

DATE PRESENTING CLINICAL SIGNS

4/1/22 3/23/22 PU/PD past 2 weeks, urinary accidents in the house. Good appetite, no v/d.

PATIENT

Louie Lamdin
Current Medications: None.
Lab Results: ALT 200, Ca 11.6, Trig 427, USH 1.015, RBC 11-20.
Date of Previous IntraPet Ultrasound: No previous.
Sedation: Not required to complete full diagnostic ultrasound.
Stat Report: Requested. Heart check declined per request form and Dr. on staff at the time of scan.

SPECIES

Canine

BREED

Terrier X

SEX

Neutered Male

AGE

4/4/08

WEIGHT

34 Pounds

INTERPRETED BY

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(Small Animal Internal
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IMAGING PERFORMED BY

Stephanie Pearce
RDMS, RVT

HOSPITAL NAME

Jacksonville VH

REFERRING VET

Dr. Kablis

INVOICE

36654

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder is moderately distended with anechoic urine. The Bladder wall largely appears normal, but there is a large, irregular mass effect arising from the apical third of the urinary bladder, measuring roughly 2.32 cm. This mass is irregular and somewhat polypoid in appearance. The area of the trigone, ureteral papillae and visible urethra appear relatively free of any abnormal tissue and no calculi are visualized. Findings are most consistent with a primary bladder tumor.

The prostate is normal in size (1.17 cm) and shape for this neutered male dog. The parenchyma is homogenous and the external margins are smooth. The prostatic urethra appears normal with no evidence of irregularity, invasion, mass effect or calculi.

The left kidney has a normal shape and size (5.49 cm) with pyelectasia at 0.54 cm. Overall echogenicity is slightly hyperechoic with poor corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of perinephric inflammation or effusion. There is no evidence of nephroliths, infarcts or hydroureter. Renal vasculature is normal.

The right kidney has a normal shape and size (5.19 cm). Overall echogenicity is slightly hyperechoic with poor corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of perinephric inflammation or effusion. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

Adrenal Glands

The left adrenal gland is normal in size measuring 0.81 cm at the caudal pole. It is observed in its normal position cranial to the left renal artery. It is normal in appearance (uniformly hypoechoic) and shape with no evidence of a mass effect.

The right adrenal gland is normal in size measuring 0.66 cm at the caudal pole. It is observed in its normal position between the cranial aspect of the right kidney and the caudal vena cava. It is normal in appearance (uniformly hypoechoic) and shape with no evidence of a mass effect.

Spleen

The spleen is large and irregular in shape, echotexture is homogenous. Blood flow through the hilus and splenic parenchyma appears normal. There is a solid, mixed echogenic mass effect arising from the tail of the spleen, measuring 5.57 cm x 6.42 cm.

Liver

The liver is large in size, and normal in echogenicity with smooth peripheral margins. The parenchyma is heterogenous in echotexture with subtle, indistinct focal mottling. The visible portions of the vasculature and biliary tract appear normal. There is a small cyst visualized on the left side of the liver.

The gallbladder lumen appears significantly distended, measuring 7.9 cm x 0.8 cm. It has a moderate amount of dependent hyperechoic shadowing material within the lumen. The wall is not thickened and has a smooth mucosal surface. No evidence of bile duct dilation is visualized.

Gastrointestinal

The stomach contains minimal luminal contents. It measures at a normal thickness of <0.7cm with some variability due to the presence of rugal folds. The distinction of the gastric wall layers is adequate and there is no impression of reduced peristaltic activity. No masses or focal lesions were observed.

The visualized areas of duodenum, jejunum and ileum have a relatively uniform diameter with minimal fluid distension. Wall thickness is normal. Bowel loops follow a curvilinear path with distinct wall layering maintaining the typical 1:3 muscularis:mucosa layer ratio. Duodenum wall measured 0.38 cm. Jejunum wall measured 0.21 cm. Visualized peristalsis appears appropriate. There were no focal lesions consistent with obstruction or a mass effect observed.

The ileocecal junction was visualized and exhibited normal intact wall layering and is subjectively of normal thickness. Sections of colon are visualized with formed fecal material and gas shadowing distally. There is no observed focal or generalized colon wall thickening or loss of layering.

Pancreas

The pancreas is normal and isoechoic to surrounding mesentery. There is no evidence of nodules or cystic lesions. There is no evidence of regional mesenteric inflammation or fluid.

Free Abdomen

Evaluation of the peritoneal cavity did not reveal any evidence of effusion, or subjective lymphadenomegaly. The Medial iliac nodes appear normal and there was no evidence of a caudal aortic thrombus at the bifurcation. The omentum is of normal uniform echogenicity.

PRIMARY FINDINGS

- Irregular polypoid mass arising from the apical portion of the urinary bladder – Primary differential would be a transitional cell carcinoma, although other possibilities exist.
- Large, solid mass effect arising from the tail of the spleen – A focal, large, solid, mixed echogenic mass is present within the splenic parenchyma. This mass distorts the splenic capsule. Differentials include benign lesions such as lymphoid hyperplasia, hemangioma, etc., or neoplastic lesions such as hemangiosarcoma, lymphoma, histiocytic sarcoma, etc.
- Moderate pyelectasia of the left kidney – Pyelectasia of the left kidney could be consistent with pyelonephritis, chronic renal disease, secondary to PU/PD or fluid therapy (if applicable), other.
- Large, heterogeneous liver – The diffuse hepatic changes are non-specific and could be consistent with vacuolar hepatopathy, nodular hyperplasia, inflammatory/immune-mediated disease, fibrosis, extramedullary hematopoiesis, toxic hepatopathy (e.g., copper), infiltrative neoplasia (less likely) or other hepatopathy.
- Very large gallbladder with dependent mineralized debris – The gallbladder is very large in size, but there is no obvious evidence of a diseased wall or dilated bile duct. Recommend close monitoring of the gallbladder and liver values. Ursodiol could be considered.

SECONDARY FINDINGS

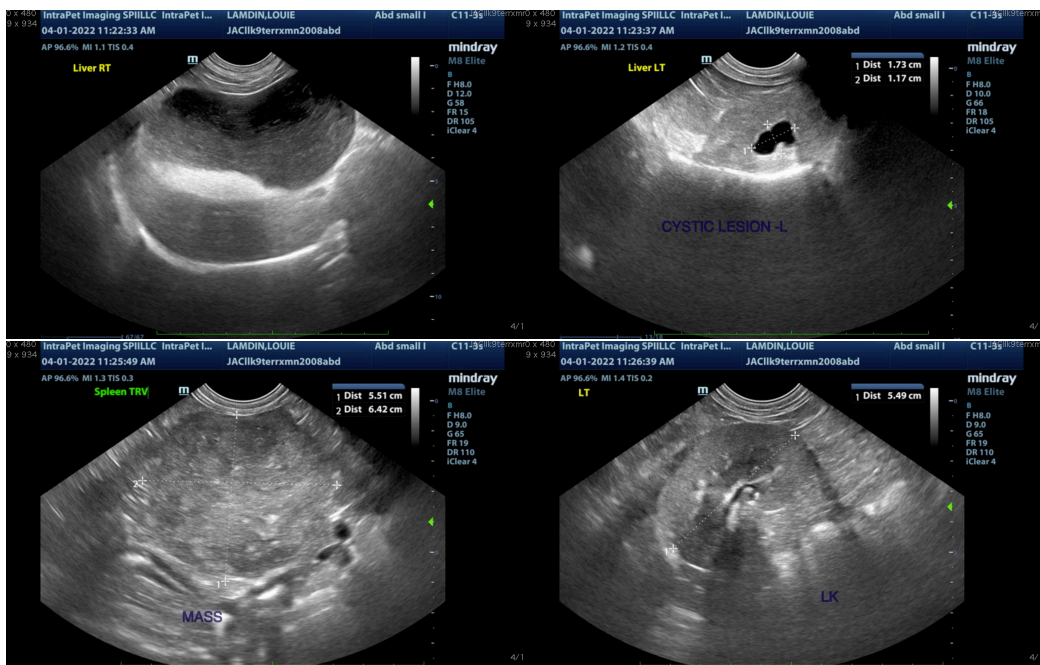
- Decreased corticomedullary distinction in both kidneys – The bilateral renal findings are consistent with age-related change.

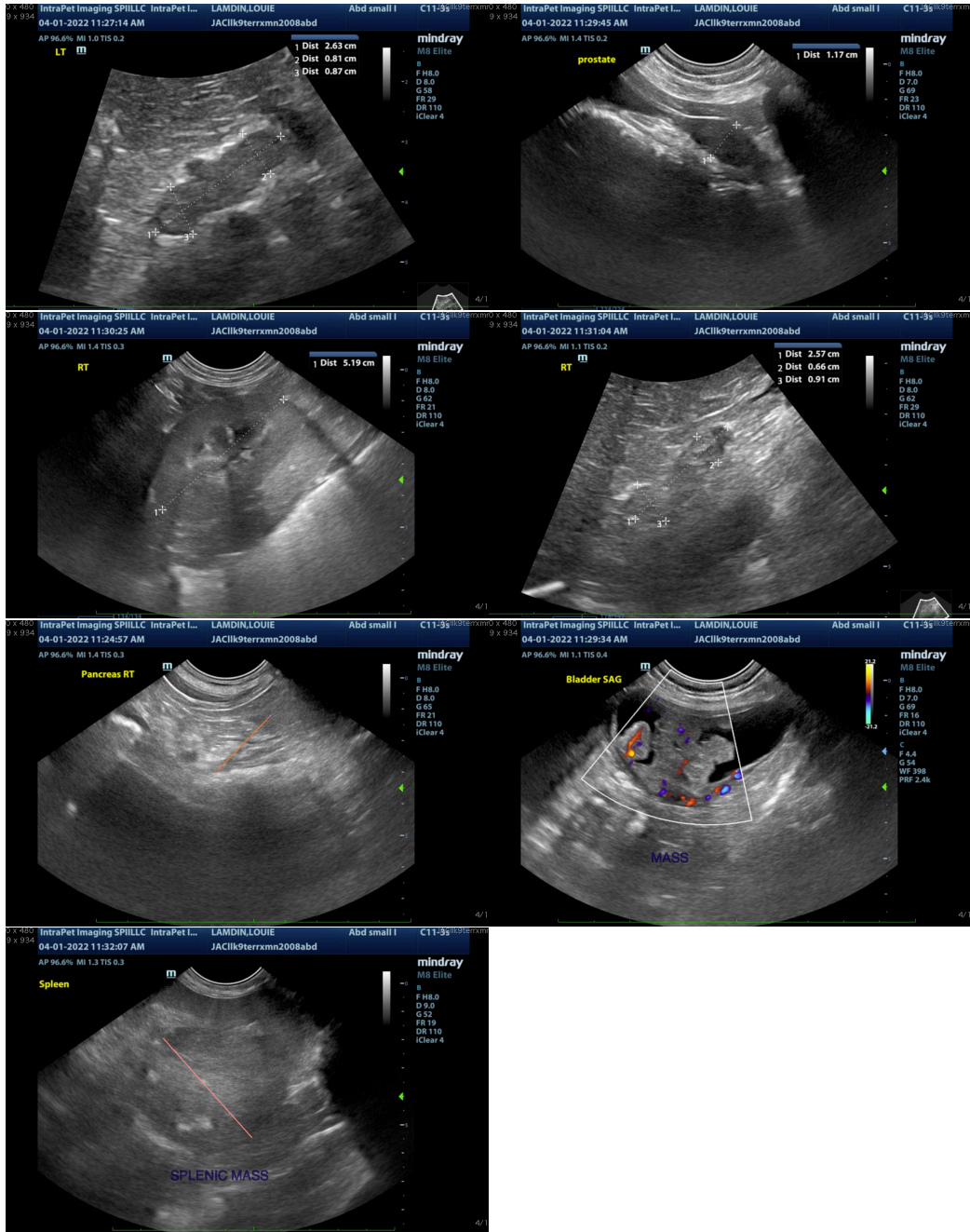
INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

A large splenic mass is present. Ideally, splenectomy would be performed for both diagnostic and therapeutic purposes. If this patient is asymptomatic for the splenic mass, an alternative option would be continued monitoring with ultrasound +/- fine needle aspirate. Unfortunately, there is some risk for rupture of any splenic mass, but this lesion does not appear cavitated, which is a positive finding. Consider three view thoracic radiographs to rule out concurrent thoracic disease/involvement.

Unfortunately, additionally there is a mass in the urinary bladder. This is in an apical position, which is good, as it is less likely to cause an early urine obstruction. Options moving forward for diagnosis would include either urine BRAF test (If this test is positive, it would be highly suspicious for transitional cell carcinoma. If it is negative, this test is inconclusive and additional diagnostics would be required), or a traumatic catheterization with cytologic evaluation.

This patient's symptoms are relatively mild at this time. You can see PU/PD with splenic masses, and there is some pelvic dilation in the left kidney, so urinalysis and culture is warranted.





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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