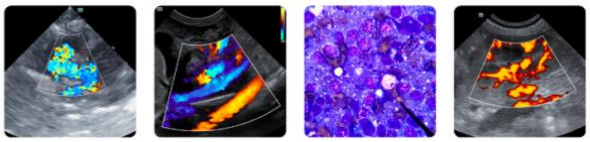




**PATIENT**

Sammy Martino

**SPECIES**

Canine

**BREED**

Lhasa Apso

**SEX**

Neutered Male

**AGE**

12 kg

**WEIGHT**

15

**INTERPRETED BY**

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

**IMAGING PERFORMED BY**

Natalia Franco

**HOSPITAL NAME**

Eagleson VC

**REFERRING VET**

Mohamed Ammar

**INVOICE**

22403

**DATE**

1-19-26

## PRESENTING CLINICAL SIGNS

- Patient presented 2 days ago for pain, lethargy, vomiting, anorexic.
- Given Metacam the morning of presentation.
- Patient admitted for supportive care.
- AUS recommended for further investigations of azotemia: possible hydronephrosis, obstruction, neoplasia, other kidney abnormalities.

Abnormal PE/Chem/CBC/UA Results: Initial BW showed azotemia, inflammatory leukogram and borderline anemia. Normal Spec CPL. USG 1.030; bacteriuria, elevated WBC and RBC. Culture pending. Witness Lepto Test: Negative. 4dx: positive for Anaplasma Rads: Bladder and kidney stones. Azotemia slowly improving with hospitalization but not normalized yet. Normal Urine production.

## ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

### *Urinary System*

The urinary bladder is is mildly-to-moderately distended. The wall is diffusely thickened (up to 0.56 cm) and irregular. There is a structure that has the appearance of a Foley catheter in the region of the cystourethral junction. Cystic calculi and sand are observed. The mesentery surrounding the bladder is hyperechoic.

The region of the prostate is not visualized due to its pelvic location.

The left kidney subjectively appears enlarged (5.69 cm in length) with swollen/slightly irregular peripheral contours. The cortes is variably thickened, with poor corticomedullary distinction. Small cortical cysts are seen. Pinpoint hyperechoic-to-mineralized foci are also seen within the cortex. Moderate pyelectasia is present (0.66 cm in the longitudinal plane). Echogenic debris is observed within the renal pelvis. Several nephroliths are visualized. Proximal hydroureter is suspected (0.55 cm in diameter). Renal vasculature is normal. Renal vasculature is normal. The mesentery surrounding the kidney is hyperechoic.

The right kidney subjectively appears enlarged (5.58 cm in length) with swollen/slightly) with swollen/slightly irregular peripheral contours. The cortes is variably thickened, with poor corticomedullary distinction. Small cortical cysts are seen. Pinpoint hyperechoic-to-mineralized foci are also seen within the cortex. Moderate pyelectasia is present (0.65 cm in the longitudinal plane). Echogenic debris is observed within the renal pelvis. Several nephroliths are visualized. There is no obvious evidence of hydroureter. Renal vasculature is normal. Renal vasculature is normal. The mesentery surrounding the kidney is hyperechoic.

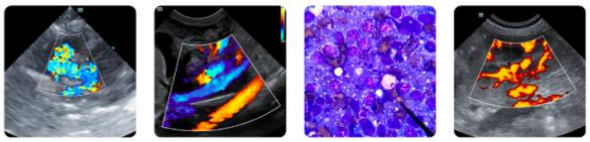
### *Adrenal Glands*

The left adrenal gland is enlarged (0.60 cm at cranial pole) (0.85 cm at caudal pole) with a normal shape and 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 enlarged (1.15 cm at cranial pole) (0.74 cm at caudal pole) with a normal shape and 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 overall normal in size (1.73 cm in width at the level of the hilus). A 2.9 x 1.9 cm slightly expansile, heterogenous cavitated mass is observed just distal to the hilus. In addition, at least one ill-defined, hypoechoic nodule (measuring 0.78 cm) is also seen at the lateral aspect. The remaining parenchyma is subtly mottled in appearance. Splenic vasculature appears normal with no evidence of thrombosis.





**PATIENT**

Sammy Martino

**SPECIES**

Canine

**BREED**

Lhasa Apso

**SEX**

Neutered Male

**AGE**

12 kg

**WEIGHT**

15

**INTERPRETED BY**

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

**IMAGING PERFORMED BY**

Natalia Franco

**HOSPITAL NAME**

Eagleson VC

**REFERRING VET**

Mohamed Ammar

**INVOICE**

22403

**DATE**

1-19-26

***Liver***

The liver is subjectively prominent-in-size, with slightly irregular peripheral contours. The parenchyma is isoechoic relative to the spleen, and subtly heterogenous in appearance. No distinct focal lesions are observed. Hepatic vasculature and intrahepatic biliary tracts are of normal volume with no evidence of congestion.

The gallbladder is of normal contours and contains some dependent echogenic debris. The wall is normal in thickness. No choleliths are observed. The cystic and common bile ducts are normal/not seen.

***Gastrointestinal***

The gastric lumen is minimally to mildly fluid-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. A few small intestinal segments are mildly-plicated. The small intestinal wall is normal in thickness with a normal layering pattern and appropriate mural detail. Discreet masses are not identified. The colonic wall is normal. There is no evidence of an obstructive pattern.

***Pancreas***

The right limb of the pancreas is visible with normal curvilinear peripheral contours. The parenchyma is slightly hypoechoic relative to surrounding omental fat and slightly mottled in appearance. The pancreatic duct is visible but not overtly dilated. There is no evidence of peripancreatic inflammation or effusion.

***Lymph Nodes***

The abdominal lymph nodes are normal/not visible.

***Free Abdomen***

The peritoneal cavity is normal. There is no evidence of inflammation or effusion.

## ULTRASONOGRAPHIC FINDINGS

### Primary Findings

- Cystic calculi with bladder wall changes consistent with cystitis. Is there a Foley catheter in this patient?
- Bilateral nonspecific chronic renal changes with nephrocalcinosis, bilateral pyelectasia, and suspected left hydroureter. The pyelectasia may be secondary to pyelonephritis, parenchymal remodeling, PU/PD (if applicable), ureteral obstruction (left side), fluid therapy (if applicable), or some combination thereof. The left hyrdroureter is suggestion of ureteral obstruction (although none is seen). Possible causes include ureteral stone, structure, tumor, other.
- There is evidence of diffuse retroperitonitis, likely secondary to urinary tract pathology.
- Splenic mass. Neoplasia (i.e., hemangioma, hemangiosarcoma, round cell tumor) is suspected. However, a benign process (i.e., focus of lymphoid hyperplasia cannot be excluded).

### Secondary Findings

- Bilateral adrenomegaly
- The hepatic changes are nonspecific and could be secondary to inflammatory disease (i.e., cholangiohepatitis, chronic hepatitis), Leptospirosis, hepatotoxicosis, infiltrative neoplasia (i.e.,

**PATIENT**

Sammy Martino

**SPECIES**

Canine

**BREED**

Lhasa Apso

**SEX**

Neutered Male

**AGE**

12 kg

**WEIGHT**

15

**INTERPRETED BY**

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

**IMAGING PERFORMED BY**

Natalia Franco

**HOSPITAL NAME**

Eagleson VC

**REFERRING VET**

Mohamed Ammar

**INVOICE**

22403

**DATE**

1-19-26

lymphoma), vacuolar hepatopathy, regenerative nodular hyperplasia, other hepatopathy, or some combination thereof.

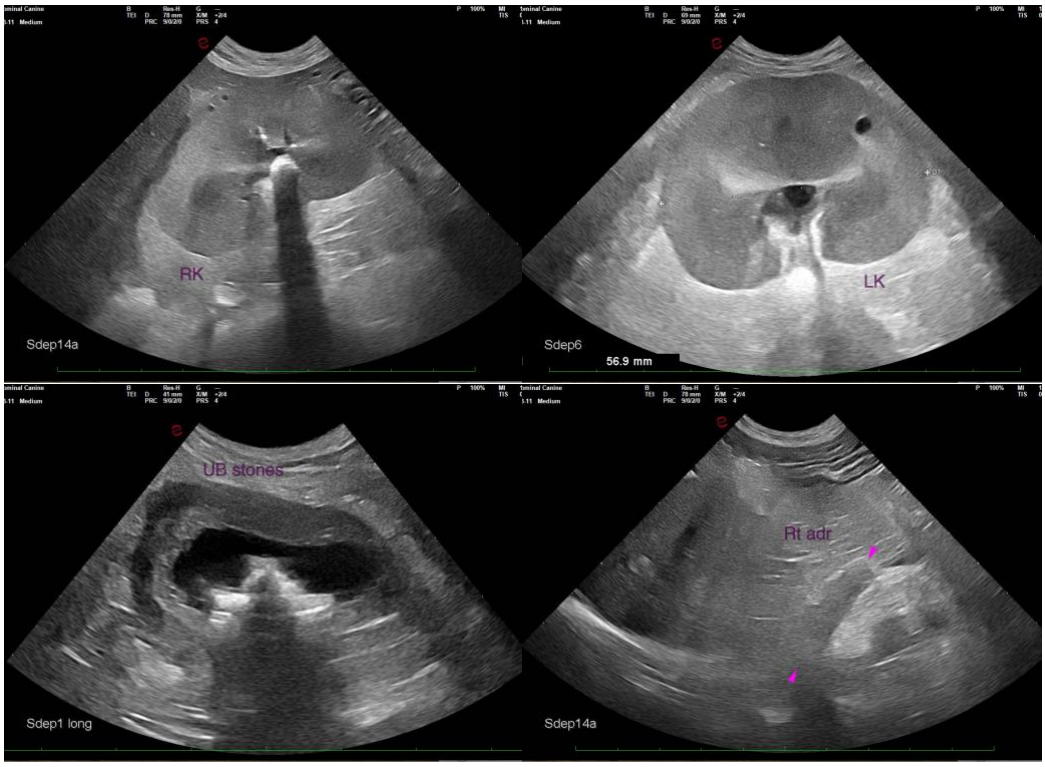
- The pancreatic changes are most consistent with age-related parenchymal remodeling, potentially secondary to a prior inflammatory episode, early fibrosis or chronic pancreatitis.

## INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

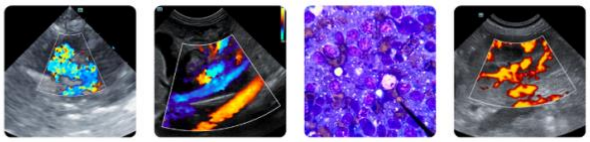
- A urine culture and sensitivity is recommended. While awaiting test results, IV fluid diuresis, broad-spectrum antibiotic therapy, and to her symptomatic measures are recommended, with close monitoring of the patient's renal values to assess progression of the azotemia. A baseline blood pressure measurement is also recommended. Consider an abdominal CT scan to further evaluate for possible causes of left hydroureter.

- Regarding the splenic mass, consider the following:

1. Three-view thoracic radiographs are recommended to assess for pulmonary metastases
2. Splenectomy with submission of the spleen for histopathology once the patient's current clinical condition is stablized. If surgery is pursued, liver biopsies should also be obtained at the time of surgery to assess for metastatic disease.



SonoPath
FOSTERING THE ART OF VETERINARY MEDICINE™



Clinical Sonography & Telecytology
Educational Teleconsultation Services™

SonoPath.com info@sonopath.com 1.800.838.4268

**PATIENT**

Sammy Martino

**SPECIES**

Canine

**BREED**

Lhasa Apso

**SEX**

Neutered Male

**AGE**

12 kg

**WEIGHT**

15

**INTERPRETED BY**

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

**IMAGING PERFORMED BY**

Natalia Franco

**HOSPITAL NAME**

Eagleson VC

**REFERRING VET**

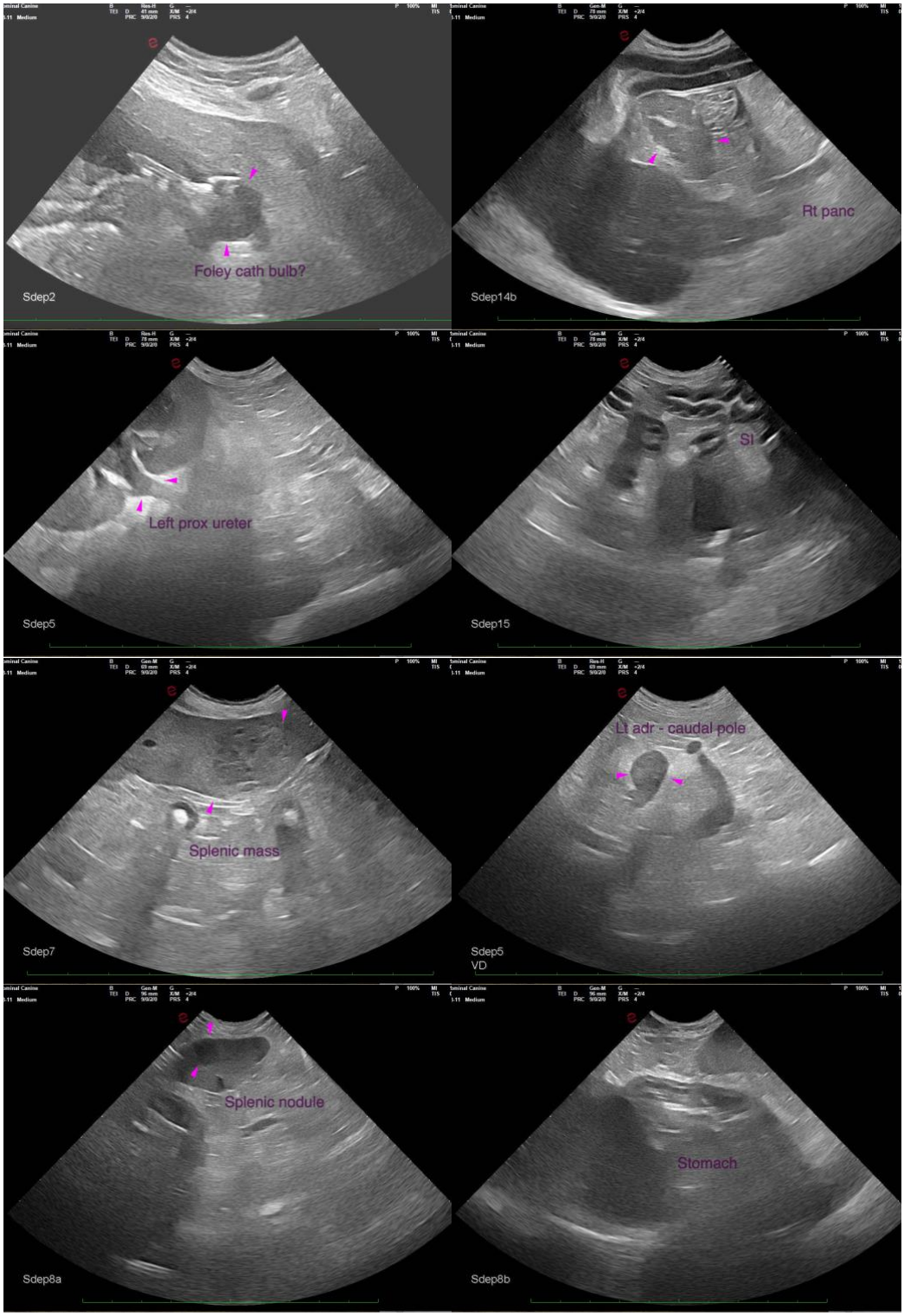
Mohamed Ammar

**INVOICE**

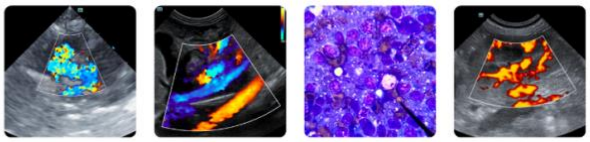
22403

**DATE**

1-19-26



SonoPath
FOSTERING THE ART OF VETERINARY MEDICINE™



Clinical Sonography & Telecytology
Educational Teleconsultation Services™

SonoPath.com | info@sonopath.com | 1.800.838.4268

**PATIENT**

Sammy Martino

**SPECIES**

Canine

**BREED**

Lhasa Apso

**SEX**

Neutered Male

**AGE**

12 kg

**WEIGHT**

15

**INTERPRETED BY**

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

**IMAGING PERFORMED BY**

Natalia Franco

**HOSPITAL NAME**

Eagleson VC

**REFERRING VET**

Mohamed Ammar

**INVOICE**

22403

**DATE**

1-19-26


**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**, MPH, DVM, Diplomate DACVIM (Small Animal Internal Medicine)
info@SonoPath.com