

**DATE PRESENTING CLINICAL SIGNS**

9/14/21 History: Reverse Sneezing, Severe Dental Disease, Nasal Discharge, Gastroenteritis, Giardia, and Possible incontinence.

PATIENT Current Medications: Clavamox Drops 1ml BID

Schatze Newberry Lab Results & Radiographs: Attached

Date of Previous IntraPet Ultrasound: 06/18/2019.

Sedation: Not needed.

Stat Report: Not requested.

SPECIES

Canine

BREED

Dachshund

SEX

Spayed Female

AGE

2005

WEIGHT

10.4 Pounds

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**Urinary System**

There is a 1.39 cm x 0.97 cm hyperechoic, rounded projection arising from the wall of the urinary bladder, most consistent with a focal mass lesion. Unfortunately, full evaluation is hindered by lack of bladder distention and intrapelvic location. The visible areas of trigone, ureteral papillae, and visible urethra appear normal with no evidence of wall thickening or cystic calculi.

The left kidney has a normal shape and size (4.1 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.

The right kidney has a normal shape and size (4.49 cm). Overall echogenicity is slightly hyperechoic with mildly reduced 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 0.7 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 0.64 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 subjectively normal in size, echotexture is homogenous, and the splenic capsule is smooth with no irregularities. The blood flow through the hilus and splenic parenchyma appears normal. There is a small hypoechoic nodule visualized, measuring 0.36 cm x 0.44 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. No focal nodules or cystic lesions are observed.

The gall bladder lumen is moderately distended. The wall of the gall bladder is not thickened and has a smooth mucosal surface. There is a large amount of non-organized echogenic debris. The cystic and common bile ducts are normal/not visible.

INTERPRETED BY

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HOSPITAL NAME

Friendly Paws VC

REFERRING VET

Dr. Price

INVOICE

25387

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 0.44 cm. Jejunum wall measured 0.28 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 prominent and hypoechoic as compared to the surrounding isoechoic 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

- 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.
- Large amount of gallbladder sludge – The significance of the aggregated gallbladder sludge is unclear. This could represent an early mucocele, cholestasis, or may be secondary to fasting.
- Mass effect in urinary bladder – This is suspicious for a true bladder mass, but visualization is impaired by lack of bladder distention.
- Small, hypoechoic nodule in the spleen – There is a non-cavitated, hypoechoic splenic nodule visualized. Differentials include lymphoid hyperplasia, extramedullary hematopoiesis, infiltrative neoplasia, inflammation, other. Cytology or histopathology would be necessary to get a definitive diagnosis.

SECONDARY FINDINGS

- Mildly reduced corticomedullary distinction both kidneys – The bilateral renal findings are consistent with age-related change.
- Prominent, hypoechoic pancreas – The pancreatic changes are most consistent with mild pancreatitis or a recent episode of pancreatic inflammation.

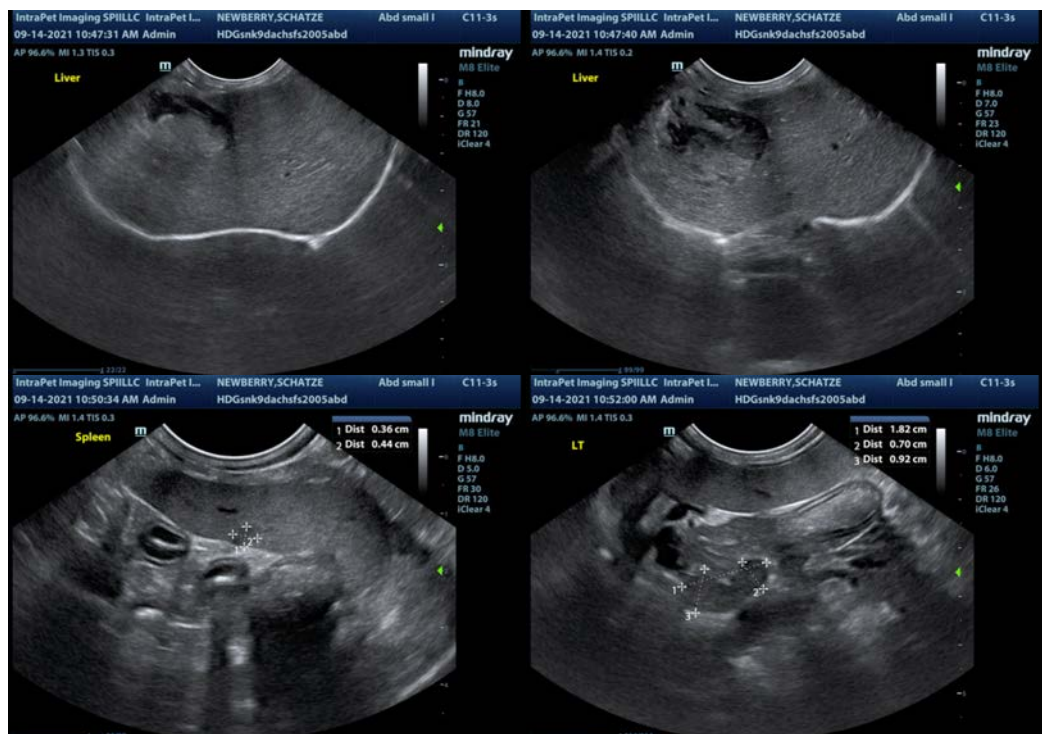
INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

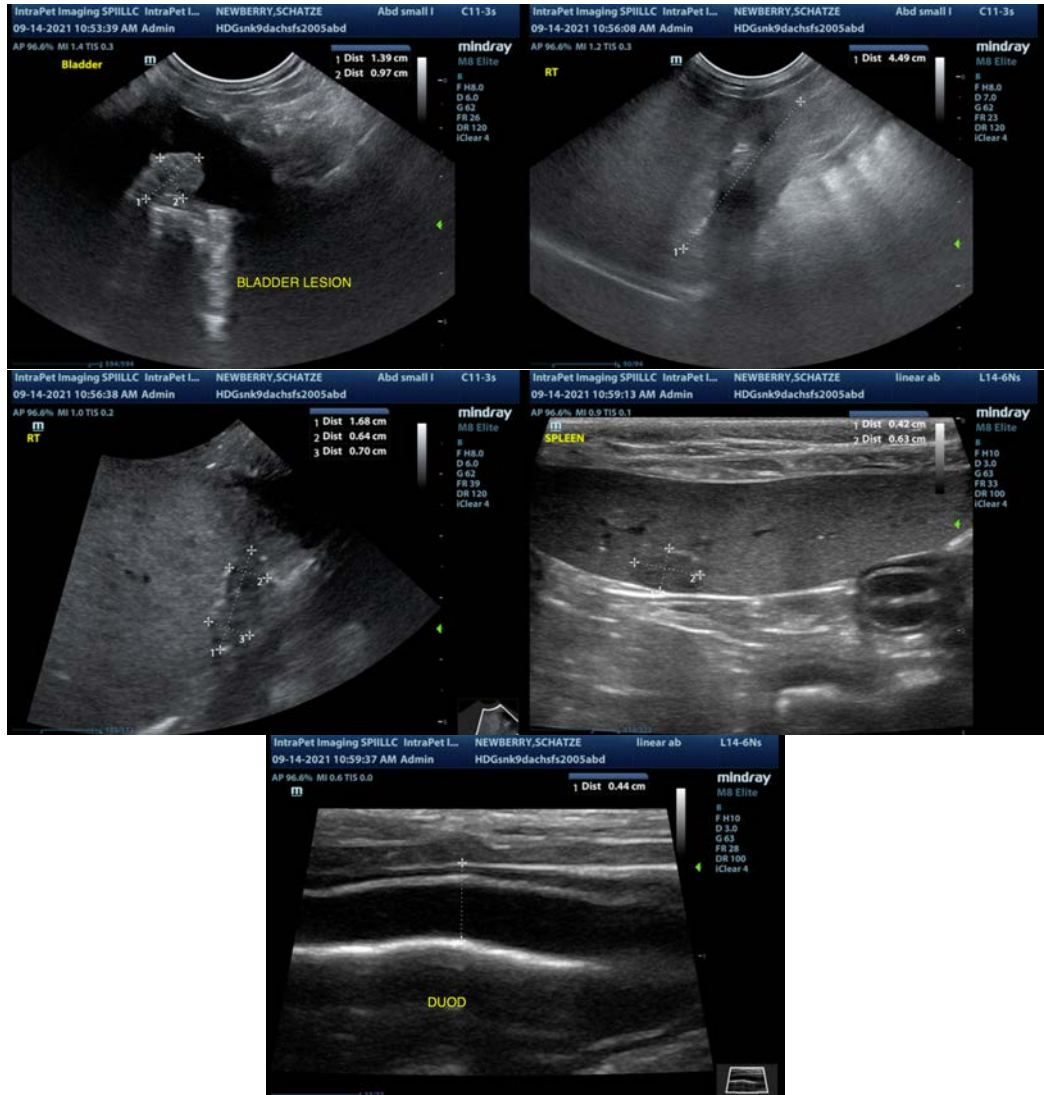
Many of the changes observed are chronic (large, heterogenous liver) or could be associated with advanced age. Of primary concern is the lesion visualized in the urinary bladder. On reviewing the scan from 6/19, there were polypoid projections in the urinary bladder at that time as well. Full evaluation of the urinary bladder is difficult due to lack of distention, but this mass appeared more broad-based unless polypoid. Options moving forward include:

- Urinalysis and culture to look for evidence of active infection (sterile cath sample)
- Urine BRAF test – Look for BRAF mutation seen in patient's with transitional cell carcinoma. A positive test greatly increases suspicion for TCC. A negative test is inconclusive and will need further diagnostics
- and/or traumatic catheterization to obtain cells for cytology.
- If urine culture is positive, this could be a polyp, and you could consider reevaluation with ultrasound in 2-4 weeks (with a more distended bladder).
- The gallbladder is also concerning, although it was noted as abnormal two years ago. Consider starting Ursodiol and monitoring closely.

Consider either fine needle aspirate of the splenic nodule, or close continued monitoring with ultrasound. The elevated ALP and large liver are longstanding issues, which may or may not be associated with Cushing's disease (prominent, but not overtly enlarged adrenals).

I see no direct reason why the dental/nasal evaluation cannot be pursued, but the bladder lesion is concerning for a possible TCC.





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.

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