**DATE PRESENTING CLINICAL SIGNS**

1/20/2022

History: Patient presented for annual exam. Tentative dx of DJD and periodontal disease. During the exam P had marked abdominal distention and abd sensitivity/pain. Severe elevations in ALKP, GGT and ALT on routine lab work.

**PATIENT**

Perry Love

Current Medications: Rimadyl- started in November and discontinued when lab results returned. Gabapentin 200-300mg PO q8-12hrs.

Lab Results: CBC/chem- November 2021: AST 83 (<66), ALKP 2037 (<131), GGT 56 (<12), ALT 220 (<118). (T4 and CBC WNL). Attached separately.

**SPECIES**

Canine

Radiographs: Owner declined radiographs in favor of abdominal US.

Date of Previous IntraPet Ultrasound: No previous IntraPet scans.

Sedation: Not required to complete full diagnostic ultrasound.

Stat Report: Not requested.

**BREED**

Pitbull Terrier

Imaging Performed By: Andi Parkinson, RDMS.

Additional History: 4dx negative. ALP 20037. ALT 220. GGT 56.

**SEX**

Male Neutered

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN****AGE**

10-1-2013

**Urinary System**

The urinary bladder is moderately distended. The wall in the region of the ventral apical aspect is mildly thickened (up to 0.43 cm). There is a smooth mucosal surface. No cystic calculi are observed. The region of the trigone is normal

**WEIGHT**

65.8 Lbs.

The prostate is not definitively visualized due to its pelvic location.

The left kidney is normal size (8.14 cm in length); with a slightly irregular shape and architecture with smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with minimal to mild loss of corticomedullary distinction. A small cortical cyst is observed at the caudal aspect. There is no evidence of pyelectasia, nephroliths or hydroureter.

**INTERPRETED BY**

Andrea Nicastro, DMV,  
Diplomate DACVIM  
(Small Animal  
Internal Medicine)

The right kidney is normal size (7.52 cm in length); with a slightly irregular shape and architecture with smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with minimal to mild loss of corticomedullary distinction. A small cortical cyst is observed at the cranial aspect. There is no evidence of pyelectasia, nephroliths or hydroureter.

**HOSPITAL NAME**

Belvedere Veterinary  
Center

**Adrenal Glands**

The left adrenal gland is enlarged (3.72 x 2.16 cm), with a mass effect. The parenchyma is heterogenous with numerous small cavitated areas. There is loss of glandular detail. There is no obvious evidence of vascular invasion.

**REFERRING VET**

Dr. Eden

The right adrenal gland is normal size (1.13 cm at cranial pole) (0.48 cm at caudal pole) (2.43 cm in length); normal shape; homogenous parenchyma. The glandular echogenicity and detail are unremarkable. Capsule, cortex, and medullary definition are normal. The phrenicoabdominal vein and surrounding vasculature are normal.

**INVOICE**

10169

**Spleen**

The spleen is normal in size (1.36 cm in width at the level of the hilus) with a normal capsular contour. A light micronodular pattern is observed throughout the parenchyma. A coarse echotexture is present. No

focal lesions are observed. Splenic vasculature is normal.

#### **Liver**

The liver is subjectively prominent in size with swollen peripheral contours. The parenchyma is isoechoic relative to the spleen and mildly heterogenous in appearance. A 3.31 x 2.75 cm irregular cystic lesion is observed on the left side. Hepatic vasculature and intrahepatic biliary tracts are of normal volume with no evidence of congestion.

The gall bladder is distended. The wall is normal in thickness. A large amount of suspended sludge in a partially stellate pattern is observed within the lumen. The cystic and common bile ducts are normal/not seen.

#### **Gastrointestinal**

The gastric lumen is mildly to moderately distended with hard shadowing material. The gastric wall is normal in thickness with a normal layering pattern. The small intestinal lumen is segmentally dilated with gas and chyme. The small intestinal wall thickness is normal with a normal layering pattern and appropriate mural detail. Discreet masses are not identified. The colonic wall is normal.

#### **Pancreas**

The region of the pancreas is isoechoic relative to surrounding omental fat. No obvious parenchymal abnormalities are observed. There is no evidence of regional inflammation or effusion.

#### **Free Abdomen**

The peritoneal cavity is normal. There is no evidence of inflammation or effusion. The abdominal lymph nodes are normal/not visible.

### **ULTRASONOGRAPHIC FINDINGS**

#### **Primary Findings**

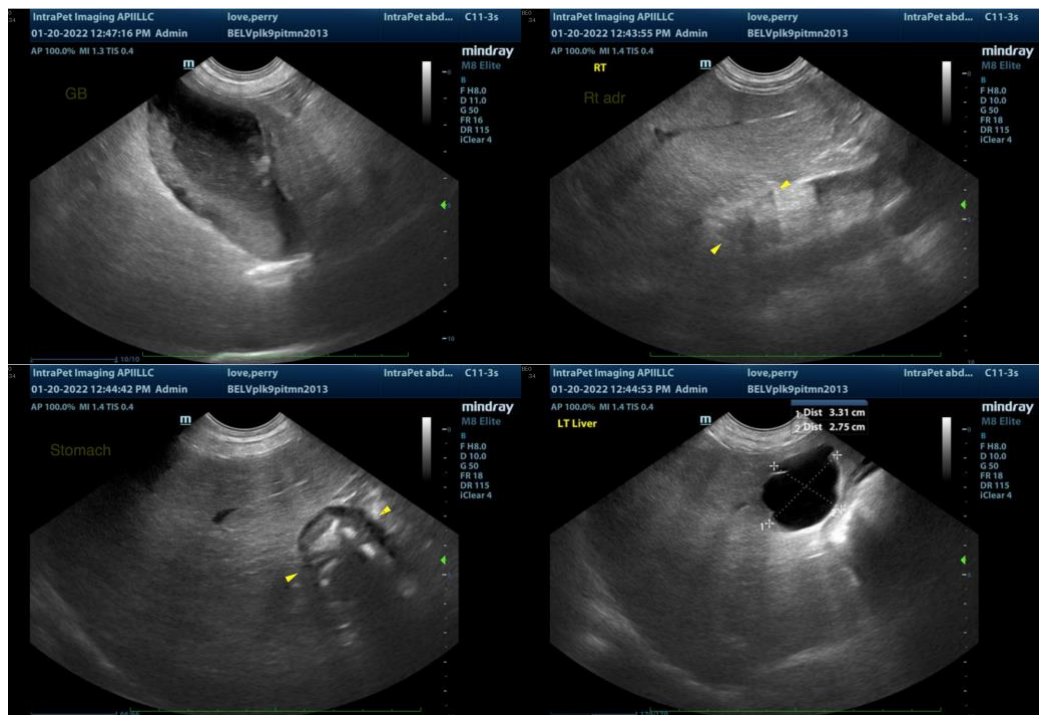
- Left adrenal mass Neoplasia (i.e., adenocarcinoma, adenoma, pheochromocytoma), is suspected, with a low possibility of benign pathology
- The diffuse hepatic changes are non-specific and could be consistent with vacuolar hepatopathy, regenerative nodular hyperplasia, and/or age-related remodeling. Inflammatory and infiltrative disease are considered less likely.
- The hepatic cyst is likely a benign incidental finding.
- The gall bladder changes are concerning for a developing mucocele. However, cholestasis or fasting cannot be excluded as possible causes for the suspended sludge.

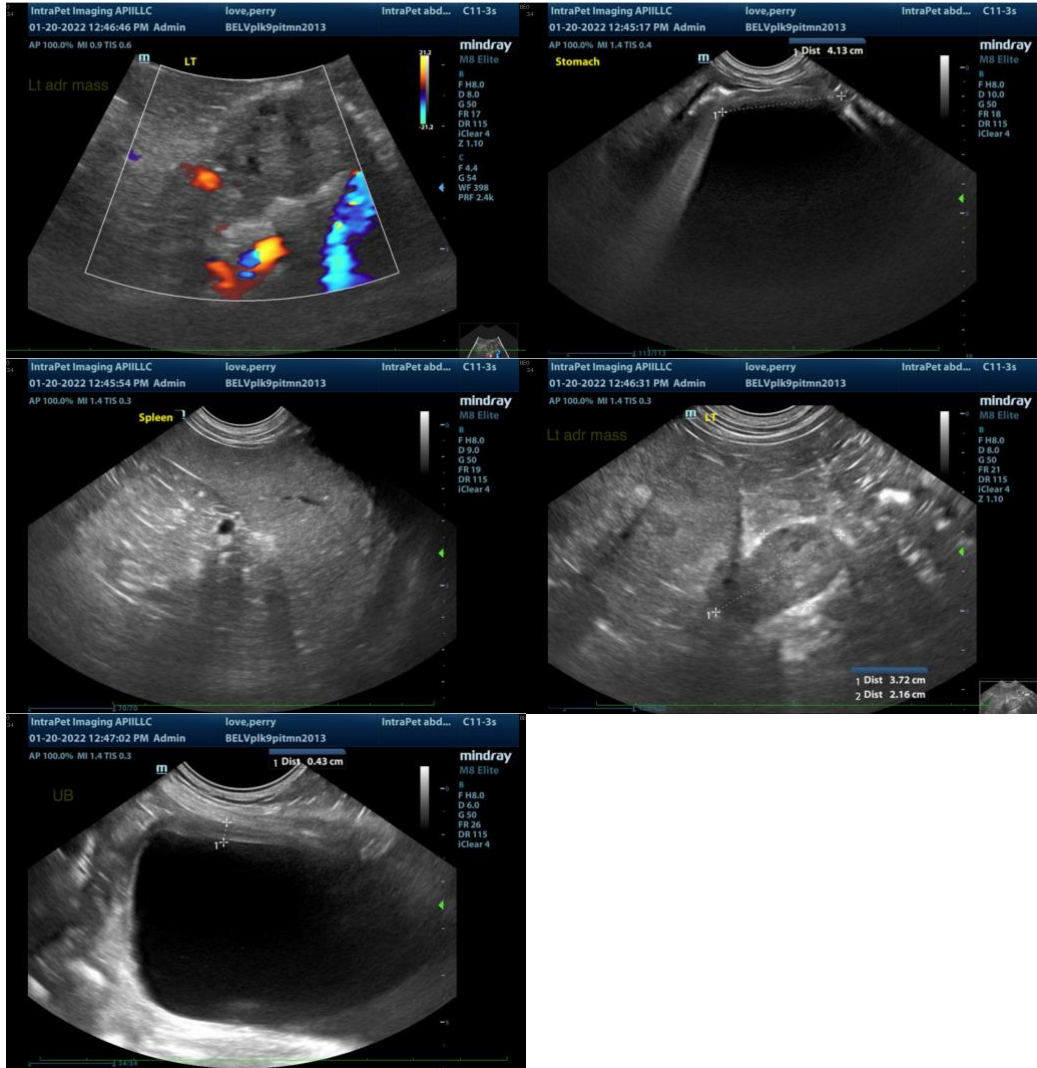
#### **Secondary Findings**

- The hard-shadowing material within the gastric lumen may represent foreign material and/or normal ingesta. Correlation with clinical findings is recommended.
- The slightly thickened urinary bladder wall may be a normal variant for this patient or may represent low-grade cystitis.
- Bilateral non-specific age-related renal changes.

## INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

- Three-view thoracic radiographs are recommended to assess for pulmonary metastases.
- To further investigate the left adrenal mass, consider the following:
  1. Baseline blood pressure measurement
  2. Low-dose dexamethasone suppression test and urine/blood catecholamine levels (Marshfield Lab) to evaluate for a functional tumor
  3. +/- an abdominal CT scan to assess resectability
- Regarding the gall bladder changes, Ursodiol therapy can be initiated at this time. Alternatively, a recheck ultrasound of the gall bladder can be considered in a few weeks, preferably 2 hours post-small meal. If changes are similar to the current scan, Ursodiol can be initiated at that time.
- Consider abdominal radiographs to further assess for gastric foreign material.





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.

**Andrea Nicastro, DVM, Diplomate DACVIM (Small Animal Internal Medicine)**  
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