



**PATIENT**

Ruby Siegel

**PRESENTING CLINICAL SIGNS**

History: Several year history of ALP elevation / suspected benign hepatopathy. Recent urinary accidents.  
Rads clear/ no stones. Current meds: Ursodiol, trazodone PRN  
Abnormal PE/Chem/CBC/UA Results: ALP 280. UA: 2+ CaOx SG: 1.036

**SPECIES**

Canine

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

*Urinary System*

**BREED**

Schnauzer

The urinary bladder and visible portion of the pelvic urethra are normal for the degree of luminal distension. The urine is anechoic with no evidence of debris. Cystic calculi and discrete masses are not observed. The region of the trigone and the visible portion of the proximal urethra are normal.

**SEX**

Female, spayed

The left kidney is normal size (5.67 cm in length); normal shape and architecture with smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with minimal to mild loss of corticomedullary distinction. Several nephroliths are visualized. There is no evidence of pyelectasia, infarcts or hydroureter. Renal vasculature is normal.

**AGE**

11 Yrs.

The right kidney is normal size (4.44 cm in length); normal shape and architecture with smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with minimal to mild loss of corticomedullary distinction. Several nephroliths are visualized. There is no evidence of pyelectasia, infarcts or hydroureter. Renal vasculature is normal.

**WEIGHT**

18.5 lbs.

*Adrenal Glands*

The left adrenal gland is normal size (0.46 cm at cranial pole) (0.47 cm at caudal pole) (1.60 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.

**INTERPRETED BY**

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

The right adrenal gland is normal size (0.91 cm at cranial pole) (0.48 cm at caudal pole) (1.71 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.

**IMAGING PERFORMED BY**

Jessica Miller

*Spleen*

The spleen is normal in size (1.62 cm in width at the level of the hilus) with a normal capsular contour. There is appropriate echogenicity and echotexture. A few small hyperechoic nodules are observed. Splenic vasculature is normal.

**HOSPITAL NAME**

Millburn VH

*Liver*

The liver is subjectively prominent in size with swollen peripheral contours. The parenchyma is isoechoic relative to the spleen. Numerous varying size ill-defined hypoechoic nodules are observed throughout the parenchyma. In addition, 2 larger hypoechoic nodules/masses are observed on the right side, one measuring 3.06 x 1.95, the other measuring 2.69 x 1.91 cm. Neither lesion causes capsular expansion. Vascular and biliary tracts are of normal volume with no evidence of congestion. The gall bladder lumen is moderately distended. The wall is thin and smooth. A moderate amount of mostly gravity dependent-echogenic debris is observed within the lumen. The cystic and common bile ducts are normal/not seen.

**REFERRING VET**

Dr. Turowsky

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12076

*Gastrointestinal*

**DATE**

9/14/21



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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.

**SPECIES**

Canine

**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.

**BREED**

Schnauzer

**Free Abdomen**

The peritoneal cavity is normal. There is no evidence of inflammation or effusion. The abdominal lymph nodes are normal/not visible.

**SEX**

Female, spayed

**Other**

A brief echocardiogram reveals no evidence of pericardial effusion or obvious right atrial/auricular mass.

**AGE**

11 Yrs.

**ULTRASONOGRAPHIC FINDINGS**

**WEIGHT**

18.5 lbs.

**Primary Findings:**

- The hepatic nodules could be consistent with benign pathology (i.e., regenerative nodular hyperplasia). Alternatively, infiltrative neoplasia (i.e., round cell tumor) may be present.

**Secondary Findings:**

- Bilateral age-related renal changes with non-obstructive nephroliths.
- Gallbladder debris- incidental.

**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

- Fine needle aspirates of the liver are recommended with particular attention to the hypoechoic nodules. 25-gauge needles should be used for aspiration. Clotting status should be assessed prior to the procedure. If a more conservative approach is desired, consider serial monitoring (i.e., every 3-4 months) of the patient's liver values as well as periodic sonograms to assess for progression.
- Three-view thoracic radiographs are recommended to assess cardiopulmonary status.
- Given the recent urinary accidents, a urinalysis with culture and sensitivity should also be considered.

**INTERPRETED BY**

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

**IMAGING PERFORMED BY**

Jessica Miller

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Schnauzer

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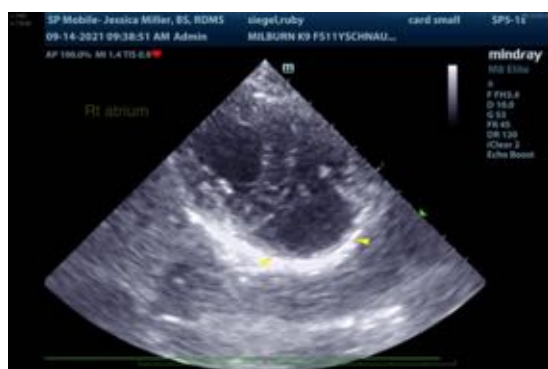
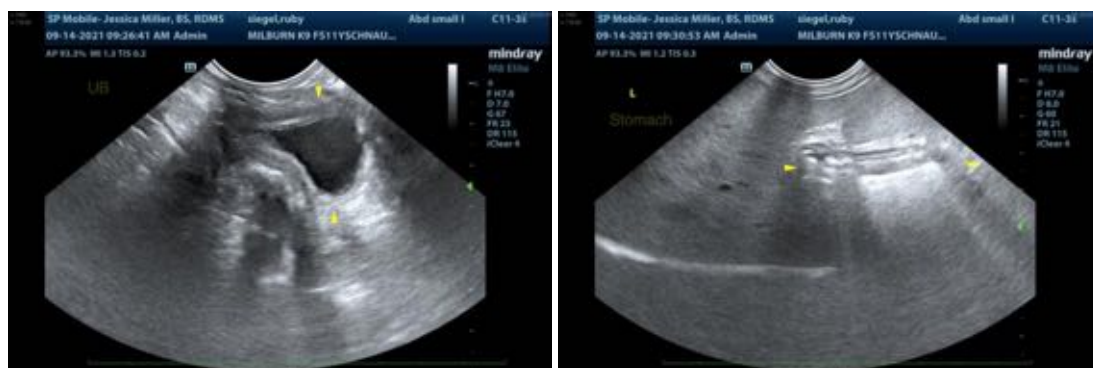
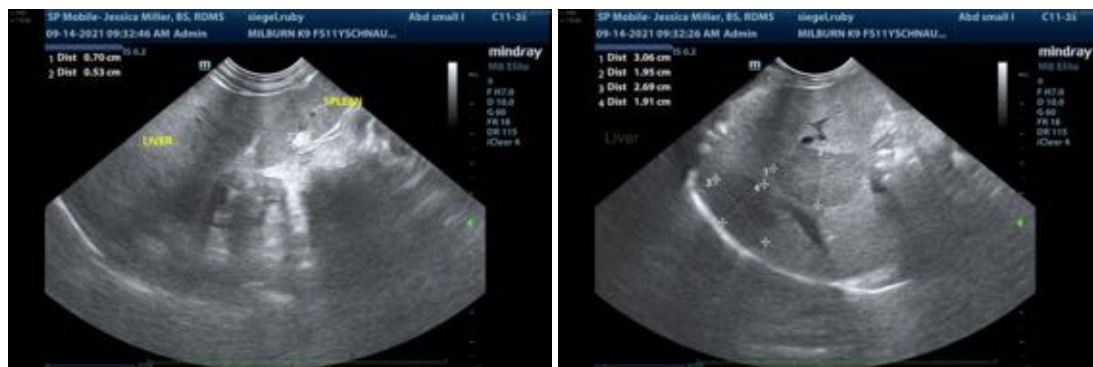
Dr. Turowsky

**INVOICE**

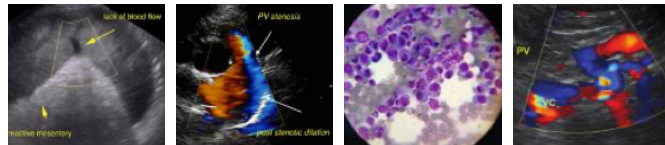
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The information and recommendations provided are based on the images presented by the referring



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**veterinarian. 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.

**SPECIES**

Canine

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

Andrea.nicastro@sonopath.com

**BREED**

Schnauzer

**SEX**

Female, spayed

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**WEIGHT**

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