

**DATE PRESENTING CLINICAL SIGNS**

4/25/23 Blind, deaf, PU/PD, pot belly. Grade 2/3 heart murmur- asymptomatic at this time.

**PATIENT** Current Medications: None at this time.

Bozy Rozycka

Lab Results: Banfield in January 2023- Elevated GGT, Bun 38. Platelets are very low in number but unlikely is accurate as symptoms and rest of labs do not fit. ALKP 175.

Date of Previous IntraPet Ultrasound: No previous.

**SPECIES**

Canine

Sedation: Not required to complete full diagnostic ultrasound.

Stat Report: Not requested.

Imaging Performed By: Stephanie Warga RDCS, RVT.

**BREED**

Shih Tzu

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN****SEX**

Neutered Male

**Urinary System**

The urinary bladder is moderately distended with anechoic urine. The Bladder wall largely appears normal with no evidence of diffuse thickening or irregularity. There is a focal mass effect involving the bladder wall in the dorsal mid/apical region of the urinary bladder. This mass effect appears submucosal and is hypoechoic and slightly irregular, measuring 1.28 cm x 1.67 cm. The region of the trigone, ureteral papillae and proximal urethra appear free of any mass lesions or calculi.

**AGE**

6/23/11

The prostate is normal in size (0.71 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.

**WEIGHT**

24 Pounds

The left kidney has a normal shape and size (4.84 cm). Overall echogenicity is normal with adequate corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of focal perinephric inflammation or effusion. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

**INTERPRETED BY**

Kathleen Sennello DVM,  
MS, Diplomate ACVIM  
(Small Animal Internal  
Medicine)

The right kidney has a normal shape and size (4.99 cm). Overall echogenicity is normal with adequate corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of focal perinephric inflammation or effusion. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

**HOSPITAL NAME**

Chadwell AH

**Adrenal Glands**

The left adrenal gland is normal in size measuring 0.65 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.

**REFERRING VET**

Dr. Schaupp

The right adrenal gland is normal in size measuring 0.60 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.

**INVOICE**

46907

**Spleen**

The spleen is large and irregular. The blood flow through the hilus and splenic parenchyma appears normal. No focal parenchymal abnormalities are visualized. There is a large, irregular, hypoechoic, slightly mottled mass effect visualized measuring 5.71 cm x 3.71 cm.

**Liver**

The liver is normal in size but irregular in shape. The parenchyma is homogenous echotexture. The visible portions of the vasculature and biliary tract appear normal. There is a large, hyperechoic, slightly irregular

moth eaten/slightly cystic mass effect visualized on the left side of the liver, measuring approximately 6.61 cm x 4.12 cm.

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 moderate amount of non-organized echogenic debris. The cystic and common bile ducts are normal/not visible.

### ***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 uniform diameter with minimal fluid distension. Wall thickness is normal to slightly increased. Bowel loops follow a typical curvilinear path with distinct wall layering, but some areas display a prominent muscularis layer which does not display the typical 1:3 muscularis:mucosa layer ratio. Duodenum wall measures 0.39 cm. Jejunum wall measures 0.32 cm. There is mild mucosal speckling. 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. There is a prominent lymph node in the cranial abdomen measuring 1.24 cm x 0.82 cm. The omentum is of normal echogenicity.

## **PRIMARY FINDINGS**

- Focal hypoechoic submucosal mass effect visualized in the dorsal mid portion of the urinary bladder – This does not have the classic appearance of a transitional cell carcinoma. Consider the possibility of lymphoma, leiomyoma, leiomyosarcoma, etc.
- Large, hypoechoic splenic mass – This mass distorts the splenic capsule. Differentials include : benign lesions ( lymphoid hyperplasia, hemangioma etc..) or cancerous lesions (hemangiosarcoma, lymphoma, histiocytic sarcoma etc..)
- Irregular, hyperechoic, slightly cystic left-sided liver mass – Findings are most consistent with a primary hepatic mass, although a metastatic lesion is possible. Consider such differentials as carcinoma, adenoma, less likely hemangiosarcoma, etc.
- Subjectively thickened small intestine with mild mucosal speckling – Bright mucosal speckling has been postulated to represent dilated lacteals or focal accumulations of mucus, cellular debris, etc.. in the mucosal crypts.
- Prominent cranial abdominal lymph node – The prominent abdominal lymph nodes are most consistent with reactive lymphadenitis or lymphoid hyperplasia. Neoplastic infiltration is considered less likely.

## SECONDARY FINDINGS

- Mild gallbladder debris – The significance of the aggregated gallbladder debris is unclear. This could represent an early mucocele, cholestasis, or may be secondary to fasting but seems unlikely to be causing a current issue. Recommend continued monitoring.

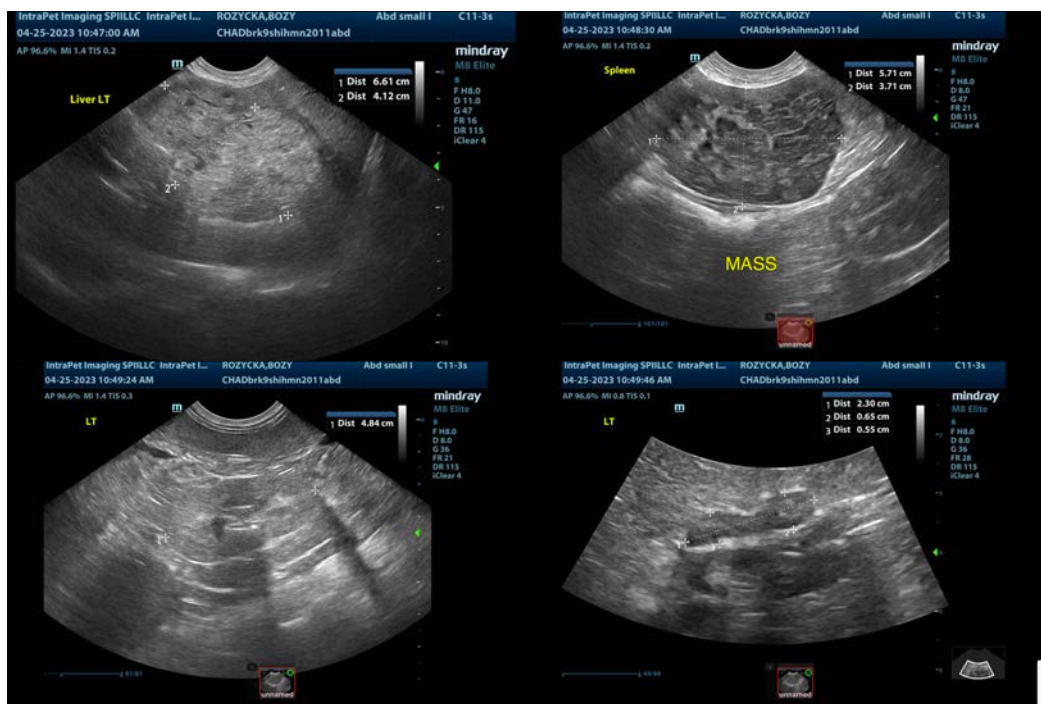
## INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

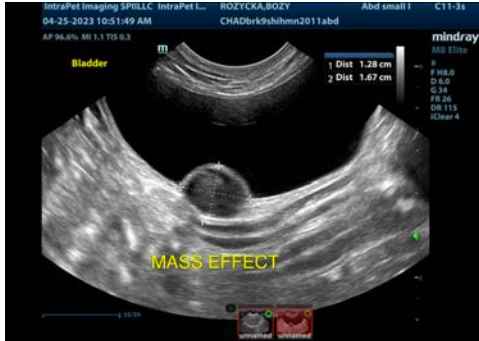
There are numerous lesions visualized in the abdomen. I suspect these are independent/concurrent disease processes, although metastatic neoplasia is possible. The bladder mass lesion appears submucosal. Correlate this with a urinalysis and culture. Based on the appearance, I'm concerned that non-invasive methods of sampling may be less diagnostic, and a surgical biopsy may be necessary. If a window can be obtained for a fine needle aspirate, this could be considered.

There is a large hypoechoic splenic mass present. This could represent a benign or neoplastic process. Options moving forward would include a fine needle aspirate (if trying to evaluate for possible metastatic lesions) or splenectomy for both diagnostic and therapeutic purposes.

There is a large, slightly cystic/moth eaten, hyperechoic mass effect in the liver. This has the appearance most consistent with a primary hepatic mass lesion. These appear to have somewhat benign behavior, although a metastatic lesion cannot be definitively ruled out. Options moving forward would include a fine needle aspirate of the mass lesion. Ideally a contrast CT scan would be performed to evaluate prior to considering surgical removal.

Provided 3-view thoracic radiographs are normal, there could be the possibility of referring to a surgeon for a splenectomy/removal of the bladder mass lesion and evaluation of the hepatic mass. Given the number of processes present, advanced imaging would be preferable for surgical planning (as discussed above). The source of the PU/PD is uncertain, although both a hepatic mass lesion and splenic mass lesion could be associated with this. Other differentials are also possible.







**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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