



**PATIENT**

Onyx Dotter

**SPECIES**

Canine

**BREED**

Dachshund X

**SEX**

Neutered Male

**AGE**

11 Years 8 Months

**WEIGHT**

54.6

**INTERPRETED BY**

Beth Johnson, DVM  
DACVIM

**IMAGING PERFORMED BY**

Jessica Green

**HOSPITAL NAME**

Stanglein Vet Clinic

**REFERRING VET**

Dr. Daniel Hoffman

**INVOICE**

44320

**DATE**

1/18/23

**PRESENTING CLINICAL SIGNS**

Owner reports an approx 1 hour history of "labored breathing", which started after the patient attempted to vomit, fell off of the couch and started shaking/shivering/trembling. At presentation the patient's MM were pale pink (but a PCV/TS= 48%/7.2g/dL; the HR was mildly elevated at approx 150-160BPM, no murmurs or arrhythmias noted; the RR was mildly elevated (RR approx 50-60 BPM), but the respiratory effort seemed fine (the patient was not in any distress); cranial organomegaly vs a mass effect was noted on abdominal palp and verified on abdominal rads.

**Abnormal PE/Chem/CBC/UA Results**

PCV/TS= 48%/7.2g/dL, complete CBC/Chem/T4 results are pending. Rads: in general abdominal serosal detail seems decreased and there is suspected mass effect in the area of the spleen, as well as mild to moderate hepatomegaly; thoracic rads were relatively unremarkable.

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

**Urinary System**

Urinary bladder is adequately distended with primarily anechoic contents and occasional echogenic non-shadowing debris. Apical urinary bladder wall is diffusely thick (0.66 cm). 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.

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

The right kidney is normal in size (6.95 cm), shape and echogenicity. It has smooth peripheral margination. There is a normal 1:3 cortex to medulla ratio with appropriate corticomedullary distinction. There is no evidence of pyelectasia, mineral or infarcts observed.

The left kidney is normal in size (7.28 cm), shape and echogenicity. It has smooth peripheral margination. There is a normal 1:3 cortex to medulla ratio with appropriate corticomedullary distinction. There is no evidence of pyelectasia, mineral or infarcts observed.

**Adrenal Glands**

Adrenal glands are plump/swollen in size. Normal shape and contour are maintained without evidence of capsular invasion. Corticomedullary structure is unremarkable. Visible surrounding vasculature appears normal. The right adrenal gland measures 2.8 cm long x 1.2 cm at the cranial pole and 1.04 cm at the caudal pole. The left adrenal gland measures 3.54 cm long x 0.98 cm at the cranial pole and 1.0 cm at the caudal pole.

**Spleen**

The spleen contains an approximately 6.0 cm in diameter heterogeneous, partially cavitated mass escaping the capsule at the head of the spleen. The mass is surrounded by anechoic free fluid and enhanced hyperechoic mesenteric fat.

**Liver**

Liver is subjectively enlarged with mildly irregular margins. Parenchyma is heterogenous characterized by multiple poorly defined hypoechoic nodules within otherwise hyperechoic liver parenchyma. Visible vasculature and biliary tree appear normal without distension or congestion.

Gallbladder is moderately distended with anechoic bile as well as mild 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.



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**Gastrointestinal**

The stomach wall is normal in thickness (canine < 0.5 cm and feline < 0.4 cm) and layering. The lumen of the stomach is empty with no evidence of obstruction, foreign material or infiltrative disease. Pyloric outflow tract appears patent.

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.

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

**Pancreas**

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.

**Free Abdomen**

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

There is no apparent lymphadenopathy noted in these images.

**PRIMARY FINDINGS**

- **Heterogeneous, cavitated splenic mass and free fluid** – most concerning for infiltrative neoplasia such as sarcoma. Other infiltrative neoplasia including round cell neoplasia can't be ruled out. A benign lesion such as a hematoma, extramedullary hematopoiesis, etc. is also possible but considered less likely, especially in the face of free fluid.
- **Bilateral adrenomegaly** – consistent with adrenal hyperplasia secondary to pituitary dependent hyperadrenocorticism vs stress or normal variant. Interpret in combination with clinical signs of hyperadrenocorticism.
- **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.

**SECONDARY FINDINGS**

- **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.
- **Mild 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.



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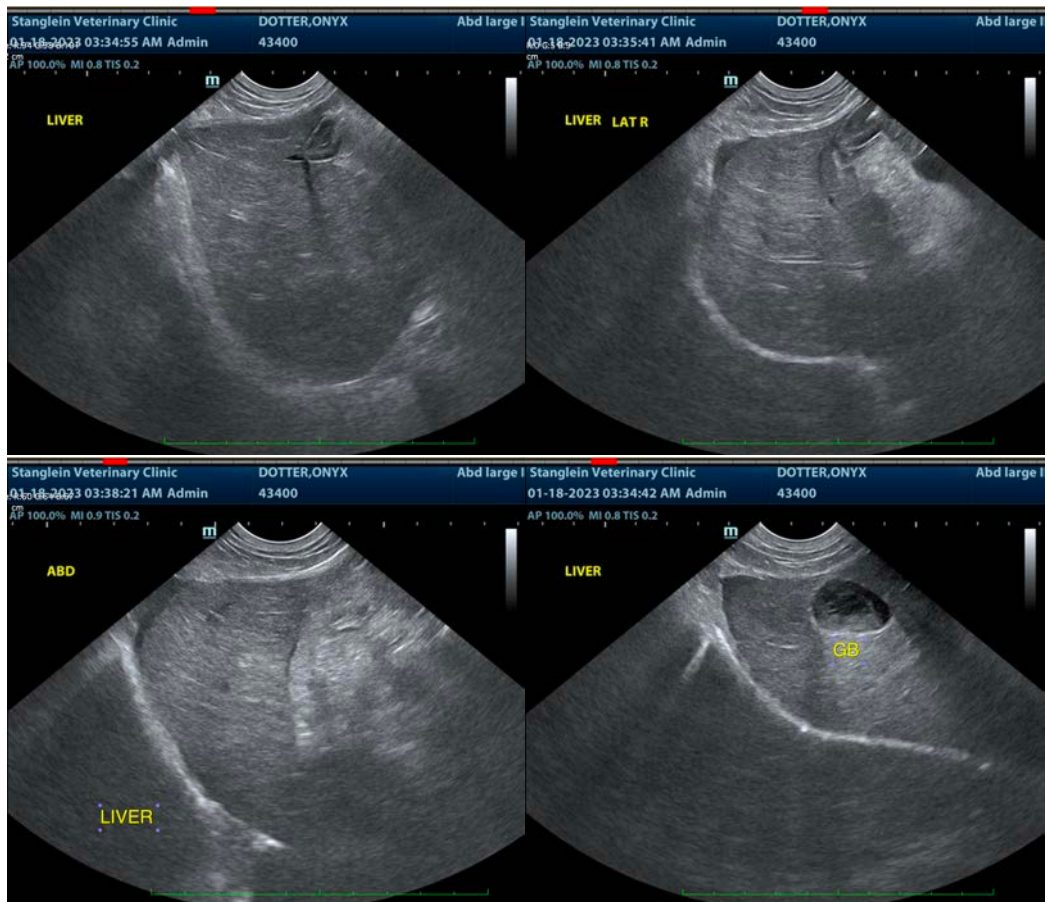
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**INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

Sampling of the free abdominal fluid is recommended if possible and if patient's coagulation status is appropriate, because if this patient has a hemoabdomen, then an exploratory laparotomy for planned splenectomy would be the recommended next step.

If the patient is stable without an ongoing abdominal bleed, a fine needle aspirate of the splenic mass could be considered if patient's coagulation status is appropriate. However, ultimately, given the risk of hemorrhage with a cavitated splenic mass, a splenectomy is recommended regardless of whether the diagnosis is benign or malignant.

Ultimately down the road, given the appearance of this patient's adrenal glands, liver, gallbladder, etc., further evaluation for hyperadrenocorticism may be warranted if/when patient develops clinical signs for hyperadrenocorticism. However, further evaluation is not indicated in the face of more severe illness such as the splenic mass, and is not indicated without supporting clinical signs.





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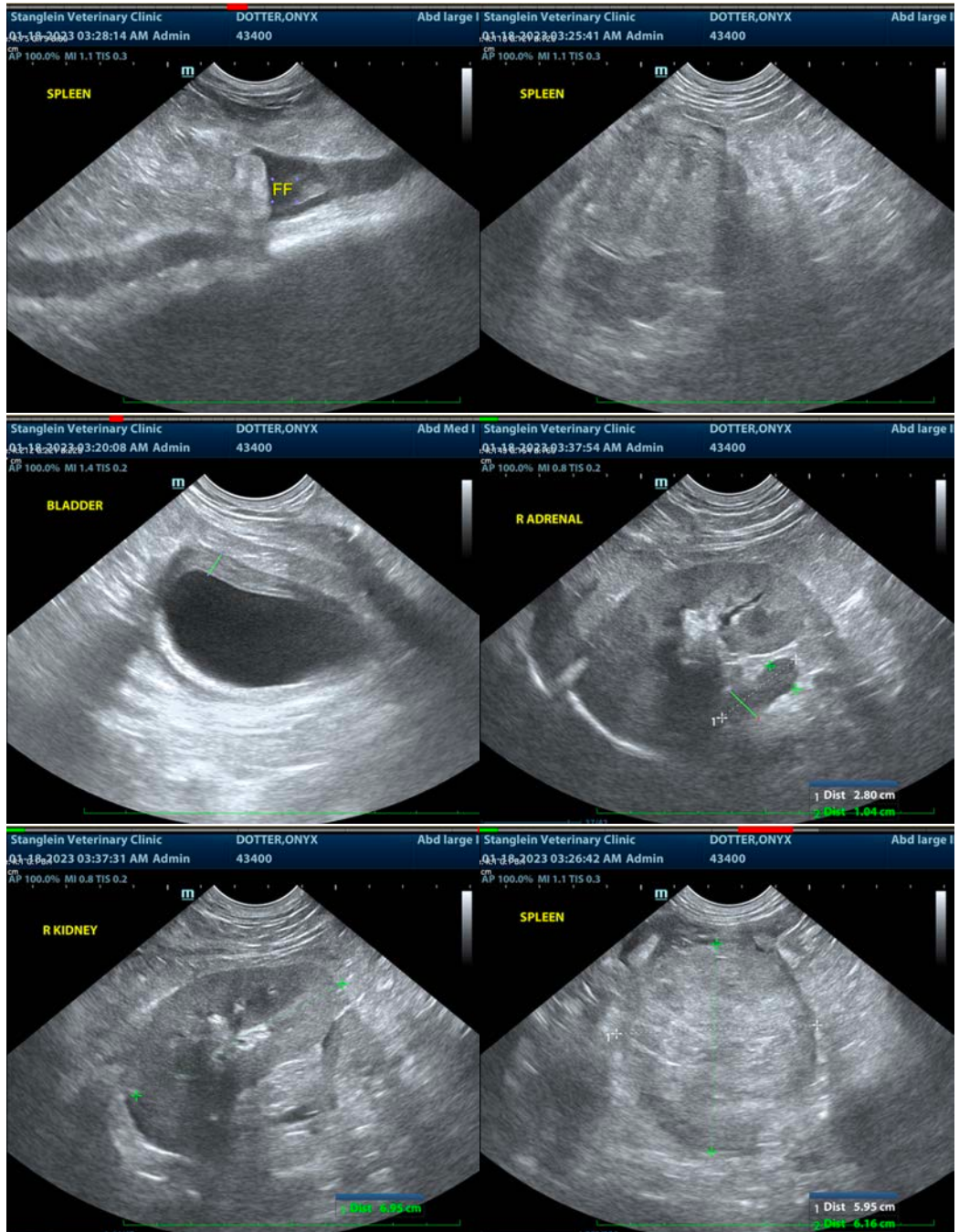
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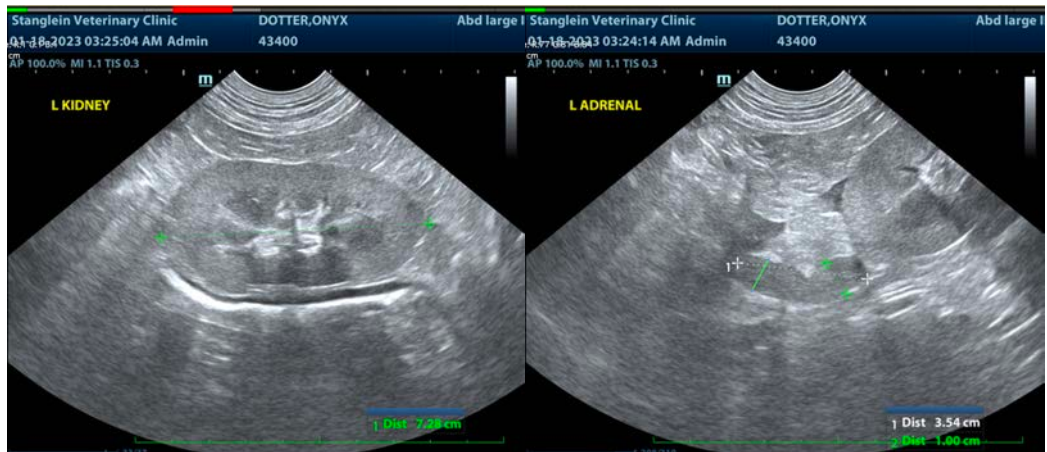
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

**Beth Johnson, DVM, DACVIM**  
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