

**DATE PRESENTING CLINICAL SIGNS**

12/15/21 History: Mild hypercalcemia diagnosed 05/04/2021 (11.9, high end of range is 11.8). AWW on 11/22/2021 rectal performed; concern for right anal gland nodule (~2 mm irregular lesion right gland). Calcium 11/22/2021 persistently mildly elevated at 12.0.

**PATIENT**

Leo Lines Current Medications: interceptor plus, Gabapentin (300 mg): 1-2 cap PO q 12 hr PRN (not on routinely). Date of Previous IntraPet Ultrasound: No previous IntraPet scans.

**SPECIES**

Sedation: Gabapentin.  
Stat Report: Not requested.

Canine

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN****BREED****Urinary System**

Malamute

The urinary bladder is moderately distended with anechoic urine. The bladder wall is subjectively mildly irregular diffusely, measuring 0.38 cm in width. The area of the trigone, ureteral papillae and visible urethra (to a depth of 2cm) appear normal with no evidence of mucosal irregularity, calculi or masses. These findings are most consistent with either mild cystitis or lack of complete urine distention.

**SEX**

Neutered Male

The prostate is normal in size (1.2 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.

**AGE**

5/7/10

The left kidney has a normal shape and size (7.73 cm). Overall echogenicity is normal with adequate 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.

**WEIGHT**

97 Pounds

The right kidney has a normal shape and size (6.42 cm). Overall echogenicity is normal with adequate 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.

**INTERPRETED BY**

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

**Adrenal Glands**

The left adrenal gland is normal in size measuring 0.58 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.

**IMAGING PERFORMED BY**

Andi Parkinson RDMS

The right adrenal gland is normal in size measuring 0.74 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.

**HOSPITAL NAME**

Paradise AH

**REFERRING VET****Spleen**

Dr. Riehl

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. No focal parenchymal abnormalities are visualized.

**INVOICE**

33463

**Liver**

The liver is subjectively normal in size, and 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 an ill-defined, hypoechoic nodule visualized at 1.58 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 small amount of non-organized, dependent, shadowing/mineralized, 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 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. The duodenum measured as normal (between 0.3-0.5cm in wall thickness) and the jejunum measured as normal (between 0.2-0.47cm.) 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**

- Heterogeneous liver with ill-defined, hypoechoic nodule – 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.

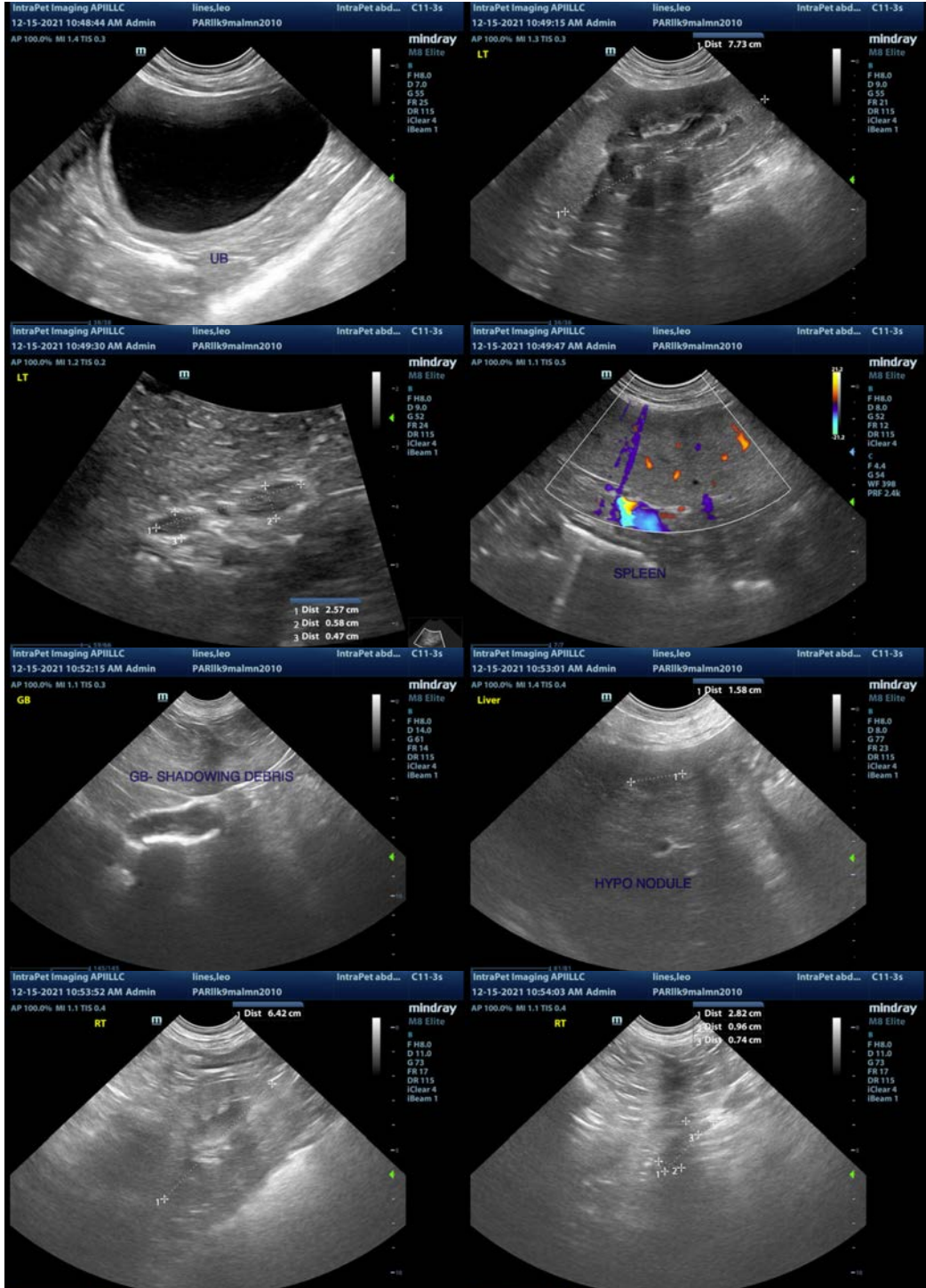
## **SECONDARY FINDINGS**

- Dependent, shadowing/mineralized debris in the gallbladder – The significance of the aggregated gallbladder sludge is unclear. This could represent an early mucocele, cholestasis, or may be secondary to fasting.
- Mildly irregular urinary bladder wall – Could be consistent with mild cystitis or lack of urine distention. Consider urinalysis and culture.

## **INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

No overt metastatic lesions are visualized on today's scan. The sublumbar lymph nodes appear normal. There are mild subjective changes to the liver and gallbladder, which could be normal for an older pet. If liver enzymes are elevated, then consider liver function test and fine needle aspirate.

The current plan for a fine needle aspirate, 3-view thoracic radiographs and a hypercalcemia of malignancy panel for further evaluation of the hypercalcemia and perianal mass is very appropriate prior to removal and histopathology of the mass.





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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