



**PATIENT**

Nena Borrero

**SPECIES**

Canine

**BREED**

Shih Tzu

**SEX**

Spayed Female

**AGE**

8 Years

**WEIGHT**

8.5 kg

**INTERPRETED BY**

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

**IMAGING PERFORMED BY**

Erin Wicks

**HOSPITAL NAME**

Shores VEC

**REFERRING VET**

Dr. Miller

**INVOICE**

37835

**DATE**

5/21/22

**PRESENTING CLINICAL SIGNS**

Presented at our hospital 5/12/22 for trouble walking. . Owner isn't aware of any injuries. Patient did not want to eat. Patient is stumbling when walking and crying in pain when touched. Previous Health Concerns: none Current Medications/Supplements/OTC: none

Abnormal PE/Chem/CBC/UA Results: 5/12/22 Rad- hepatomegaly; mild cardiomegaly; increase interstitial pattern; large , gas distended stomach- possible gastric fb on VD thickened small bowel. Pre-surg- glucose 143(H) alp 144 (H) EPOC- Lact 5.54(H) glucose 145 (H)

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

**Urinary System**

The urinary bladder, trigone, cystourethral junction, and visible pelvic urethra to a depth of 2.0 cm exhibited normal thickness and tone. Primarily anechoic urine was present in the lumen with mild dependent material. The ureteral papillae were normal. The ureters were not visible which is normal. No evidence of inflammatory or neoplastic changes were noted.

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. The left kidney measured 4.7 cm. The right kidney measured 4.7 cm.

**Adrenal Glands**

The left adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The left adrenal gland measured 1.6 cm x 0.44 cm at the caudal pole.

The right adrenal gland was indistinctly visualized, yet without overt pathology, subjectively measuring 0.46 cm at the caudal pole.

**Spleen**

The spleen exhibited a finely textured and homogenous parenchyma which was hyperechoic to the liver and renal cortical parenchyma. A solitary non-expansive, hypoechoic nodule was noted in the cranial spleen measuring 0.45 cm in diameter. 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**

The liver was mildly enlarged. The parenchyma of the liver was subjectively normal in echogenicity compared to the spleen and renal cortices. The liver parenchyma was uniform with a mildly coarse echotexture. The capsule of the liver was symmetrically rounded to mildly swollen in margination. The hepatic and portal vasculature were normal in appearance without signs of congestion. The gallbladder was non-distended in size with primarily anechoic luminal content. The cystic and common bile ducts were normal

**Gastrointestinal**

The stomach presented intact wall layering with a normal wall layer ratio. A moderate amount of hyperechoic to strongly shadowing ingesta was present.



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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.

**SPECIES**

Canine

**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 was evident.

**BREED**

Shih Tzu

**ULTRASONOGRAPHIC FINDINGS**

**SEX**

Spayed Female

- Mild urinary bladder dependent mineral.
- Non-expansive solitary hypoechoic splenic nodule – multiple potential etiologies including focal lymphoid hyperplasia, hematopoiesis, small hematoma, inflammation, with neoplastic criteria considered unlikely yet cannot be definitively excluded.

**AGE**

8 Years

- Mild vacuolar hepatopathy pattern.
- Strongly shadowing gastric ingesta, sonographically unremarkable small bowel.

**WEIGHT**

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**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

Sonographic monitoring of the splenic nodule +/- ultrasound guided FNA (if persistent or progression and assuming normal clotting status) would be reasonable.

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The strongly shadowing gastric ingesta is non-specific and may indicate recent meal ingestion with dense ingesta. However, primary concern for gastric foreign material indicated. Conservatively, radiographic or sonographic monitoring of the shadowing gastric ingesta over the next 24 hours could be considered. Assuming no evidence of neurological or musculoskeletal abnormalities as a potential cause of the patient's potential ataxia, or if persistent evidence of retained foreign body on radiographs versus persistent shadowing ingesta on ultrasound, laparotomy with gastrotomy may be indicated.

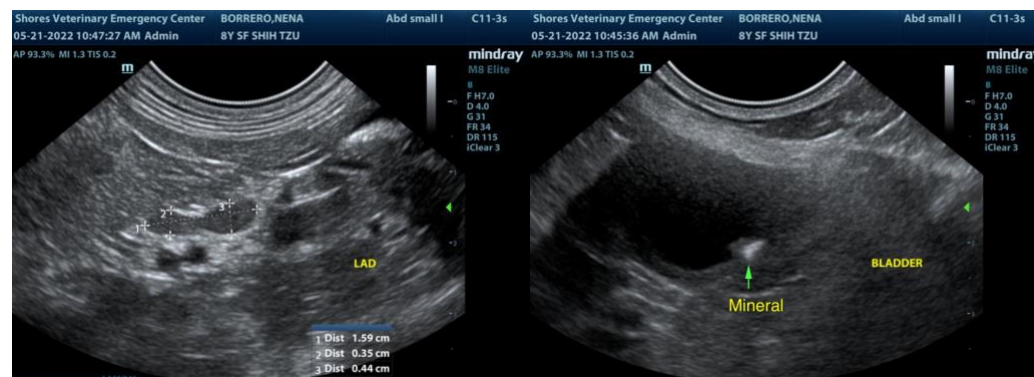
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Urine culture and sensitivity on sterile urine sample suggested, given the presence of urinary bladder mineral.

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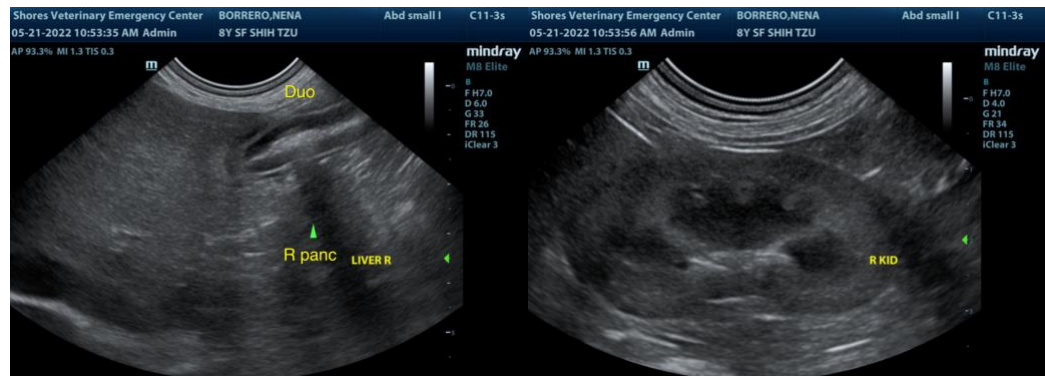
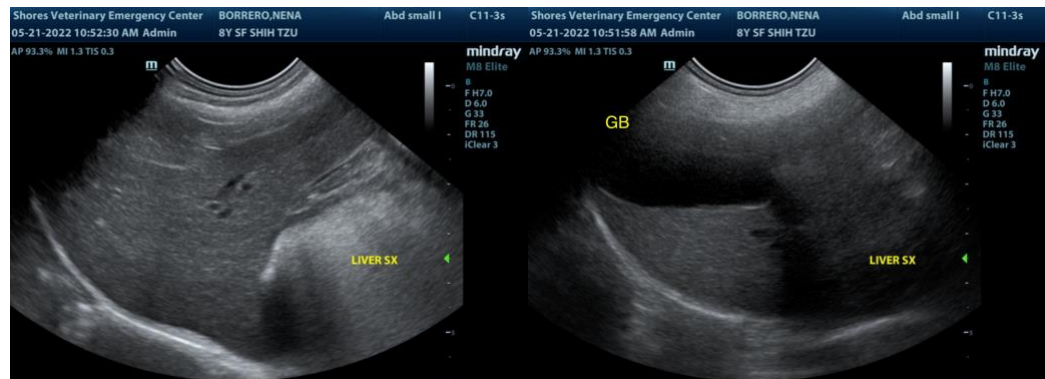
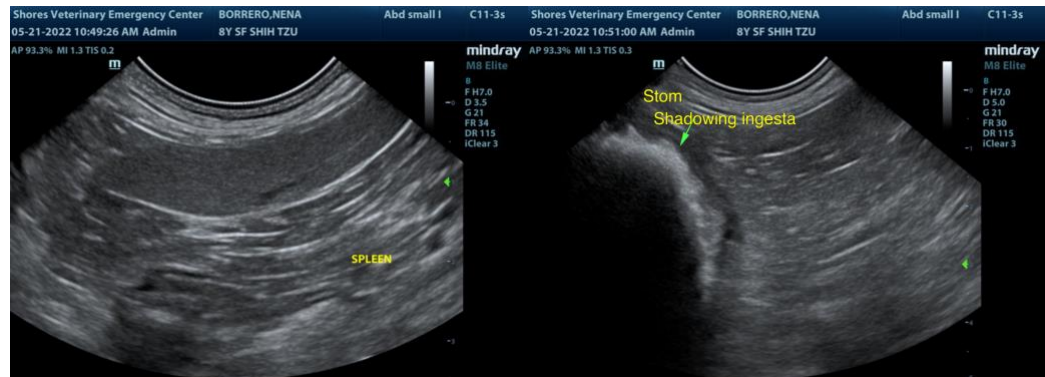
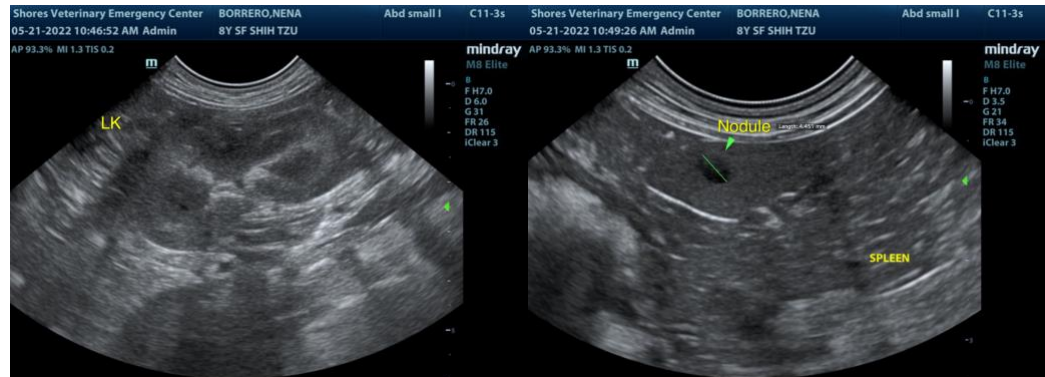
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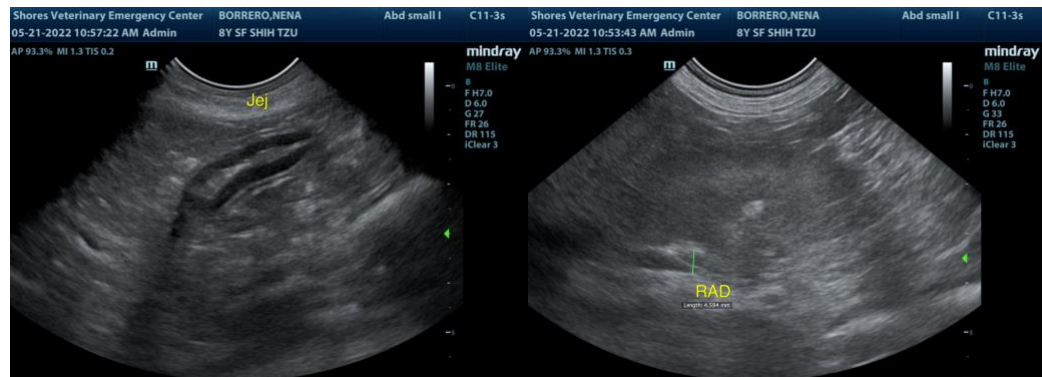
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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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