

**DATE**

2/11/22

**PRESENTING CLINICAL SIGNS**

History: Post Radiocat treatment - treatment done 12/14/2021.  
Lethargic. Elevated liver values. Slight increase in glucose levels. Past history of pancreatitis

Lab Results: Attached separately.

Radiographs: Attached separately.

Date of Previous IntraPet Ultrasound: No previous IntraPet scans.

Sedation: Not required to complete full diagnostic ultrasound.

Stat Report: Not requested.

Imaging Performed By: Stephanie Pearce RDCS, RVT.

**PATIENT**

Melanie Cunningham

**SPECIES**

Feline

**BREED**

Domestic Shorthair

**SEX**

Spayed Female

**AGE**

5/4/13

**WEIGHT**

10 lbs

**INTERPRETED BY**

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

**HOSPITAL NAME**

Animal Medical Clinic  
of Dulaney Valley

**REFERRING VET**

Dr. Chrest

**INVOICE**

96024

**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 (5.12 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.

The right kidney has a normal shape and size (4.37 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.

**Adrenal Glands**

The left adrenal gland is normal in size measuring 0.38 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 0.47 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 subjectively large/normal in size with smooth peripheral margins. The parenchyma is hyperechoic and homogenous in echotexture. 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 gallbladder is not thickened and has a smooth mucosal surface. Luminal contents are 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 <0.36cm 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 uniform diameter with minimal fluid distension. Wall thickness is normal to slightly increased. The jejunum measured 0.23 cm. Bowel loops follow a typical curvilinear path with distinct wall layering, but some areas display a prominent muscularis layer which does not display the typical 1:3 muscularis:mucosa layer ratio. 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. There is a large volume of shadowing feces. 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.

### ***Free Abdomen***

There is scant anechoic fluid in the area around the ileocecal junction. No lymphadenopathy is visualized. The omentum is generally of normal echogenicity.

## **ULTRASONOGRAPHIC FINDINGS**

### **PRIMARY FINDINGS:**

- Hyperechoic liver. Hepatic changes are non-specific and could be consistent with hepatic lipodosis, inflammatory/infectious disease, infiltrative neoplasia, or other hepatopathy.
- Mildly prominent muscularis layer to the small intestine. The small intestinal wall changes are most consistent with an inflammatory process (i.e., inflammatory bowel disease) with a low possibility of emerging lymphoma
- Prominent, hypoechoic pancreas. The pancreatic changes are most consistent with mild pancreatitis or a recent episode of pancreatic inflammation.

### **SECONDARY FINDINGS:**

- Scant anechoic fluid in the area of the ileocecal junction. The significance of this is not clear, but likely associated with some inflammation.

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

No distinct focal lesions are visualized on today's scan. The liver is somewhat hyperechoic. This can be normal in some cats with more adipose tissue, but in light of liver enzyme elevations a primary hepatopathy is possible.

- Consider close evaluation of history for possible toxic changes examine medications, diet, dietary indiscretion etc.

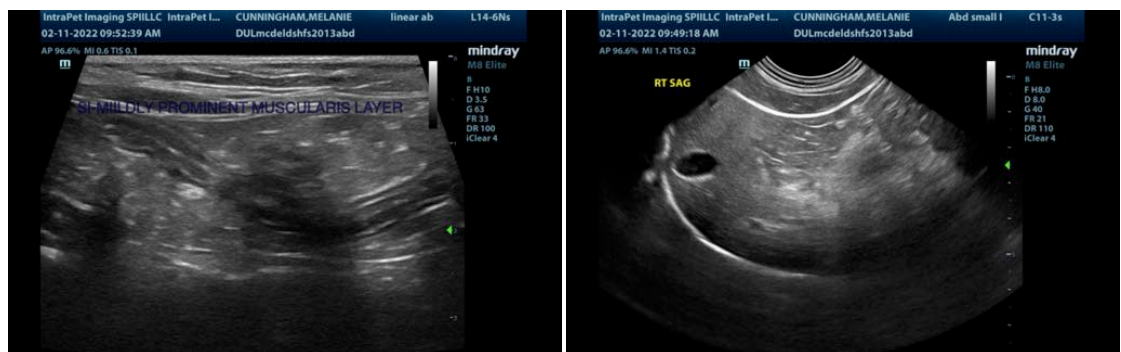
- Recommend thyroid evaluation (this patient was recently treated with I131) Confirm the liver values were normal prior to therapy
- Consider fine needle aspirate if round cell neoplasia is on your differential list (25 g needle, normal coags)-IT IS ☺
- If cytology is not helpful and there is no response to therapy, consider liver biopsy with samples obtained for histopathology and culture.
- If triaditis is suspected consider therapy for cholangiohepatitis (fluids, antibiotics , +/- Ursodiol,+/- steroids), testing for pancreatitis and evaluation for IBD (GI panel to Texas A&M GI lab). This could be a concern in this patient with a prominent muscularis layer and prominent pancreas.
- Consider a feeding tube if patient is not eating for a prolonged period of time

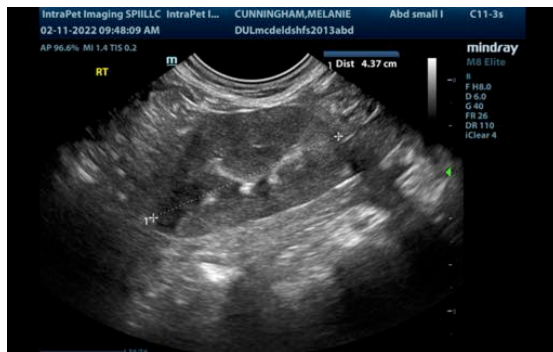
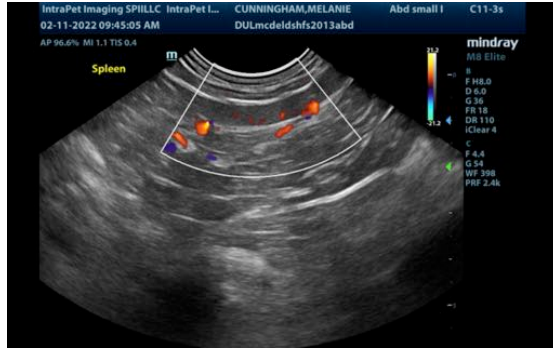
The pancreas is somewhat prominent. Consider a low fat diet if not already done and as recommended above, consider a GI panel to evaluate fPLI levels.

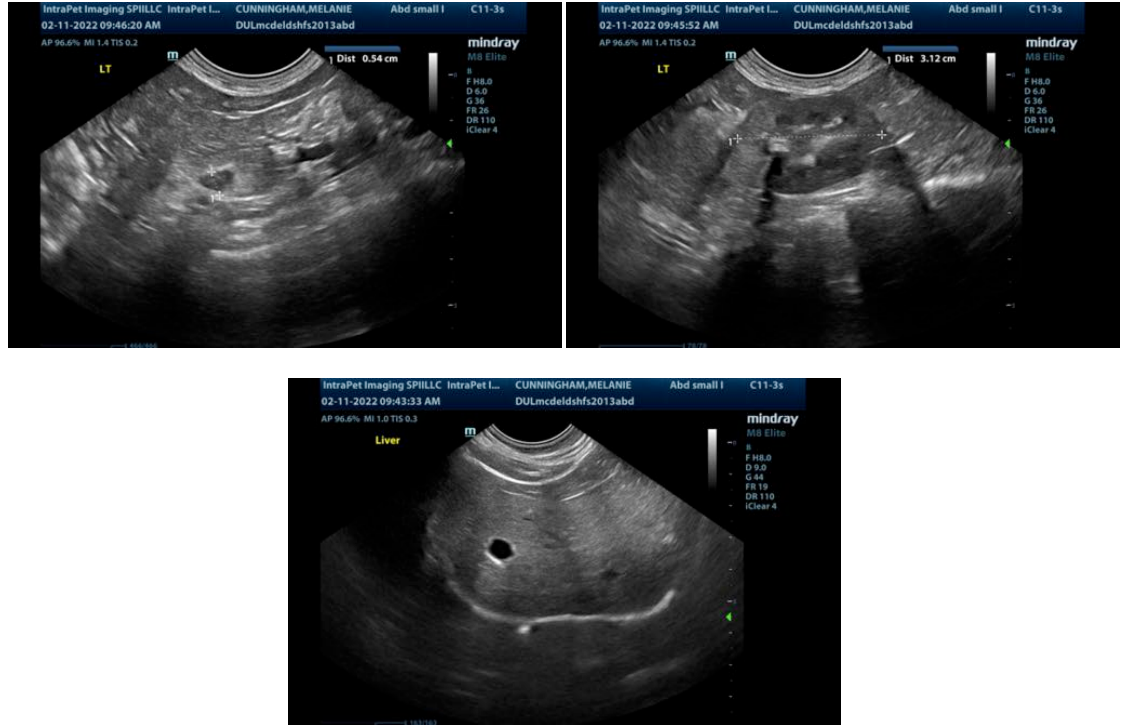
The muscularis layer is slightly prominent. I suspect there is not significant GI disease present, but this should be monitored and dietary manipulation can be considered (either low fat diet or novel protein/hydrolyzed protein prescription diet).

I am also concerned about emerging diabetes and secondary diabetic hepatopathy. You should not see this type of liver enzyme elevation with DM alone but keep an eye on the BG as this could contribute to the cat not feeling well.

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. 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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