

**DATE PRESENTING CLINICAL SIGNS**

4/6/23

Seen for irritated area on abdomen - overgroomed area on caudal abdomen with very lumpy SQ area - possibly cellulitis, and several draining tracts and superficial hematomas. Patient also not eating very well, but no vomiting. Possible mass in cranial abdomen on xray. Bloodwork shows extremely elevated pancreatic enzymes, concerned that inappetance due to a pancreatic tumor.

**PATIENT**

Cookie Monster Myers

**SPECIES**

Feline

**BREED**

DSH

**SEX**

Neutered Male

**AGE**

3/28/03

**WEIGHT**

12 Pounds

**INTERPRETED BY**

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

**HOSPITAL NAME**

Healing Paws VWC

**REFERRING VET**

Dr. Preston

**INVOICE**

46462

Current Medications: Mirataz since 3/31 - helps appetite a little but still poor. Starting Cerenia PRN on 4/4, and a convenia injection on 4/4

Lab Results: PSL = 5999 (8-26), SDMA 23.1 (<15), RBC 4.9 (5.92-9.93), HGB 7.4 (9.3-15.9), HCT 25 (29-48)

Radiographs: Possible mass in abdomen.

Date of Previous IntraPet Ultrasound: No previous.

Sedation: Not required to complete full diagnostic ultrasound.

Stat Report: Not requested.

Imaging Performed By: Rachel Brillhart, 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 (4.05 cm) with severe pyelectasia at 1.23 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 (4.01 cm) with a non-obstructive nephrolith at 0.72 cm and pyelectasia at 0.23 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 pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

**Adrenal Glands**

The left adrenal gland is normal in size measuring 0.41 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 0.46 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 normal in echogenicity with smooth peripheral margins. The parenchyma is mildly heterogenous in echotexture with subtle, indistinct focal mottling. The visible portions of the vasculature and biliary tract appear normal. There is an irregular hypoechoic mass effect visualized in the liver measuring 3.75 cm x 1.74 cm.

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 <0.36cm 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. The duodenum measured as normal (between 0.13-0.38cm in wall thickness) and the jejunum measured as normal (between 0.15-0.36cm.) 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, irregular, severely hypoechoic, and heterogeneous. These changes are expansile and create a large mass effect in the cranial abdomen measuring larger than 6.39 cm x 8.56 cm. This mass lesion is seen caudal to the stomach and extends to the right, and appears to envelop the duodenum.

### ***Free Abdomen***

There is scant free fluid. There is a mild diffuse cranial abdominal lymphadenopathy with lymph nodes varying in size from 0.23-0.50 cm. The omentum is severely hyperechoic surrounding the pancreatic mass lesion.

## **ULTRASONOGRAPHIC FINDINGS**

- Large, expansile, heterogeneous, irregular pancreatic mass lesion – Findings are concerning for a neoplastic lesion (carcinoma, lymphoma, other).
- Decreased corticomedullary distinction in both kidneys with bilateral pyelectasia – The bilateral renal findings are consistent with age-related change. Pyelectasia of the kidney(s) could be consistent with pyelonephritis, chronic renal disease, secondary to PU/PD or fluid therapy (if applicable), other. It is possible that ureters running through the region of the mass effect could be causing an obstruction, but this is not clearly visualized.
- Irregular hypoechoic hepatic mass – Findings are concerning for a possible metastatic lesion. Other differentials are possible.
- Mild cranial abdominal lymphadenopathy – The prominent abdominal lymph nodes are most consistent with reactive lymphadenitis or lymphoid hyperplasia. Neoplastic infiltration is considered less likely.

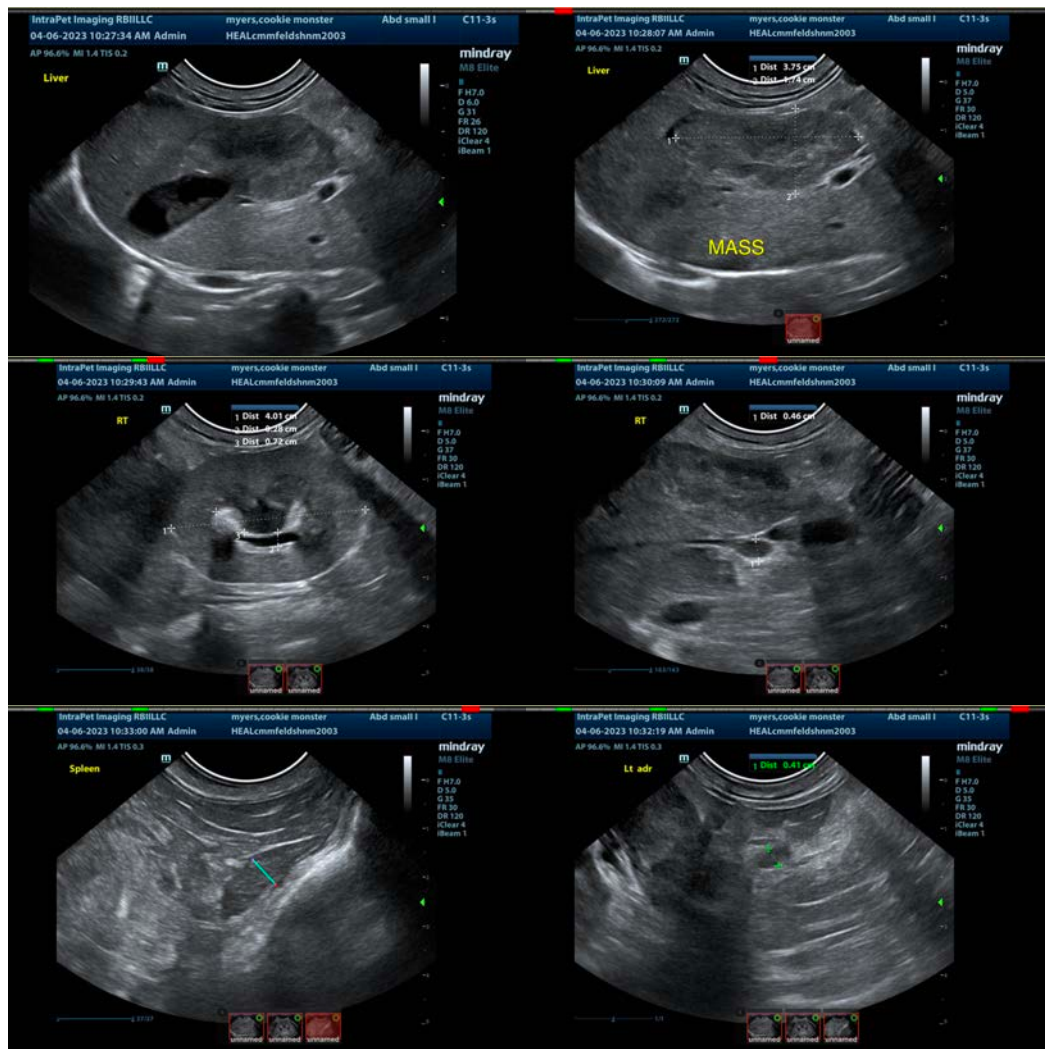
## **INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

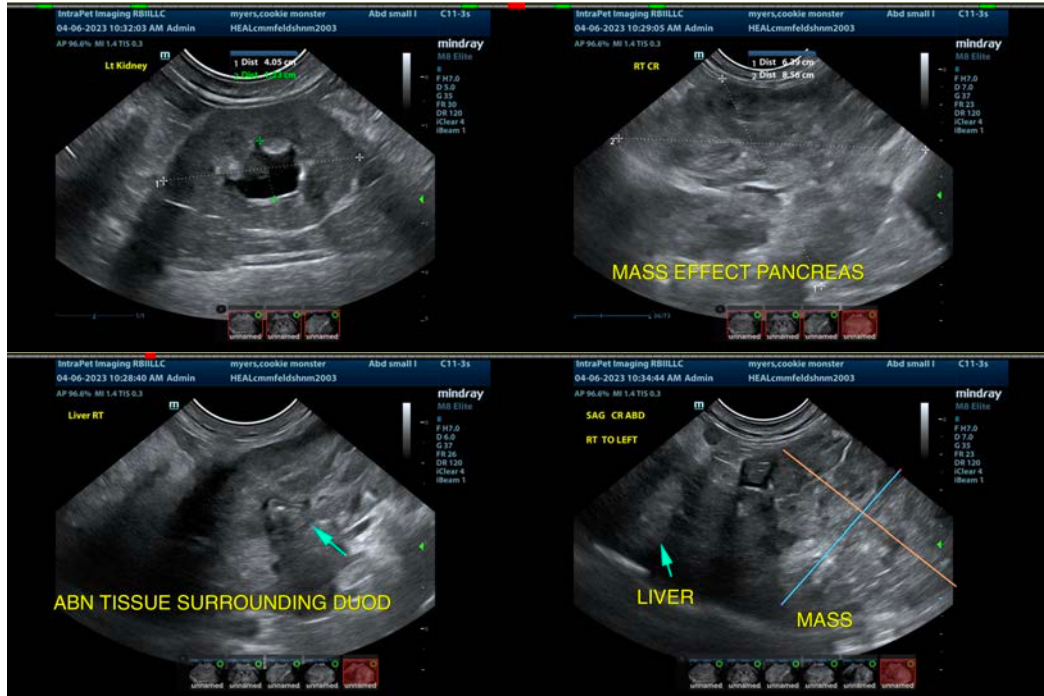
There is a large, irregular, expansile mass effect in the cranial abdomen in the region of the pancreas. This lesion is visualized caudal to the stomach and extends on the right side, enveloping the duodenum, most consistent with an aggressive pancreatic mass lesion.

Additionally, there is an irregular hepatic mass that is concerning for a possible metastatic lesion. These findings would correlate well with the severely elevated PLI levels and with the skin lesions described (likely paraneoplastic syndrome).

The cause for the bilateral renal pyelectasia is not definitively identified. This could be partially obstructive due to the mass lesion or due to pyelonephritis. A urinalysis and culture could be considered.

Treatment options are likely fairly limited. Diagnostically, you could consider a fine needle aspirate of the pancreatic mass lesion and the mass in the liver. Additionally, you could consider biopsies of the skin lesions, as sometimes there are neoplastic cells, but not always. If a diagnosis can be obtained, and therapy beyond supportive care is desired, recommend consultation with a veterinary oncologist to discuss options.





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.

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