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**DATE**

8/5/22

**PATIENT**

Olive Matteo

**SPECIES**

Canine

**BREED**

Mix

**SEX**

Spayed Female

**AGE**

6/14/09

**WEIGHT**

18 Pounds

**INTERPRETED BY**

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

**IMAGING  
PERFORMED BY**

Stephanie Warga  
RDMS, RVT

**HOSPITAL NAME**

Homeward Bound Vet

**REFERRING VET**

Dr. Vance

**INVOICE**

40245

**PRESENTING CLINICAL SIGNS**

Significant weight loss with normal BW. Previous hx of pancreatitis.

Current Medications: Cerenia daily,  
Date of Previous IntraPet Ultrasound: 3/22/22.  
Sedation: Not required to complete full diagnostic ultrasound.  
Stat Report: Not requested.

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

**Urinary System**

The urinary bladder is mildly to moderately distended with anechoic urine. The apical bladder wall appears somewhat thickened and slightly irregular, measuring 0.61 cm. The area of the trigone, ureteral papillae and proximal urethra to a depth of 2.0 cm appears normal with no evidence of calculi or mass lesion. Findings are most consistent with cystitis or lack of urine distention.

The left kidney has a normal shape and size (4.57 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.

The right kidney has a normal shape and size (4.11 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.

**Adrenal Glands**

The left adrenal gland is normal in size measuring 0.64 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 0.59 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 normal/borderline small in size and irregular. The parenchyma is heterogeneous echotexture. The visible portions of the vasculature and biliary tract appear normal. While no discrete progressive mass lesions are observed, there is the impression of some ill-defined hypoechoic nodules.

The gallbladder lumen is moderately distended. The wall of the gall bladder is not thickened and has a smooth mucosal surface. Luminal contents are primarily anechoic. The distal bile duct is visualized at the level of the duodenum and is mildly dilated at 0.5 cm.

### ***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 0.28 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 hypoechoic as 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. The previously visualized focal nodules and cystic lesion were not readily visualized on today's exam.

### ***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 generally hyperechoic, particularly in the cranial abdomen around the liver and pancreas.

## **PRIMARY FINDINGS**

- Mild apical wall thickening of the urinary bladder with mucosal irregularity – The bladder mucosal changes could be consistent with cystitis or artifactual due to lack of adequate luminal distension. Bladder neoplasia cannot be ruled out but is considered unlikely in this patient.
- Hypoechoic, prominent pancreas – The pancreatic changes are most consistent with mild pancreatitis or a recent episode of pancreatic inflammation. The pancreatic changes are persistent, but have not progressed and may be slightly improved from the previous scan.
- Borderline small heterogeneous, irregular 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. There is no apparent progression of mass lesions, but the liver appears very irregular and possibly smaller than in the previous scan.
- Dilated distal bile duct – Dilation of the common bile duct could be consistent with a functional obstruction (i.e. primary hepatic disease resulting in hepatocellular swelling) or with an extrahepatic bile duct obstruction (ie. choledocholith, bile duct tumor, pancreatic disease, other). This is stable from the previous exam from approximately 6 months ago.
- Hyperechoic omentum in the cranial abdomen – There is a general sense of inflammation in the cranial abdomen in the region of the liver, pancreas, and GI tract, but no focal definitive source is visualized.

## SECONDARY FINDINGS

- Decreased corticomedullary distinction in both kidneys – The bilateral renal findings are consistent with age-related change.

## INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

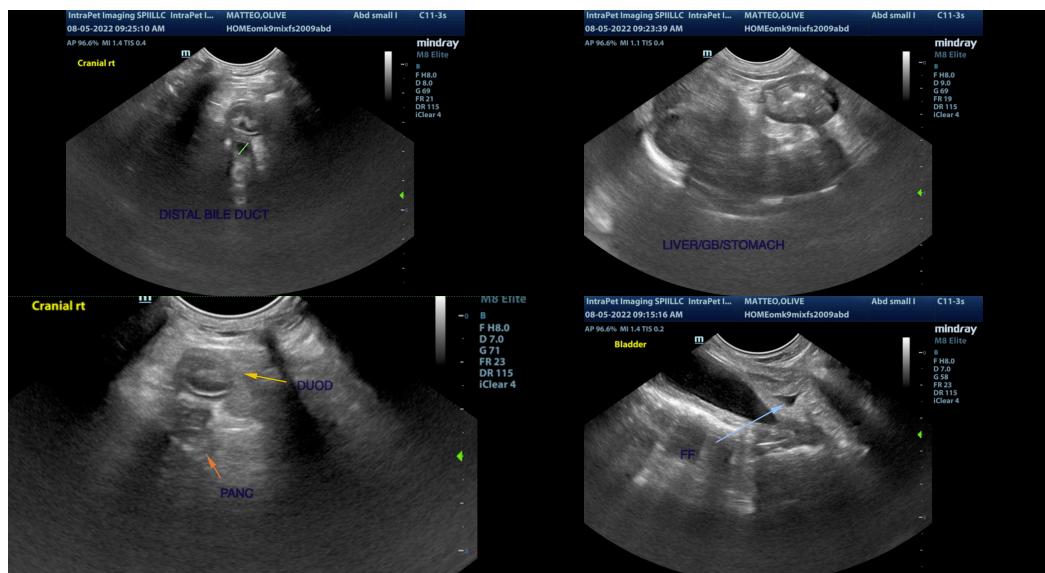
Today's scan appears relatively similar to the previous scan performed 3/22/22. There is no progression of the pancreatic lesions, nor are there enlarging masses on the liver. The liver subjectively appears smaller and very heterogeneous with some ill-defined focal hypoechoic regions that could be nodules, but the appearance favors benign nodules in that dramatic progression has not occurred in 6 months. Consider possible chronic liver disease. Correlate with current bloodwork, a liver function test, and consider fine needle aspirate of the liver.

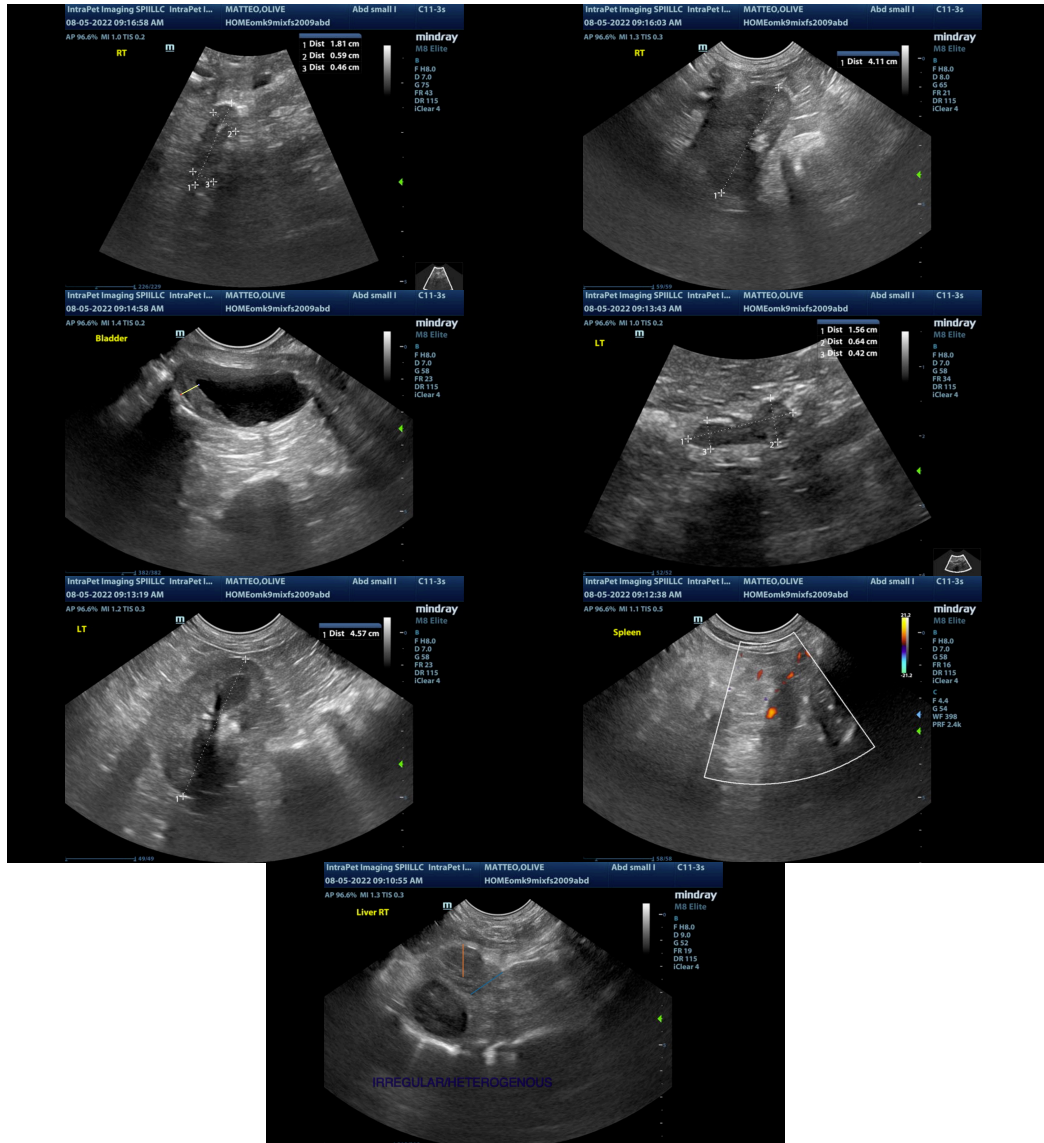
The pancreas appears persistently prominent and hypoechoic, but there has been no progression of the lesions previously observed, and they were difficult to clearly visualize on today's exam, so they may have improved. Recommendations for further evaluation of pancreatic and small intestinal disease from the previous scan still apply to today's scan.

The apical wall of the urinary bladder appears somewhat prominent and thickened. This could be due to lack of urine distention or cystitis. Recommend urinalysis and culture.

There is a general impression of inflammation in the cranial abdomen. This could be secondary to the liver, the pancreas(?), or the small intestine. If the patient is not doing well clinically and continues to lose weight, etc., further evaluation is recommended.

Consider three view thoracic radiographs to rule out 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