

**DATE PRESENTING CLINICAL SIGNS**

10/1/21 Lethargy, shifting leg lameness.

**PATIENT**

Current Medications: Gabapentin 100mg BID, Cyclosporin Opth, Galliprant 20mg PRN.  
 Lab Results: calcium elevated; ionized calcium normal.  
 Radiographs: rads - narrowed disc space L4 L5.  
 Date of Previous IntraPet Ultrasound: No previous IntraPet scans.

**SPECIES**

Canine

Sedation: Sedation not required for scan.  
 Stat Report: STAT report not requested by the veterinarian.

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN****BREED**

Shih Tzu x Bichon

**Urinary System**

The urinary bladder is moderately distended with anechoic urine. The Bladder wall, trigone, ureteral papillae and visible urethra (to a depth of 2cm) appear normal with no evidence of wall thickening, mucosal irregularities, or masses. There is dependent small mineralizations evident in the urinary bladder, consistent with small stones/sandy debris. Additionally, there is mineralization evident in the proximal urethra/prostatic urethra, most consistent with sandy debris/stones. Correlate with abdominal radiographs and make sure to include the distal urethra in the images, as this cannot be evaluated by ultrasound.

**SEX**

Neutered Male

**AGE**

9/18/2010

The prostate is normal in size (0.78 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**

21 Pounds

The left kidney has a normal shape and size (4.66 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.

**INTERPRETED BY**

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

The right kidney has a normal shape and size (4.58 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.

**HOSPITAL NAME**

Honeygo AH

**Adrenal Glands**

The left adrenal gland is normal in size measuring 0.51 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. Moffa

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.

**INVOICE**

26024

**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 0.52 cm x 0.42 cm.

**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. 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 mild 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 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. Jejunum wall measured 0.31 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 mottled 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**

- Sandy debris/small stones in urinary bladder and urethra – Correlate these findings with radiographs. Recommend urinalysis and culture. There is some risk for obstruction in this scenario, but the sandy debris may be small enough to pass.
- Decreased corticomedullary distinction in both kidneys – Mild loss of corticomedullary distinction in both kidneys could be consistent with chronic degenerative disease or interstitial nephrosis.
- Small, hypoechoic splenic lesion/nodule – 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.
- Mottled, prominent pancreas – The pancreatic changes are most consistent with age-related parenchymal remodeling, potentially secondary to a prior inflammatory episode, early fibrosis or chronic pancreatitis.

## SECONDARY FINDINGS

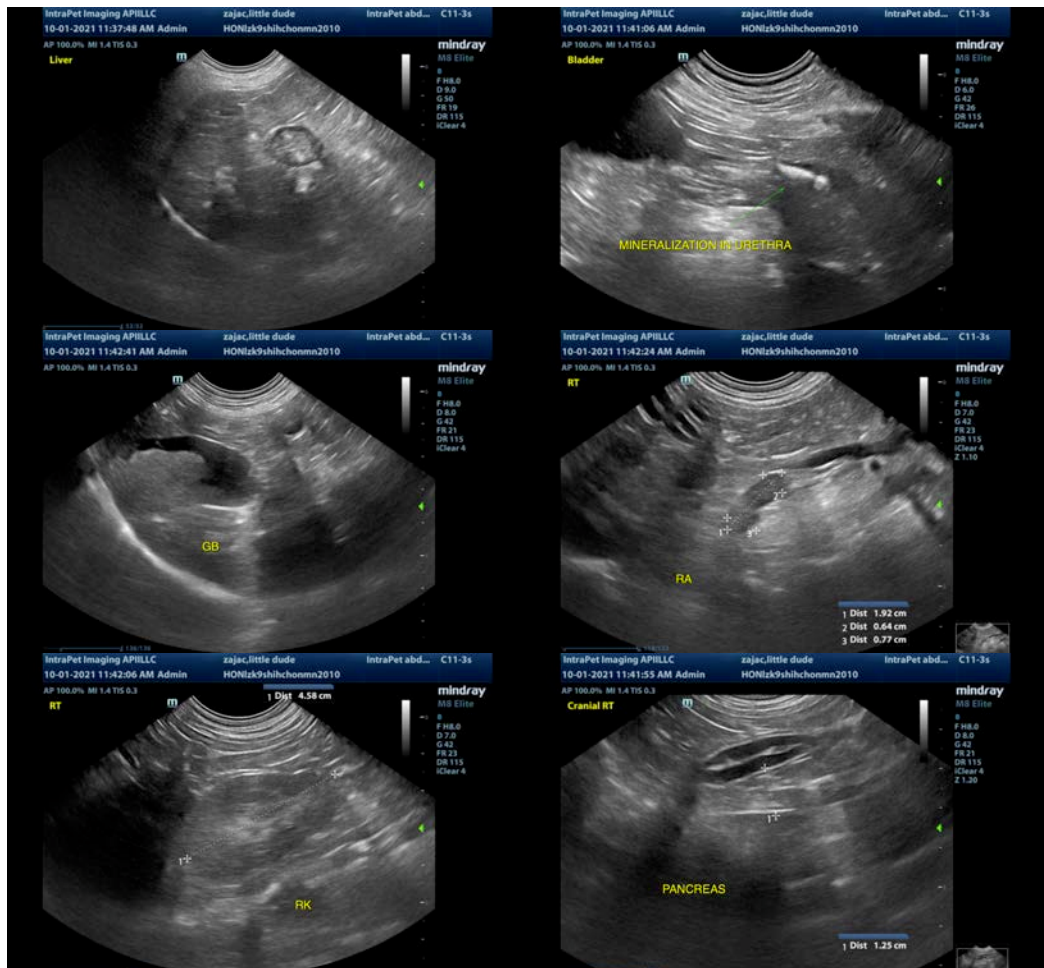
- Mild/moderate gallbladder sludge – The significance of the aggregated gallbladder sludge is unclear. This could represent an early mucocele, cholestasis, or may be secondary to fasting.

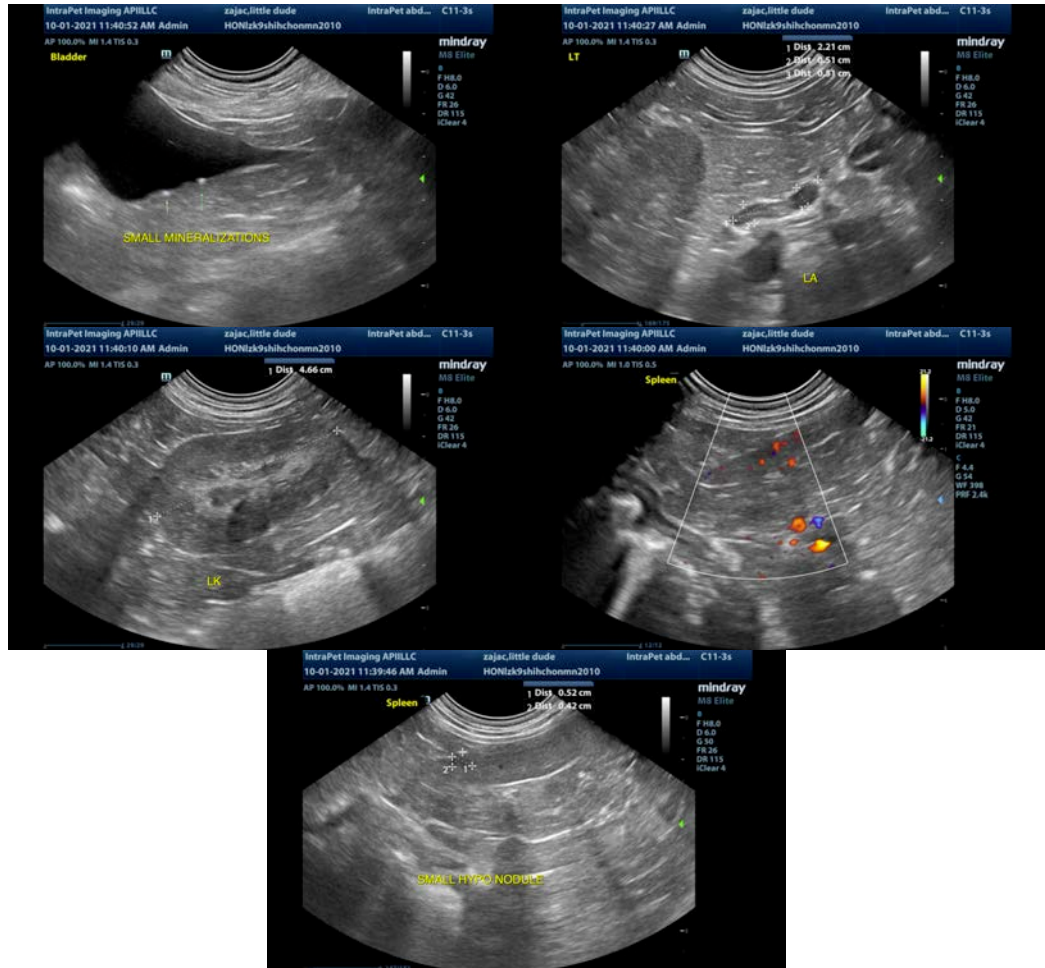
## INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Many of the findings noted today are likely age related changes (renal changes, liver changes). As long as bloodwork values appear normal, these are unlikely to be significant changes. Additionally, the splenic lesion is very small. You could consider a fine needle aspirate or continued monitoring with ultrasound.

There is sandy debris evident in the dependent portion of the urinary bladder and in the proximal urethra. Recommend radiographs to correlate and to determine if there is debris in the more distal urethra. Recommend urinalysis and culture. If this fine sandy debris clumping together, it could pass. If these are larger stones in the urethra, there is concern for possible obstruction.

I do not strongly suspect that any of these changes are related to the reported symptoms of shifting leg lameness. Consider vector borne disease testing and joint taps for further evaluation. Recommend 3-view thoracic radiographs.





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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