



**PATIENT**

Mater Koroleski

**SPECIES**

Canine

**BREED**

Papillon

**SEX**

Male, neutered

**AGE**

5 Yrs. 10 months

**WEIGHT**

6 lbs.

**INTERPRETED BY**

Andrea Nicastro, DVM,  
Diplomate ACVIM  
(Small Animal Internal  
Medicine)

**IMAGING  
PERFORMED BY**

Amy Mayhew

**HOSPITAL NAME**

SVS Imaging Michigan

**REFERRING VET**

Family Pet Practice

**INVOICE**

12911

**DATE**

1/25/22

**PRESENTING CLINICAL SIGNS**

History: Recent history of low protein levels (total protein and albumin) on blood work. Has always been thin. Last week presented for vomiting that has since resolved. No current clinical signs. Maldigestion panel and urine submitted to lab today.

Abnormal PE/Chem/CBC/UA Results: BUN 34.1 (9-29) Ca++ 8.2 (9-12.2) ALBUMIN 2.2 (2.5-4) TP 4.7 (5.5-7.6) GLUCOSE 145 (75-125)

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

*Urinary System*

The urinary bladder, trigone, and pelvic urethra are normal in thickness and the mucosal surface is smooth. The bladder lumen is moderately distended with anechoic urine. No masses, inflammatory changes or calculi are observed. Ureteral papillae and visualized portion of the proximal urethra, visible to a depth of 2 cm, are normal.

The prostate is normal in size (0.82 cm in width) and shape. Parenchyma is homogenous. The prostatic urethra appears normal without evidence of dilation or obstruction.

The left kidney is normal size (3.61 cm in length); normal shape and architecture with smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with normal corticomedullary distinction. There is no evidence of pyelectasia, nephroliths, infarcts or hydronephrosis. Renal vasculature is normal.

The right kidney is normal size (3.72 cm in length); normal shape and architecture with smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with normal corticomedullary distinction. There is no evidence of pyelectasia, nephroliths, infarcts or hydronephrosis. Renal vasculature is normal.

*Adrenal Glands*

The left adrenal gland is normal size (0.36 cm at cranial pole) (0.31 cm at caudal pole) (1.72 cm in length); normal shape; homogenous parenchyma. The glandular echogenicity and detail are unremarkable. Capsule, cortex, and medullary definition are normal. The phrenicoabdominal vein and surrounding vasculature are normal.

The right adrenal gland is normal size (0.35 cm at cranial pole) (0.36 cm at caudal pole) (1.84 cm in length); normal shape; homogenous parenchyma. The glandular echogenicity and detail are unremarkable. Capsule, cortex, and medullary definition are normal. The phrenicoabdominal vein and surrounding vasculature are normal.

*Spleen*

The spleen is normal in size (0.65 cm in width at the level of the hilus) with a normal capsular contour. There is appropriate echogenicity and echotexture. No focal lesions are observed. Splenic vasculature is normal.

*Liver*

The liver is subjectively normal in size with normal contours and structure. There is appropriate echogenicity and echotexture. No overt structural evidence of inflammatory, infiltrative or regenerative pathology is evident. Vascular and biliary tracts are of normal volume with no evidence of congestion. No pathological hepatic lymphadenopathy observed. The gall bladder lumen is moderately



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distended. The wall is thin and smooth. Luminal contents are anechoic. The cystic and common bile ducts are normal/not seen.

***Gastrointestinal***

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The stomach and intestine are free of stasis and exhibit normal peristaltic activity. The gastric lumen is not distended. The gastric wall and pylorus are normal in thickness with a normal layering pattern. The pyloric outflow tract is patent. The small intestinal lumen is not dilated. The small intestinal wall thickness is normal with a normal layering pattern and appropriate mural detail. Discreet masses are not identified. The colonic wall is normal. No obstructive disease is noted.

**BREED**

Papillon

***Pancreas***

The region of the pancreas is isoechoic relative to surrounding omental fat. No obvious parenchymal abnormalities are observed. There is no evidence of regional inflammation or effusion.

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***Free Abdomen***

Trace free fluid is observed. The abdominal lymph nodes are normal/not visible.

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**ULTRASONOGRAPHIC FINDINGS**

**WEIGHT**

6 lbs.

The trace ascites is likely secondary to low oncotic pressure. An obvious cause for the patient's hypoproteinemia is not identified in this study. Considerations include GI loss, renal loss or hepatic dysfunction.

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**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

- Pre and post prandial serum bile acids are recommended to assess for hepatic dysfunction.
- A UPC is recommended to assess for proteinuria.
- A resting cortisol level to screen for hypoadrenocorticism. If resting cortisol level is < 2.0 mcg/dL, an ACTH stimulation test is recommended.
- If the above diagnostics are inconclusive, consider further workup for a protein losing enteropathy (i.e., malabsorption panel, fecal evaluation of ova and Giardia, endoscopic or surgical gastrointestinal biopsies).
- If the patient is undergo anesthesia, three-view thoracic radiographs are recommended as hypoalbuminemia can cause third spacing of fluids resulting in pleural effusion.

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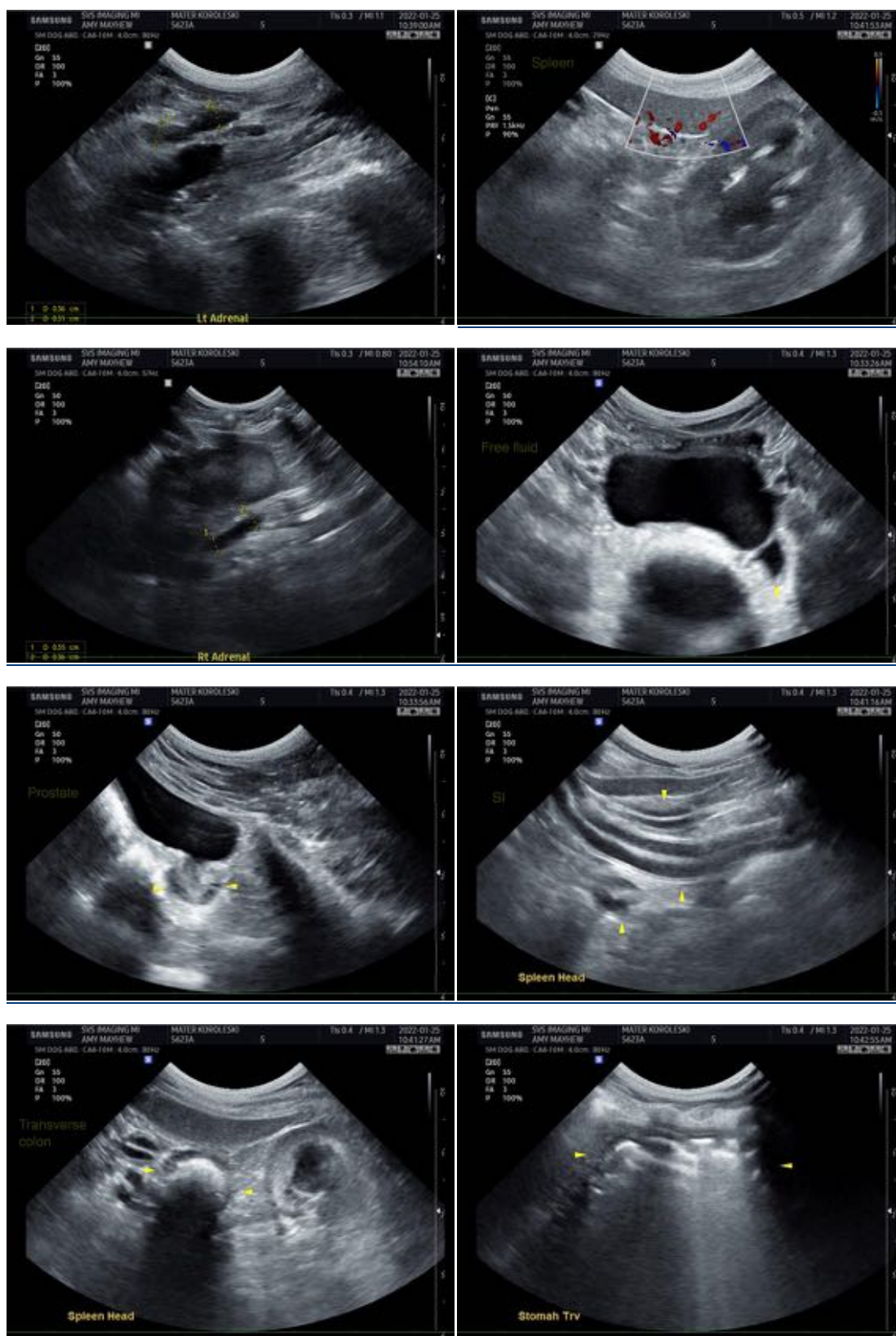
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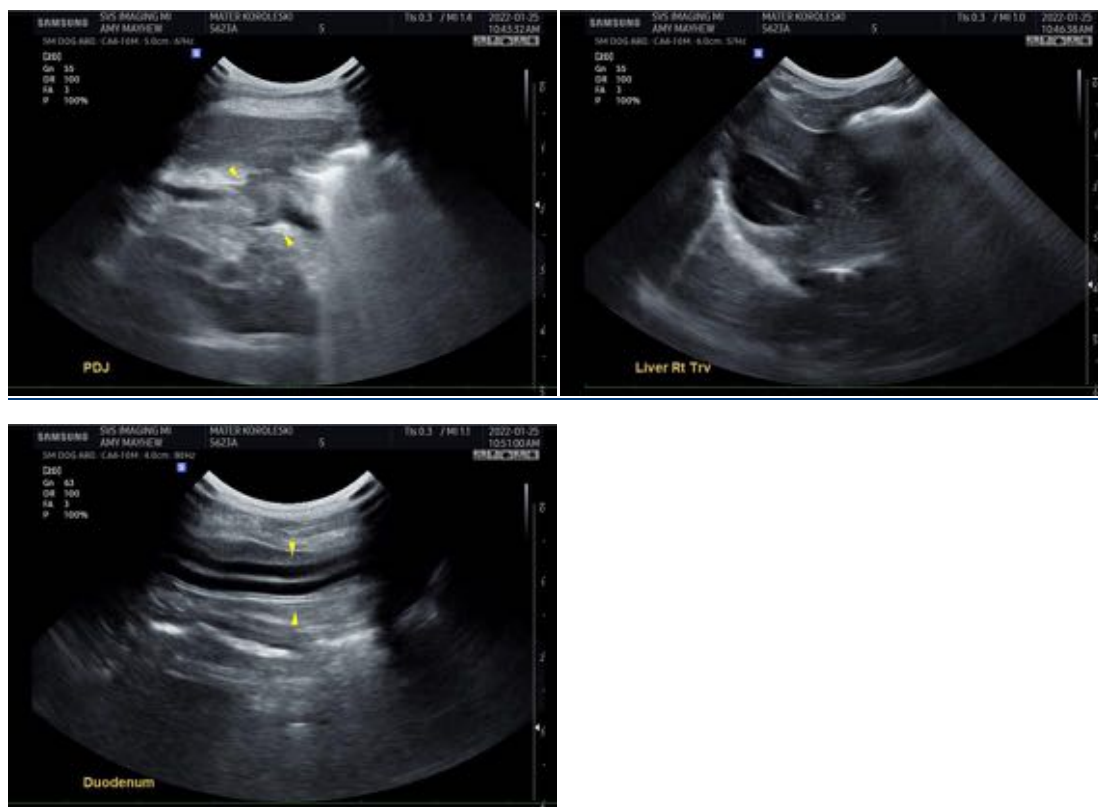
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

Andrea Nicastro, DVM, Diplomate ACVIM (*Small Animal Internal Medicine*)

Andrea.nicastro@sonopath.com