



**PATIENT**

Nina Garcia

**SPECIES**

Canine

**BREED**

Shih Tzu Mix

**SEX**

S/F

**AGE**

9Y 8M

**WEIGHT**

8.9 lbs.

**INTERPRETED BY**

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

**IMAGING PERFORMED BY**

Dr. Rivera

**HOSPITAL NAME**

DPC VH

**REFERRING VET**

Dr. Rivera

**INVOICE**

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**DATE**

8/17/22

**PRESENTING CLINICAL SIGNS**

Reason for Visit: Follow up from ER History: Pet presented to LeadER on 8/15 with hx of ADR, shaking, lethargic and eating less than normal. Bloodwork showed ELE and mild anemia. Thoracic/abdominal radiographs were performed and showed: - The splenic contours are moderately rounded, indicating diffuse enlargement. A thin linear metal opacity (approximately 2 cm) is persistently noted partially superimposed over and cranial to the pyloric antrum. The remaining major abdominal organs including liver, gastrointestinal- and urinary tract are unremarkable. The central peritoneal serosal detail is mildly decreased. - Likely incidental findings include osteochondral degenerative changes. The remainder of the included musculoskeletal structures are within normal limits. CONCLUSIONS: - Mild splenomegaly is evident and differential diagnoses include congestion, extramedullary hematopoiesis, splenitis or neoplasia. - The decrease in the central peritoneal serosal detail can be due to the combination of superposition of the spleen over the closely positioned enterocolonic tract. However, mild, central peritoneal effusion or peritonitis and also be considered. - The thin metal opacity in the right cranial aspect of the abdomen can represent a small peritoneal foreign body (small wire, staple, etc.) and is of uncertain clinical significance given the reported history and in the absence of overt peritoneal effusion/peritonitis. Similar small metal opacities are often identified in asymptomatic patients and are usually considered incidental. - The diffuse unstructured interstitial pulmonary changes are likely age-related in the absence of reported respiratory signs. Micrometastases or pulmonary fibrosis cannot be entirely excluded.

Abnormal PE/Chem/CBC/UA Results: CV/Respiratory: Normal heart rate and rhythm, no murmur, pulses strong and synchronous, normal bronchovesicular sounds. EENT: Clear OU and AU. No nasal discharge. No cough on tracheal palpation. Oral cavity: underbite, moderate dental tartar Musculoskeletal: BCS = 5/9. Ambulatory x 4, very weak Uro/Perineum: No significant lesions Abd/GI: Soft, non-painful. Splenomegaly. No fluid wave palpated Lymph Nodes: Peripheral lymphadenopathy (submandibular, prescapular, inguinal and popliteal) Neurological: Alert and appropriate. No significant abnormalities Skin: Good hair coat. No ectoparasites seen Mentation: QAR Hydration: ~5% dehydration

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

**Urinary System**

The urinary bladder, trigone, and cystourethral junction exhibited normal thickness and tone. Anechoic urine was present in the lumen with no uroliths or sediment. The ureteral papillae were normal. The ureters were not visible which is normal. No evidence of inflammatory or neoplastic changes was noted.

Medial iliac lymph nodes were present. These lymph nodes were homogenous, mildly hypoechoic and smoothly margined. A normal width: length ratio was maintained (<0.5). Evidence of perilymphatic inflammation was evident. An example of lymph node size was 2.0 cm x 0.5 cm.

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 3.5 cm in length.



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***Adrenal Glands***

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The left adrenal gland was uniform in size and contour with a uniformly hypoechoic parenchyma. The left adrenal gland measured 0.5 cm width at the caudal pole and 0.32 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 0.32 cm width at the caudal pole.

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***Spleen***

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The spleen exhibited generalized enlargement with a maintained symmetrical to mildly rounded splenic contour and maintained a finely textured homogeneous parenchyma exhibiting generalized decreased parenchyma echogenicity. No splenic masses or nodules were noted. Normal splenic vascularity was present.

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***Liver/ Gallbladder***

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The liver exhibited borderline to mild subjective enlargement. 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. Minor gallbladder wall edema was present. Anechoic content with mild primarily dependent mildly hyperechoic luminal gallbladder debris. The common bile duct was normal.

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***Gastrointestinal***

The visualized gastric walls were sonographically normal. The lumen of the stomach contained mild ingesta and luminal gas most consistent with post prandial presentation without signs of ileus, obstruction or foreign material.

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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.

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***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.

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***Free Abdomen***

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A small pocket of scant peri splenic free fluid was present. Generalized mild hyperechoic mesentery was present. No omental masses were noted.

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**ULTRASONOGRAPHIC FINDINGS**

- Splenomegaly exhibiting uniform decreased parenchyma echogenicity
- Subjective borderline to mild hepatomegaly
- Mild gallbladder wall edema with mild hyperechoic luminal debris



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- Overtly normal gastrointestinal tract with mild gastric ingesta / gas
- Prominent to hypoechoic medial iliac lymphadenopathy
- Scant perisplenic free fluid, generalized mild hyperechoic mesentery

## INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Although sampling is required for further prognosis, a primary concern for infiltrative round cell splenic or potential hepatosplenic neoplasia is warranted with benign etiologies for hepatosplenomegaly including benign hepatopathy, splenic hyperplasia, hematopoiesis, or splenitis possible.

Likewise, the potential for emerging medial iliac neoplastic lymphadenopathy with potential for lymphatic hyperplasia or nonspecific reactive lymphadenitis is possible. No overt evidence of gastrointestinal or intraabdominal foreign body or overt evidence of peritonitis was evident.

Assuming normal clotting status and using a 25-gauge needle, hepatosplenic FNA is recommended for screening cytology and further assessment. Correlation with peripheral lymph node FNA, if not already done, is recommended. Concern for potential multicentric round cell neoplasia, specifically lymphoma, is indicated yet not definitive.

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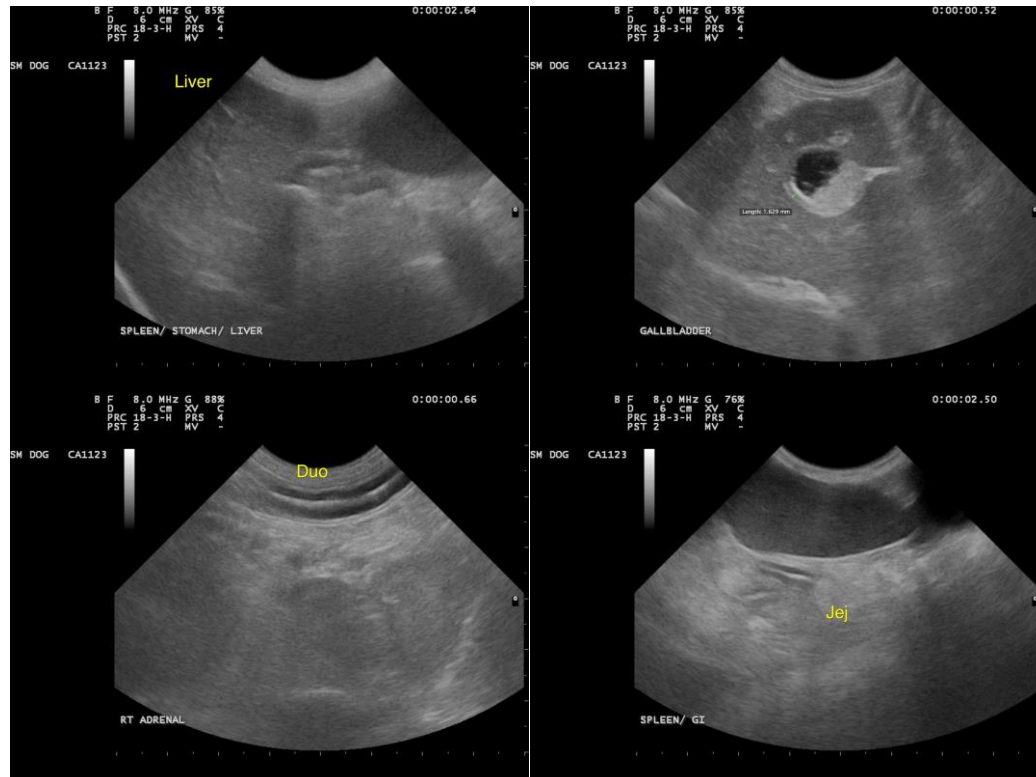
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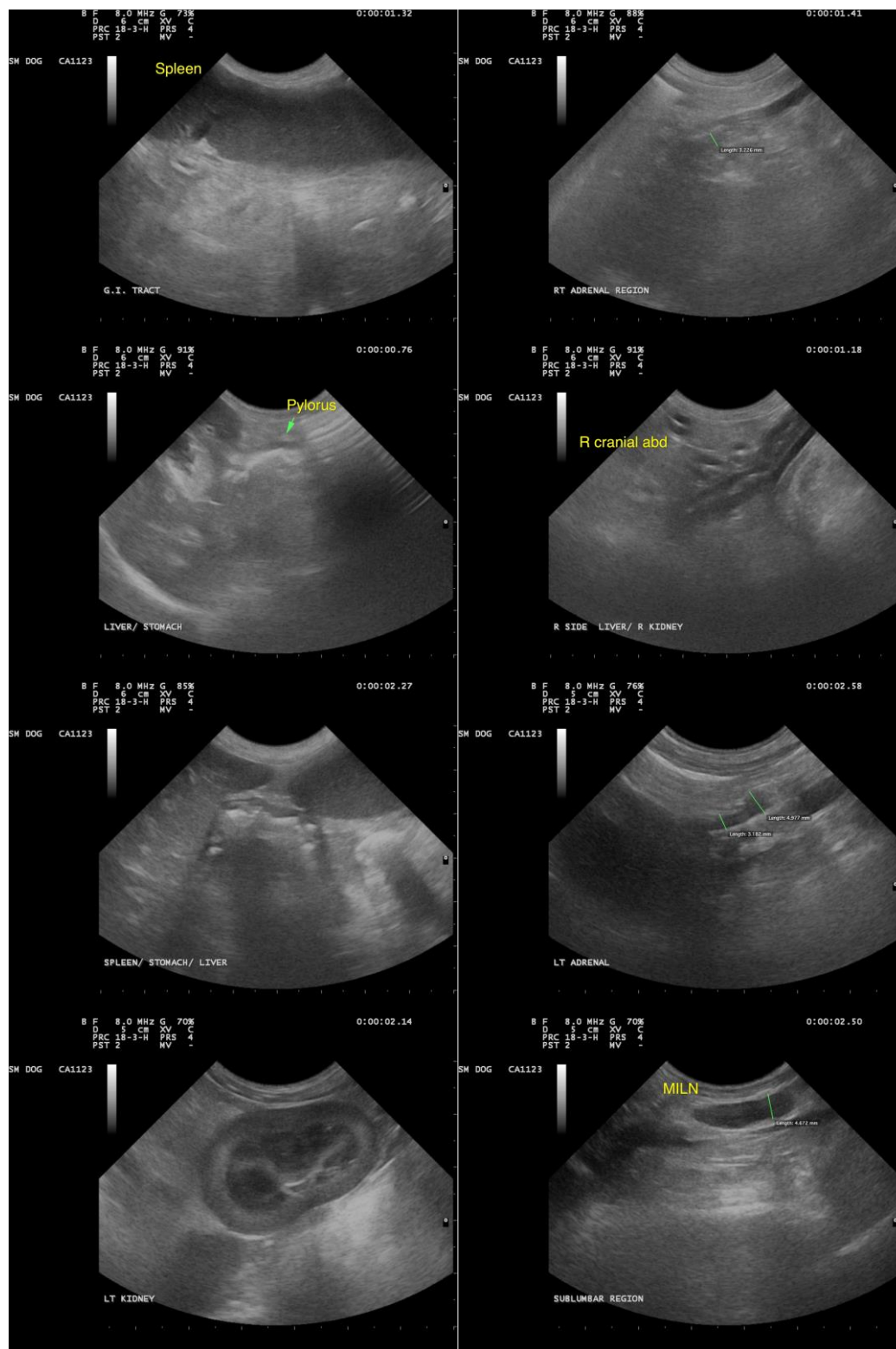
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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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.

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**info@SonoPath.com**

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