



**PATIENT PRESENTING CLINICAL SIGNS**

Carnal Pozo Polydipsia, polyuria. Lateral x-rays: possible abdominal mass. Current meds: levothyroxine 0.9 SID  
Abnormal PE/Chem/CBC/UA Results: GPT 122, ALK 276, WBC 15.7, T4 <0.5

**SPECIES ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

Canine **Urinary System**

**BREED** Urinary bladder is adequately distended with primarily anechoic contents and occasional echogenic non-shadowing debris. Apical urinary bladder wall is diffusely thick (0.7 cm thick). Mucosa is hyperechoic and irregular. No masses or cystoliths are observed. The trigone and visible pelvic urethra are normal thickness with a smooth mucosal surface.

Mix

**SEX** Prostate is normal in size, echotexture and echogenicity for a neutered male.

Neutered Male Kidneys are overall normal in size and shape with smooth peripheral margination. A normal 1:3 cortex to medulla ratio is maintained. The medulla and cortices are uniform in texture with some mild increased cortical echogenicity and mild loss of corticomedullary distinction, expected in this age patient. There is no evidence of pyelectasia, mineral or infarcts observed. The left kidney measured 8.05 cm. The right kidney measured 7.96 cm. A small cortical cyst is noted in the right kidney.

**AGE** 9 Years

**Adrenal Glands**

**WEIGHT** The right adrenal gland is normal in size (3.7 cm long x 1.0 cm at the cranial pole and 1.0 cm at the caudal pole), shape and contour. Corticomedullary structure is unremarkable. Visible surrounding vasculature appears normal.

90 Pounds

**INTERPRETED BY**

Beth Johnson, DVM  
DACVIM

The left adrenal gland is normal in size (0.68 cm at the cranial pole and 0.78 cm at the caudal pole), shape and contour. Corticomedullary structure is unremarkable. Visible surrounding vasculature appears normal.

**Spleen**

**IMAGING PERFORMED BY**

Jessica Miller

The spleen is subjectively normal in size with a normal smooth capsular contour. Parenchyma is appropriately finely textured and homogenous with normal echogenicity relative to surrounding tissue (hyperechoic to liver). No focal nodules or masses are observed. Splenic vasculature appears normal.

**Liver**

**HOSPITAL NAME**

All Creatures Great & Small Denville

Liver is subjectively enlarged with mildly irregular margins. Parenchyma is heterogenous characterized by multiple poorly defined hypoechoic nodules within otherwise hyperechoic liver parenchyma. A 5.0 cm diameter mixed heterogeneous, partially cavitated mass is present in the right lateral caudal liver. Visible vasculature and biliary tree appear normal without distension or congestion.

**REFERRING VET**

Dr. Mitrovic

Gallbladder is moderately distended with anechoic bile as well as suspended and gravity dependent echogenic debris. The wall is smooth without visible thickening. There is no evidence of cystic or CBD dilation. There is no evidence of effusion or inflammation.

**INVOICE Gastrointestinal**

40098 The visible stomach wall is normal in thickness and layering. The lumen of the stomach is mildly distended with echogenic non-shadowing luminal contents and gas consistent with normal ingesta. There is no evidence of obstruction, foreign material or infiltrative disease. Pyloric outflow tract appears patent.

**DATE**

8/3/22



**PATIENT**

Carnal Pozo

The visible small intestines are normal in wall thickness and layering (canine duodenum < 0.5 cm and feline duodenum < 0.4 cm; other < 0.3 cm). Small intestinal motility appears adequate (1-3 contractions per min). The lumen of the small intestine is empty with no evidence of obstruction, foreign material or infiltrative disease.

**SPECIES**

Canine

The visible colon is normal in wall thickness (< 0.2 cm) and layering. Contents are consistent with normal formed feces and gas.

**Pancreas**

**BREED**

Mix

The pancreatic parenchyma is appropriately isoechoic to surrounding tissue. Visible capsule is smooth and normal in contour. There is no visible pancreatic duct dilation. There is no evidence of active peripancreatic inflammation.

**SEX**

Neutered Male

**Free Abdomen**

There is no evidence of free peritoneal effusion noted in these images.

There is no apparent lymphadenopathy noted in these images.

**AGE**

9 Years

**PRIMARY FINDINGS**

- **Heterogenous Liver** – These changes are most consistent with benign processes such as nodular hyperplasia, steroid (vacuolar) hepatopathy, extramedullary hematopoiesis or possibly chronic inflammatory disease and less commonly infiltrative round cell or metastatic neoplasia.
- **Discrete mixed liver mass** – concerning for infiltrative neoplasia such as sarcoma versus primary hepatocellular carcinoma versus other. Benign lesion cannot be ruled out, but is considered less likely.

**WEIGHT**

90 Pounds

**SECONDARY FINDINGS**

- **Gallbladder debris** - Cholecystic debris is of unknown clinical significance. It can be seen with biliary stasis from fasting or illness. Cholecystic debris is not necessarily related to hepatobiliary disease. Echogenic bile is most commonly an incidental finding in dogs and should be interpreted in combination with clinical signs such as nausea, inappetence, cranial abdominal discomfort and/or laboratory changes such as increased ALP and/or increased Tbili.
- **Chronic Cystitis** - Urinary bladder wall changes are most consistent with chronic cystitis. Infiltrative neoplasia cannot be ruled out but is considered less likely give the location and diffuse nature of the changes.
- Age related kidney changes with a right cortical cyst

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**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

Three view thoracic radiographs are recommended for further assessment of cardio-pulmonary status as well as to further evaluate for any evidence of metastatic disease, if not recently evaluated.

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Given the reported polyuria/polydipsia and urinary bladder changes, a urinalysis and, if indicated based on urinalysis results, urine culture are recommended. If protein is present in an otherwise quiet sediment, protein quantification with a urine protein to creatinine ration is recommended.

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Blood pressure is recommended if not recently evaluated.



**PATIENT**

Carnal Pozo

A fine needle aspirate of the liver mass as well as the diffuse nodular liver changes could be considered if patient's coagulation status is appropriate. However, the mass appears to be resectable. Therefore, if the diffuse nodular change in the liver is benign based on fine needle aspirate, surgical excisional biopsy of the mass would be recommended.

**SPECIES**

Canine

**BREED**

Mix

**SEX**

Neutered Male

**AGE**

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**REFERRING VET**

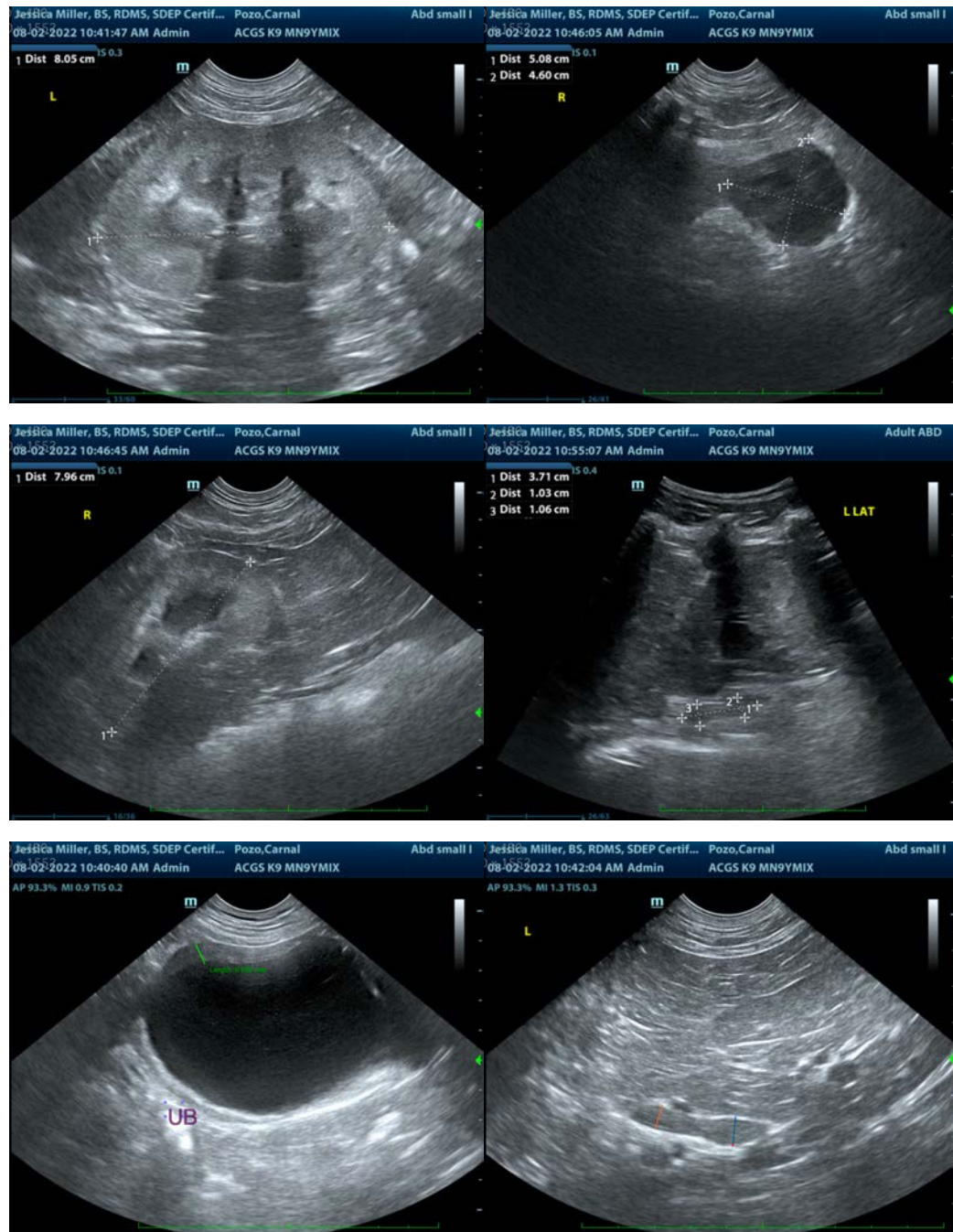
Dr. Mitrovic

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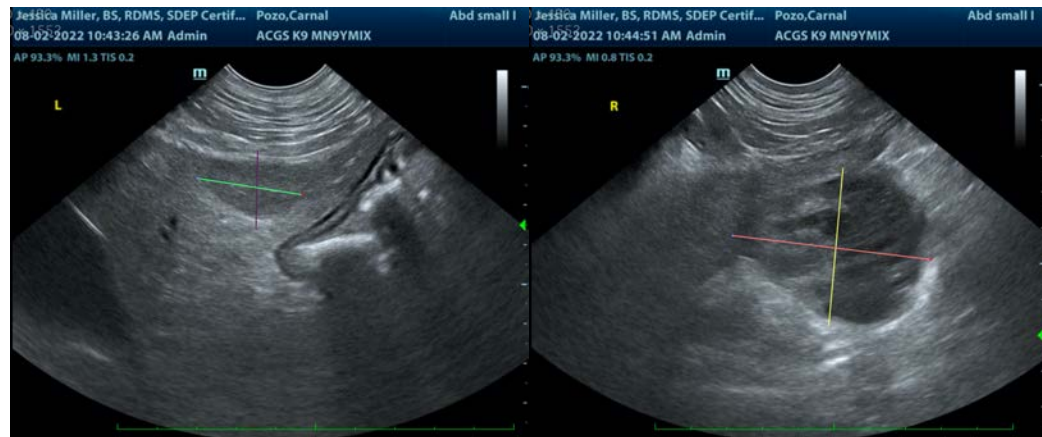
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

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