

**DATE PRESENTING CLINICAL SIGNS**

4/27/23

History of weight loss, recent consultation with Friendship Animal Hospital for nutritional assessment. Longstanding history of heart murmur, managed by CVCA, chronic skin disease, managed by Long Green Dermatology. Recent labs showed progressive elevation of PSL and over-medicated thyroid. Screening ultrasound to assess pancreas and rule-out other causes for weight loss. Have temporarily discontinued thyroxine with plan to recheck levels.

**PATIENT**

Otis Wallace

**SPECIES**

Canine

**BREED**

Chihuahua

**SEX**

Neutered Male

**AGE**

8/8/06

**WEIGHT**

6.5 Pounds

**INTERPRETED BY**

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

**HOSPITAL NAME**

Everhart Vet Hospital

**REFERRING VET**

Dr. Notarangelo

**INVOICE**

46995

Current Medications: ENTYCE 30MG/ML 10 ML. 4/18/2023, Cerenia 24mg tablet 4/18/2023, THYROXINE 0.3 MG. 3/22/2023, Clavamox 62.5mg tablet 12/28/2022, Cytopoint 10 mg vial (sky) (Inventory) 12/28/2022, CYTOPOINT INJECT 1-10 LBS 12/28/2022, Heska Allercept Allergy Therapy Drops In 12/13/2022, ANIMAX OINTMENT 15ML 11/29/2022, vetraseb ck shampoo 8oz 10/24/2022, pimobendan recently started by cardiologist 0.75 mg BID, Interceptor Plus 2-8lbs single dose 8/4/2022

Date of Previous IntraPet Ultrasound: No previous.

Sedation: Torbugesic IV.

Stat Report: Not requested.

Imaging Performed By: Stephanie Warga RDCS, RVT.

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

The urinary bladder is mildly to minimally distended with anechoic urine. The Bladder wall appears slightly thickened, measuring at 0.62 cm in the apical region. The urinary bladder appears caudally situated in the pelvic rim. These changes make full evaluation of the urinary bladder, prostate, and urethra impossible.

The visualized areas of prostate and surrounding tissue appear normal. Unfortunately, the prostate is not fully visualized likely due to its intrapelvic location. Correlate with rectal exam findings.

The left kidney has a normal shape and size (2.69 cm) with mild pyelectasia at 0.18 cm. Overall echogenicity is slightly hyperechoic with poor 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 nephroliths, infarcts or hydroureter. Renal vasculature is normal.

The right kidney has a normal shape and size (2.82 cm) with pyelectasia at 0.32 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 nephroliths, infarcts or hydroureter. Renal vasculature is normal.

**Adrenal Glands**

The left adrenal gland is normal in size measuring 0.42 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.

The right adrenal gland is normal in size measuring 0.40 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.

**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. No focal parenchymal abnormalities are visualized.

### ***Liver***

The liver is large in size, and hyperechoic 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 gallbladder lumen is moderately distended. The wall of the gall bladder is not thickened and has a smooth mucosal surface. Luminal contents are mild and primarily anechoic. 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. Duodenum wall measures 0.37 cm. Jejunum wall measures 0.33 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 right limb of 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.

## **ULTRASONOGRAPHIC FINDINGS**

- Subjectively thickened urinary bladder wall with an intrapelvic bladder – The bladder would have to be evaluated with significant distention to further evaluate.
- Decreased corticomedullary distinction in both kidneys with bilateral pyelectasia – Mild loss of corticomedullary distinction in both kidneys could be consistent with chronic degenerative disease or interstitial nephrosis. Pyelectasia of the kidney(s) could be consistent with pyelonephritis, chronic renal disease, secondary to PU/PD or fluid therapy (if applicable), other.
- Prominent, mottled right limb of the pancreas – The pancreatic changes are most consistent with mild pancreatitis or a recent episode of pancreatic inflammation.
- Large, heterogeneous, hyperechoic liver – 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. The significance of this is uncertain. With normal liver enzyme values, this could represent anatomic variation.

## INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

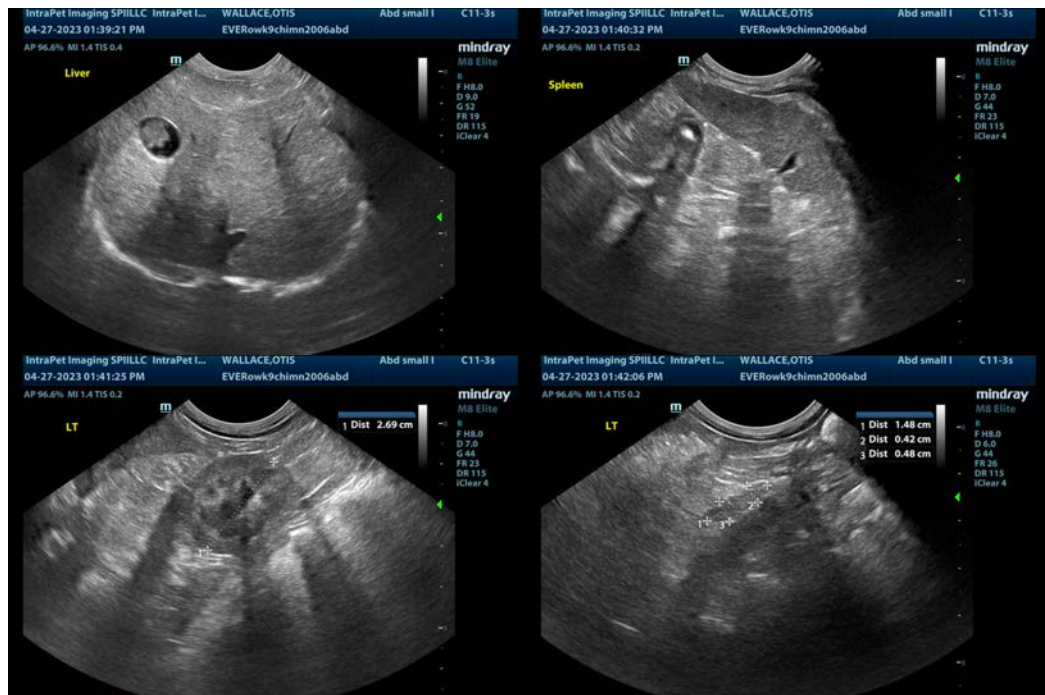
An obvious cause for the weight loss reported is not observed. The kidneys appear to have age related changes associated with underlying renal disease, as well as some renal pelvic dilation. Recommend a blood pressure, urinalysis and culture, as well as a urine protein to creatinine ratio to further assess, as early renal disease is likely.

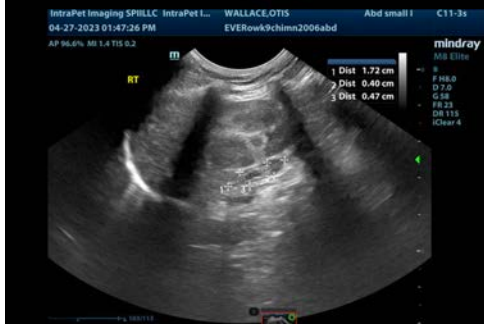
The pancreas appears mottled and somewhat prominent in the cranial right limb adjacent to the duodenum. This could be consistent with mild active inflammation or a previous episode of inflammation. Recommend empirical treatment for pancreatitis and continued monitoring.

The liver appears somewhat large, hyperechoic, and heterogeneous. The significance of this is uncertain, as liver enzyme elevations are not present. If symptoms are progressing without an identifiable cause, a liver function test and a fine needle aspirate could be considered.

The GI tract appears relatively normal, but you can still have significant gastrointestinal disease with a relatively normal appearance of the small intestine. If systemic disease is thought an unlikely source, you could consider a GI panel to Texas A&M for a qualitative PLI, TLI, cobalamin and folate to look for additional evidence of underlying gastrointestinal disease.

Recommend three view thoracic radiographs to evaluate for possible concurrent thoracic disease/involvement.





**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.

Kathleen Sennello DVM,MS, Diplomate ACVIM (Small animal Internal Medicine)  
kathleen.sennello@sonopath.com