

**DATE**

10/7/21

**PRESENTING CLINICAL SIGNS**

History: 9/22/21 Seen for being painful when picked up, esp. around belly. Pet was tense but no overt painful response to abd palpation or spinal palpation.

Current Medications: 9/22/21 start Gabapentin 100 mg TID

Lab Results: Labs: Hct mild decrease at 35%, poorly regenerative. ALP mild increase. Free catch UA showed increased RBC without significant WBC or bacteria.

Radiographs: hepatomegaly, constipation, narrowed IVD spaces L1-L2 and L4-L5.

Date of Previous IntraPet Ultrasound: No previous.

Sedation: Not needed.

Stat Report: Not requested.

**PATIENT**

Peluquin Portillo

**SPECIES**

Canine

**BREED**

Cockapoo

**SEX**

Neutered male

**AGE**

2013

**WEIGHT**

23 lbs

**INTERPRETED BY**

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

**HOSPITAL NAME**

Perry Hall AH

**REFERRING VET**

Dr. Hatzigiannakis

**INVOICE**

92247

**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 prostate is normal in size (0.52 cm) and shape for this neutered male dog. The parenchyma is homogenous and the external margins are smooth. The prostatic urethra appears normal with no evidence of irregularity, invasion, mass effect or calculi.

The left kidney has a normal shape and size (4.77 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 (5.0 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. 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 0.51 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 normal in size, and echogenicity 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. There are two, small, hyperechoic nodules visualized in the parenchyma and measured 0.95 cm and 0.74 cm. 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 is moderately dilated with fluid and irregular shadowing material most consistent with normal ingesta and gas. 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 layering 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 and the jejunum measured as normal (0.39 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 normal and isoechoic to surrounding 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**

### **PRIMARY FINDINGS:**

- Hypoechoic, prominent pancreas with mild, peri-pancreatic inflammation. The pancreatic changes are most consistent with mild pancreatitis/pancreatic infiltration. I recommend fPLI testing and continued monitoring for improvement or possible development of a pancreatic abscess. Consider FNA if not improving.
- Large heterogenous liver with two hyperechoic nodules. 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.

### **SECONDARY FINDINGS:**

- Shadowing material in the gastric lumen. Correlate these findings with feeding history and abdominal radiographs. This could be consistent with ingesta or shadowing foreign material.

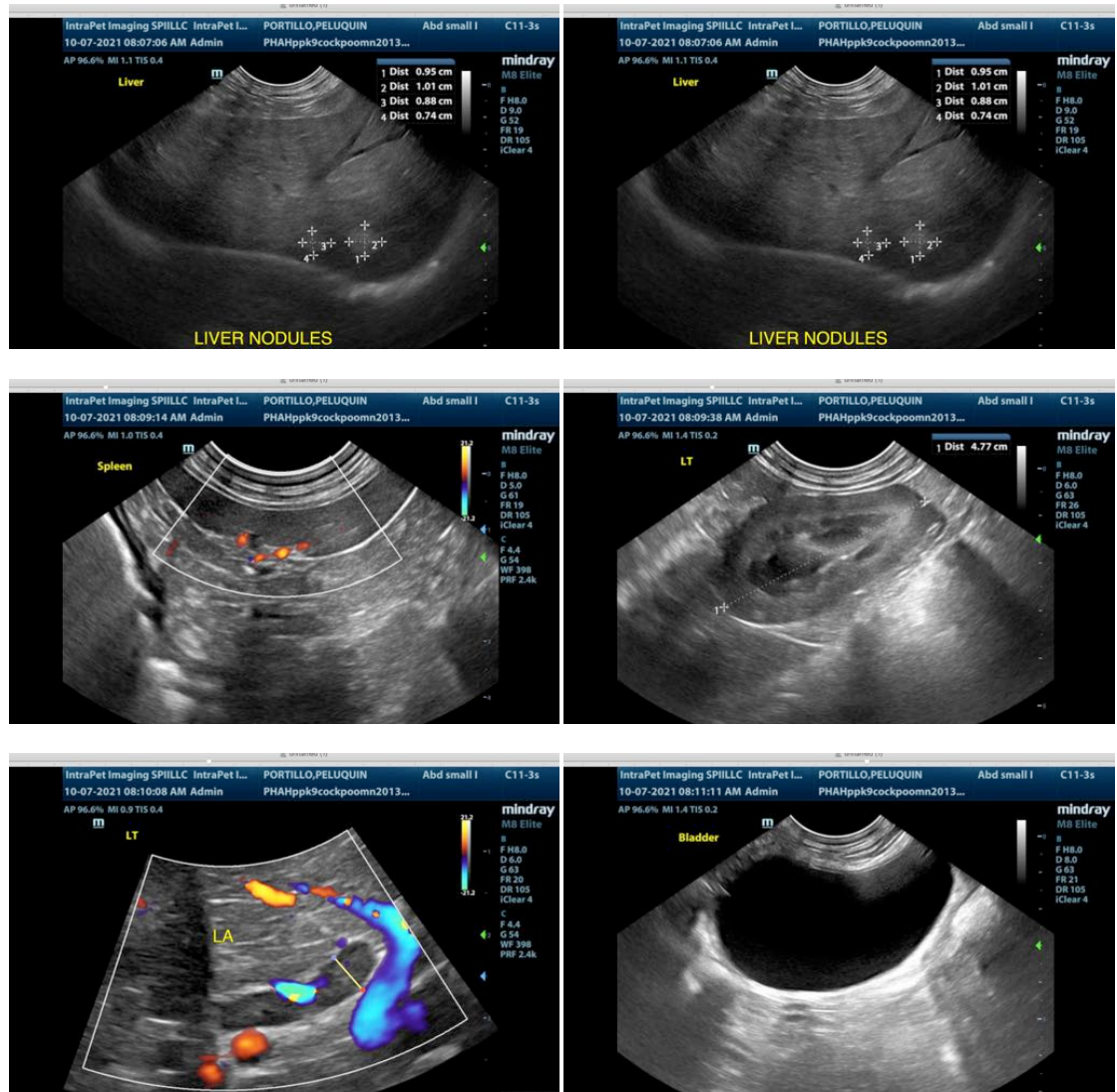
## **INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

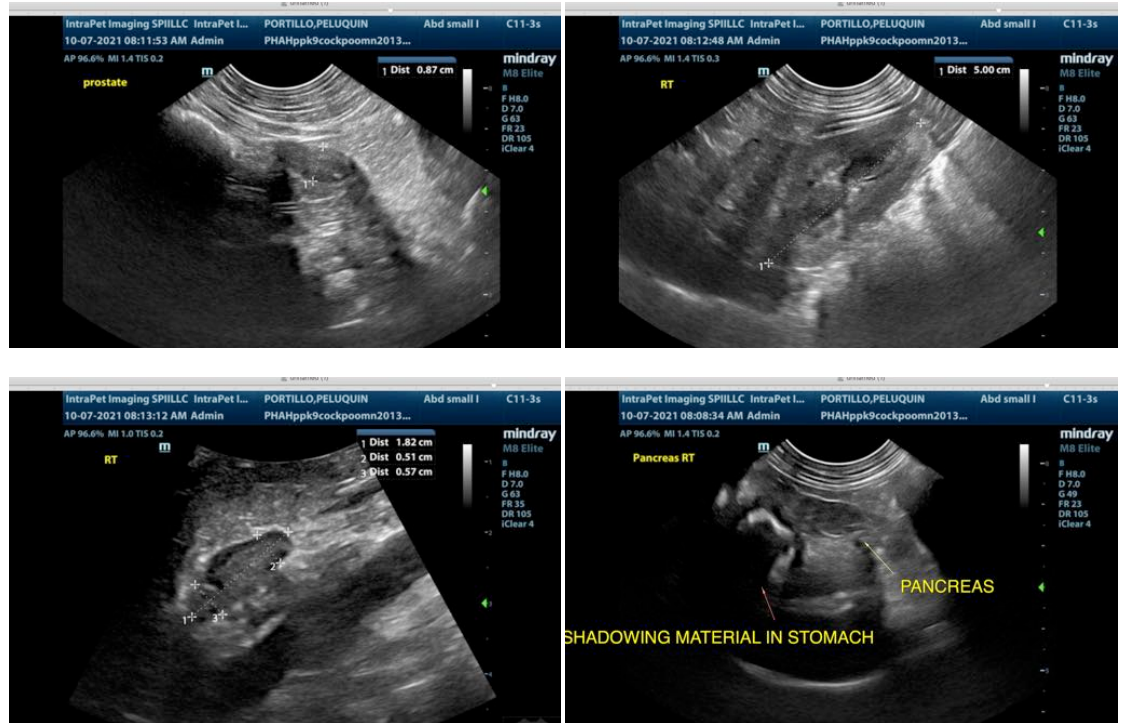
The pancreas is prominent and appears mildly inflamed. Correlate with clinical signs as I find that a dog with true abdominal pain is unlikely to eat and is generally lethargic whereas back pain can cause reduced motility,

mobility, but often appetite is left intact.

The liver is large and heterogenous with two hyperechoic nodules. General hyperechoic nodules are less concerning than hypoechoic nodules, but these should be monitored as neoplastic differentials cannot be excluded. Neoplastic differentials cannot be excluded. For further evaluation of the ALP elevation consider:

- Consider close evaluation of history for possible toxic changes, examine medications, diet, dietary indiscretion, etc.
- If not already done consider pre and post prandial bile acids to evaluate liver function.
- Consider GI panel with a PLI, TLI, cobalamin and folate to further evaluate for pancreatic inflammation and small intestinal disease causing secondary hepatopathy.
- If the ALP is significantly elevated relative to the ALT and symptoms consistent with Cushing's are present then consider adrenal function testing.
- Consider FNA if round cell neoplasia is on your differential list i.e. there is associated lymphadenopathy, weight loss, etc.





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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