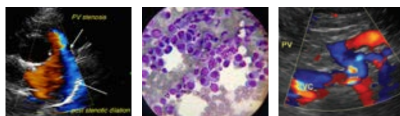
IMAGING PERFORMED BY
IntraPet.com



SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™
1-800-838-4268 info@sonopath.com SonoPath.com

**DATE**
8/23/23

**PATIENT**
Mitsy Bonaventure

**SPECIES**
Feline

**BREED**
DSH

**SEX**
Spayed Female

**AGE**
4/5/17

**WEIGHT**
11.2 Pounds

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

**HOSPITAL NAME**
Paradise AH

**REFERRING VET**
Dr. Pound

**INVOICE**
44885

## PRESENTING CLINICAL SIGNS

Inappetence and lethargy starting 8/10/23. Improved with buprenorphine, mirtazapine, cerenia, and SQ Fluids. 8/18/23 appetite declined with progressive lethargy over the weekend. Did not eat normal meal despite buprenorphine and mirtazapine from 8/18/23 to 8/21/23.. On presentation 8/21/23: Slightly unkempt haircoat, Mild-moderate icterus, Mild discomfort on cranial abdominal palpation, 2 lb weight loss since appt 8/10/23.

Current Medications: Beginning 8/21/23: LRS IV 1.5 x maint, Cerenia 1 mg/kg IV Q24h, Entyce 2 mg/kg IV Q24h, Metronidazole 10 mg/kg Q12h slow IV, Ampicillin 20 mg/kg Q8h slow IV, Buprenorphine 0.03 mg/kg IV Q12h, Gabapentin 100 mg PO Q12h, Offer food – any.
Lab Results: 8/7/23: SDMA 21, Na 143, Cl 105, GGT 8, Lipase 1860. 8/11/23: fPL 13.5. 8/21/23: ALKP 216, GGT 7, Na 146, Cl 110, T Bili 10.9.
Radiographs: Survey radiographs reportedly NSF - not available for review.
Date of Previous IntraPet Ultrasound: No previous.
Sedation: Not required to complete full diagnostic ultrasound.
Stat Report: Not requested.
Imaging Performed By: Andi Parkinson, BS, RDMS.

## ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

### *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, masses or cystic calculi.

The left kidney has a normal shape and size (3.97 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 pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

The right kidney has a normal shape and size (4.44 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 pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

### *Adrenal Glands*

The left adrenal gland is normal in size measuring 0.53 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 0.52 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 (0.59 cm), 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 and hypoechoic with smooth peripheral margins. The parenchyma is homogenous echotexture. The visible portions of the vasculature and biliary tract appear normal. There is a small 0.64 cm hypoechoic nodule visualized within the parenchyma.

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 proximal cystic duct appears slightly dilated at 0.54 cm, but this rapidly tapers and cannot be followed distally.

### *Gastrointestinal*
The stomach contains large ingesta. It measures at a normal thickness of <0.36cm 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 measures 0.17 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 large and hypoechoic to surrounding mesentery. There is no evidence of nodules or cystic lesions. There is evidence of regional mesenteric inflammation. Consistent with mild pancreatitis.

### *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 mesentery appears hyperechoic around the liver in the cranial abdomen.

## ULTRASONOGRAPHIC FINDINGS

- Hypoechoic, prominent pancreas surrounded by hyperechoic mesentery – The pancreatic changes are most consistent with moderate pancreatitis/pancreatic inflammation. Recommend fPLI testing and continued monitoring for improvement or possible development of a pancreatic abscess. Consider fine needle aspirate if not improving.

- Large, hypoechoic liver surrounded by hyperechoic mesentery – Possible differentials would include infiltrative disease (round cell neoplasia) inflammatory infectious disease, other.

- Prominent/mildly dilated bile duct – Given the normal appearing gallbladder and the rapid tapering, this is likely an incidental finding. No evidence of a biliary obstruction is visualized.

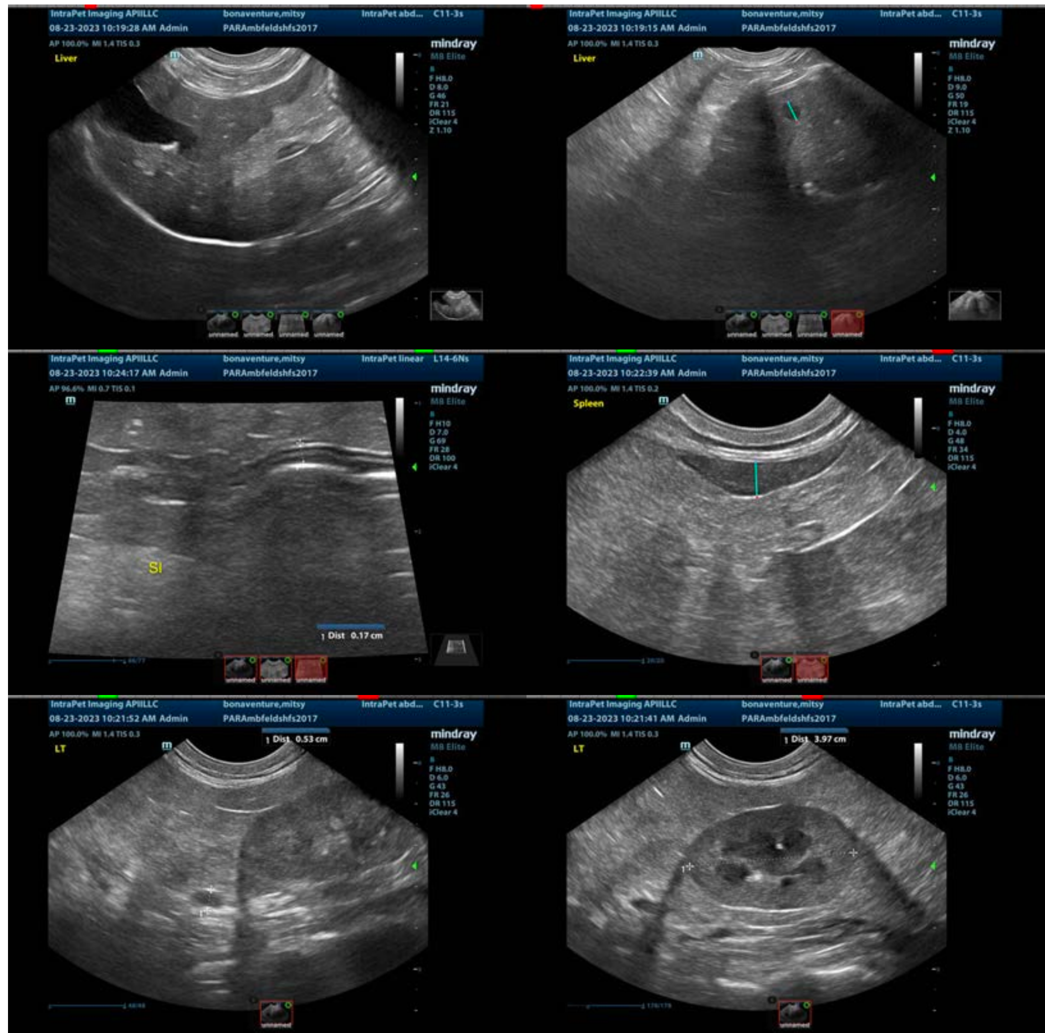
- Large ingesta dilated stomach – Findings are likely most consistent with delayed gastric emptying/ileus, less likely a pyloric outflow obstruction (none observed).

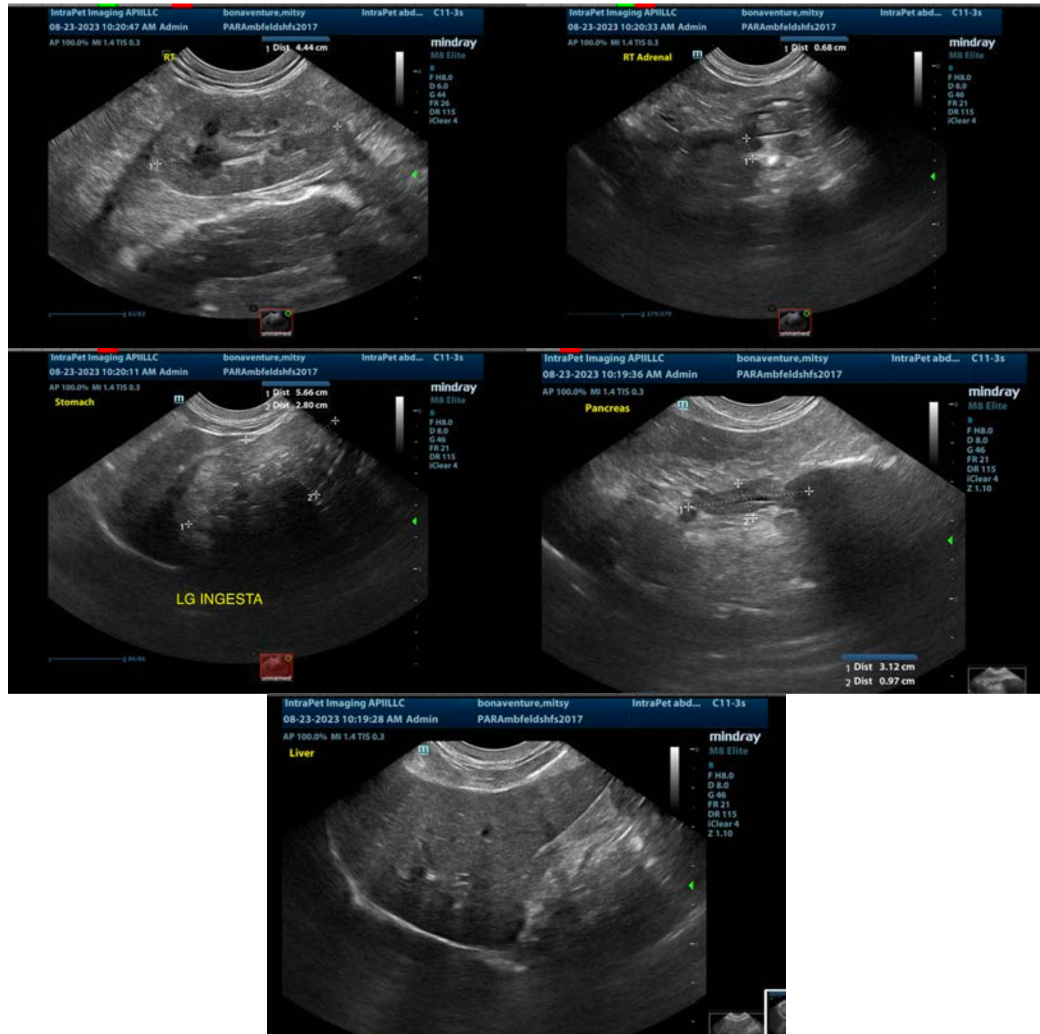
## INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The liver is large and hypoechoic. This is concerning for possible infiltrative disease or inflammatory/infectious disease (hepatitis). Based on the lack of response to empirical treatment, further diagnostics are warranted including a fine needle aspirate of the liver (provided coagulation parameters are normal) and likely screening for toxoplasmosis. If this is not helpful, a biopsy of the liver may be necessary.

The pancreas appears prominent and hypoechoic and there is some hyperechoic mesentery surrounding the liver, although there is minimal swelling or edema noted. These changes could be consistent with mild pancreatitis or with pancreatic remodeling and inflammation secondary to the hepatic disease present.

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)
info@sonopath.com