



**PATIENT**

Otto Fenara

**SPECIES**

Canine

**BREED**

Schnauzer

**SEX**

Neutered Male

**AGE**

13 Years

**WEIGHT**

32 Lbs.

**INTERPRETED BY**

Andrea Nicastro, DMV,  
Diplomate DACVIM  
(Small Animal  
Internal Medicine)

**IMAGING  
PERFORMED BY**

Jessica Miller

**HOSPITAL NAME**

Newton VH

**REFERRING VET**

Dr. Wyman-Greenwald

**INVOICE**

13272

**DATE**

1/5/22

**PRESENTING CLINICAL SIGNS**

History: Elevated liver enzymes  
Abnormal PE/Chem/CBC/UA Results: ALT 140, ALKP 1557

**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 distended. A scant amount of suspended echogenic debris is observed within the lumen. 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 (1.01 cm in width) with a normal shape and smooth peripheral contours. The parenchyma is subtly heterogeneous. No focal lesions are observed. The prostatic urethra is not overtly dilated.

The left kidney presented normal size (6.14 cm in length); normal shape and architecture with smooth peripheral margins. The cortex is mildly thickened and there is mild to moderate loss of corticomedullary distinction. Hyperechoic shadowing diverticular foci are visualized. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

The right kidney presented normal size (5.99 cm in length); normal shape and architecture with smooth peripheral margins. The cortex is mildly thickened and there is mild to moderate loss of corticomedullary distinction. Several nonobstructive nephroliths are visualized. There is no evidence of pyelectasia, infarcts or hydroureter. Renal vasculature is normal.

**Adrenal Glands**

The left adrenal gland is normal size (0.66 cm at cranial pole) (0.61 cm at caudal pole) (2.14 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 (1.09 cm at cranial pole) (0.58 cm at caudal pole) (2.16 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 (1.98 cm in width at the level of the hilus) with a normal capsular contour. A light micronodular pattern is present throughout the parenchyma. No focal lesions are observed. Splenic vasculature is normal.

**Liver**

The liver is subjectively enlarged with swollen peripheral contours. The parenchyma is isoechoic relative to the spleen and diffusely heterogeneous in appearance with several ill-defined hypoechoic nodules throughout the organ. No distinct focal lesions are observed. Hepatic vasculature and intrahepatic biliary tracts are of normal volume with no evidence of congestion. The portal vein to caudal vena cava ratio is approximately 1:1. An ultrasound guided fine needle aspirate of the liver was performed during the study without incident.



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

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**Gastrointestinal**

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 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 or overt infiltrative disease is noted.

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**Pancreas**

The right limb of the pancreas is visible with normal curvilinear peripheral contours. The parenchyma is largely isoechoic 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.

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**Free Abdomen**

There is questionable trace ascites adjacent to the urinary bladder. 1-2 prominent jejunal lymph nodes are visualized, the largest measuring 1.94 cm in length.

**WEIGHT**

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**ULTRASONOGRAPHIC FINDINGS**

**Primary Findings**

- The diffuse hepatic changes are non-specific and could be consistent with vacuolar hepatopathy, regenerative nodular hyperplasia, and/or age-related remodeling. Inflammatory and infiltrative disease are considered unlikely.
- Gallbladder debris- incidental

**Secondary Findings**

- The pancreatic changes are most consistent with age-related parenchymal remodeling, potentially secondary to a prior inflammatory episode, early fibrosis or chronic pancreatitis.
- The prostate changes are likely secondary to age-related remodeling
- The splenic parenchymal changes trends toward the benign (i.e., lymphoid hyperplasia or extramedullary hematopoiesis) with a lower possibility of emerging neoplasia.
- Bilateral age-related renal changes with right nonobstructive nephrolithiasis and left dystrophic mineralization.
- The lymph node changes are most consistent with reactive lymphadenitis or lymphoid hyperplasia.

**INTERPRETED BY**

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**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

- Further recommendations should be based on hepatic cytology results. If benign, serial monitoring (i.e., every 3-4 months) of the liver values is recommended. If values continue to



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increase, a repeat abdominal ultrasound may be warranted.

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- Consider testing for hyperadrenocorticism with a low-dose dexamethasone suppression test or ACTH stimulation test if clinical signs (i.e., PU/PD) develop in the future.

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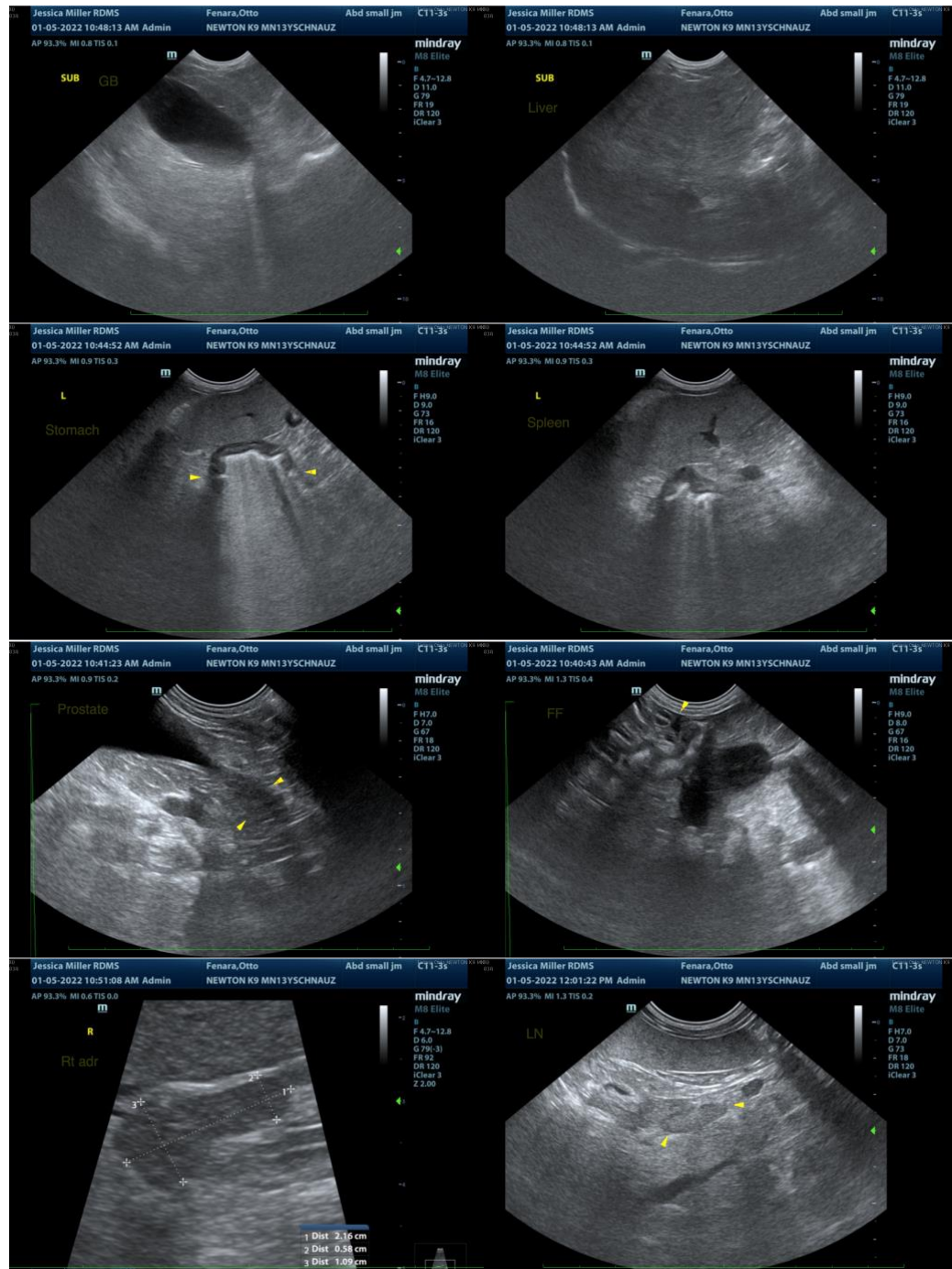
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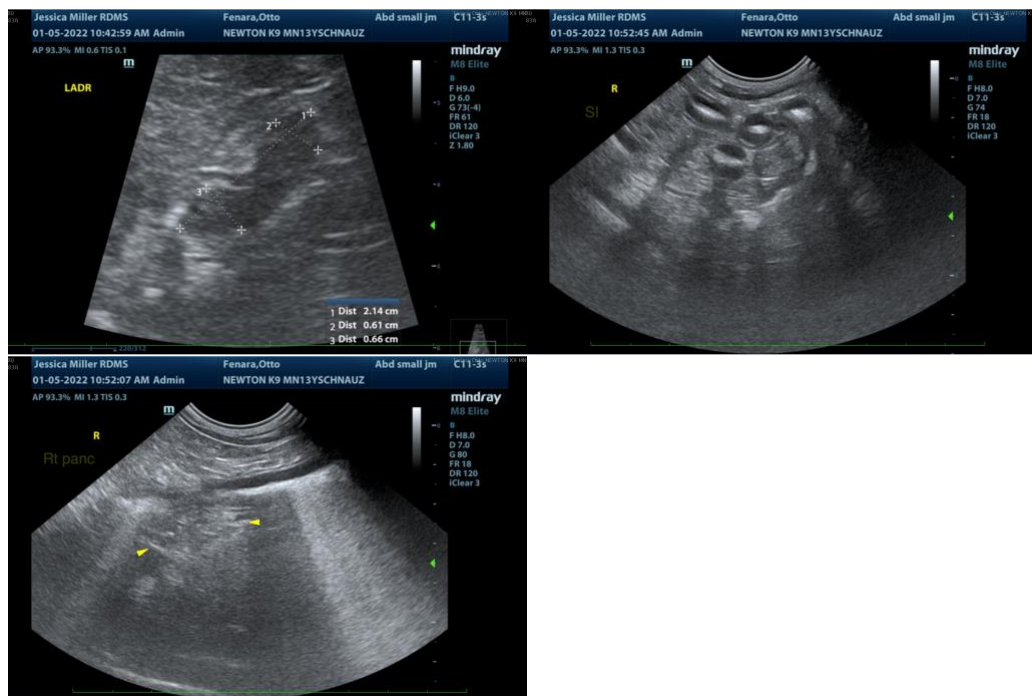
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The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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 DACVIM (Small Animal Internal Medicine)  
info@SonoPath.com