



**DATE PRESENTING CLINICAL SIGNS**

11/24/25 Patient History: Mild ADR for 1 year. Recent bloodwork found severely elevated PSL and cholestasis.

**PATIENT**

Luna Whetzel

Current Medications: Metronidazole 250mg 1/2 BID for giardia infection  
Labwork Results: Labwork attached, reported as: PSL - 6156 (H), AMYL - 3568, ALKP - 1571  
Date of Previous IntraPet Ultrasound: No previous.  
Sedation: Not required to complete full diagnostic ultrasound.  
Stat Report: Not requested.  
Imaging Performed by: Rachel Brillhart, RDMS.

**SPECIES**

Canine

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

**BREED**

Maltese

**Urinary System**

**SEX**

Female

Urinary bladder is adequately distended with anechoic contents. No masses, inflammatory changes, echogenic sediment or cystoliths are observed. The urinary bladder, trigone and visible pelvic urethra are normal in thickness with a smooth mucosal surface.

**AGE**

3/26/13

Kidneys are overall normal in size and shape with smooth peripheral margination. A normal 1:3 cortex to medulla ratio is maintained. The medulla and cortices are uniform in texture with some mild increased cortical echogenicity and mild loss of corticomedullary distinction, expected in this age patient. There is no evidence of pyelectasia, mineral or infarcts observed. The left kidney measures 4.11 cm. The right kidney measures 4.26 cm.

**WEIGHT**

13.8 Pounds

**Adrenal Glands**

**INTERPRETED BY**

Beth Johnson, DVM  
DACVIM

Left adrenal gland is normal in size (0.64 cm at cranial pole and 0.63 cm at caudal pole), shape and overall architecture, echogenicity and echotexture. Visible surrounding vasculature appears normal.

Right adrenal gland is normal in size (0.62 cm at cranial pole and 0.76 cm at caudal pole), shape and overall architecture, echogenicity and echotexture. Visible surrounding vasculature appears normal.

**HOSPITAL NAME**

Abbey AH

**Spleen**

Spleen is subjectively normal in size with a normal smooth capsular contour. Parenchyma is appropriately finely textured and homogenous with normal echogenicity relative to surrounding tissue (hyperechoic to liver). Multifocal well-demarcated hyperechoic homogenous nodules are noted. Splenic vasculature appears normal.

**REFERRING VET**

Dr. Kluttz

**Liver**

**INVOICE**

35658

Liver is subjectively enlarged with mildly irregular margins. Parenchyma is mildly 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 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.

### ***Gastrointestinal***

The visible stomach wall is normal in thickness 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. 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***

Pancreas is prominent (enlarged) in size and mildly irregular in shape with a slightly undulating contour. Parenchyma is coarse in echotexture and heterogenous to hypoechoic in echogenicity.

### ***Free Abdomen***

There is no visible free peritoneal effusion noted in these images.

There is no apparent pathologic lymphadenopathy noted in these images.

There is no definitive ultrasonographically visible evidence of reproductive tract pathology, ovaries, and/or uterus noted in these images at this time. Patient may potentially be spayed.

## **ULTRASONOGRAPHIC FINDINGS**

### **Primary Findings**

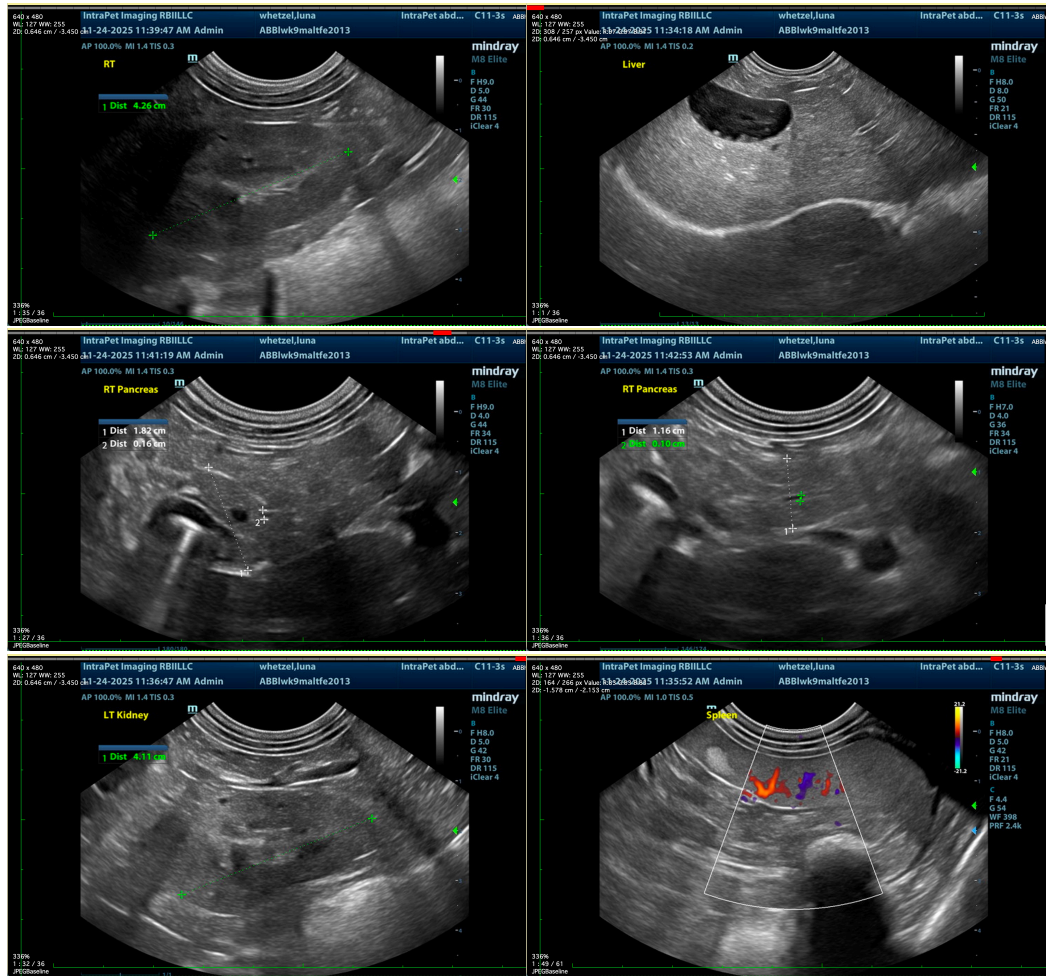
- Chronic low grade smoldering pancreatitis can't be ruled out and should be suspected in the face of appropriate clinical signs.
- Mildly heterogenous liver- These changes are most consistent with benign processes such as nodular hyperplasia, steroid (vacuolar) hepatopathy, extramedullary hematopoiesis or possibly chronic inflammatory disease and less commonly infiltrative round cell or metastatic neoplasia.
- Moderate 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.

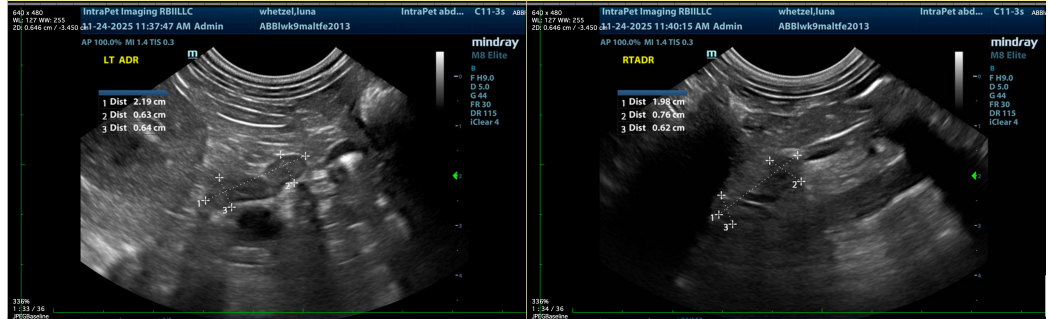
### **Secondary Findings**

- Hyperechoic splenic nodules- most consistent with benign myelolipomas. Other differentials such as fibrosis or calcification caused by old hematomas or infarcts, chronic inflammation, granulomatous disease or metastatic disease cannot be ruled out, but are considered less likely.
- Age-related kidney changes

## INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The changes described above are very subtle/mild and largely nonspecific. Given patient's concurrently nonspecific clinical history, it's difficult to determine whether or not the abdominal changes are contributing. If clinical history is consistent with chronic low grade smoldering pancreatitis, a diet change could be considered. Otherwise, extraabdominal sources, orthopedic, neurologic, cardiac, respiratory, etc., may warrant investigation.





**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**

info@sonopath.com