Addison's Disease, occult infiltrative neoplasia (less likely), or low-grade to chronic pancreatitis, which may present as sonographically normal. A GI panel to include PLI/TLI/Cobalamin/Folate is recommended.

Empirically, a limited antigen or hydrolyzed diet trial with potential long-term dietary therapy, prophylactic deworming (Panacur 50 mg/kg SID x 5 consecutive days with repeat protocol in 3 weeks even if fecal testing is negative), high colony count probiotic (Provable or Visbiome), antibiotic trial and as needed gastrointestinal support with assessment of clinical response may prove beneficial. Intestinal biopsies may be indicated if GI signs continue despite empirical therapy.

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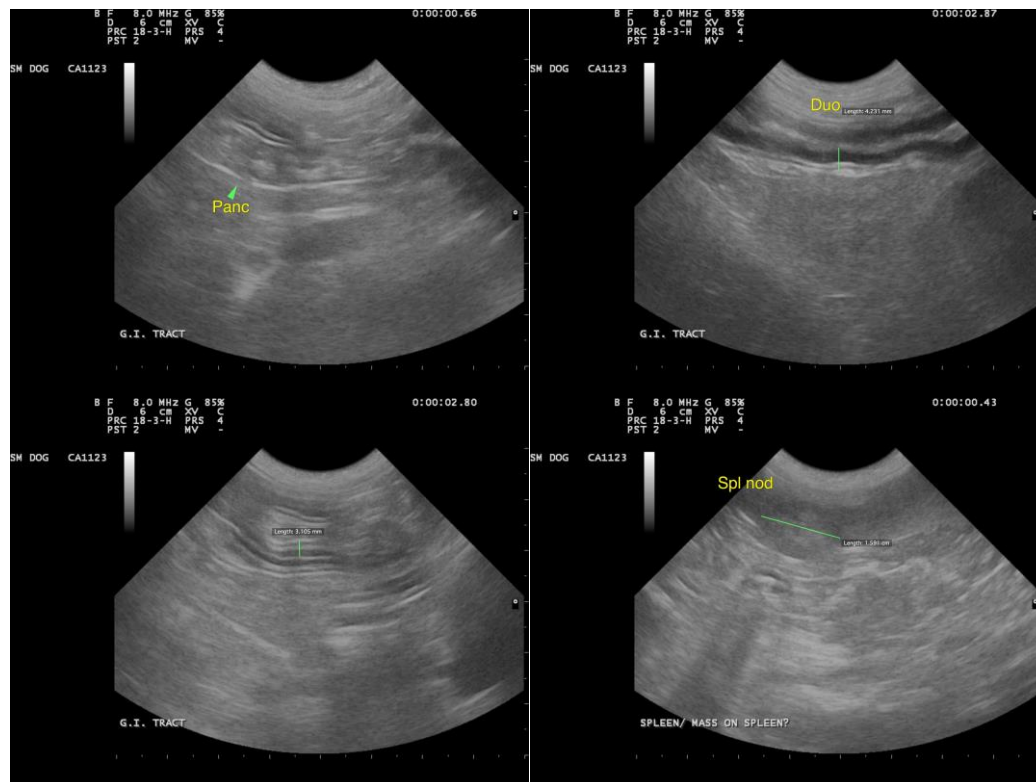
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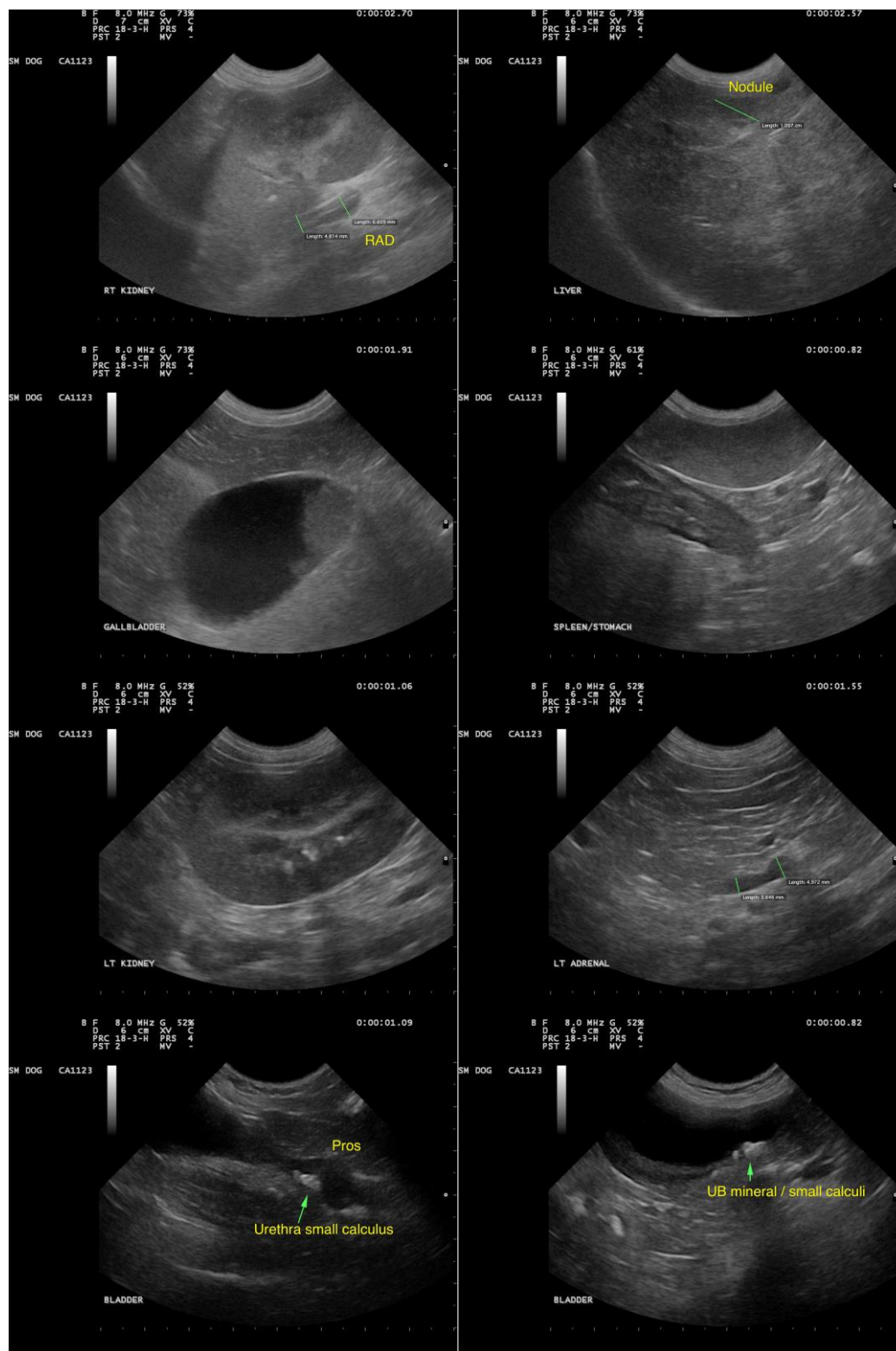
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**The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.**

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)**  
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