

**DATE**

10/5/21

**PRESENTING CLINICAL SIGNS**

Initially presented on 9/3/21 for an increase in coughing that is exacerbated by exertion. There was no increase in respiratory rate or effort noted by owner. Additionally, Piper had been shaking her ears and rubbing her head on the carpet. On physical examination, Piper is 5+/5 BCS, had muffled heart sounds, end expiratory wheezes, and a dry cough. Abdominal palpation was tense and due to obesity, not fruitful otherwise. Piper also has a stiff gait and a superficial skin mass above her right eye. Both ears were found to have yeast otitis externa.

**PATIENT**

Piper Evelly

Chest radiographs were obtained and sent out for review and a Senior profile was run. Suspect coughing secondary to collapsing trachea. R

**SPECIES**

Canine

Lab work revealed, both ALT and ALP increases.  
Bile Acids today.

**BREED**

Jack Russell

Current Medications:

Lab Results: Lab results sent to intrapetstaff email. CBC: Platelets  $471 \times 10^3/uL$ . CHEMISTRY: Total Protein 8.5g/dL. Globulins: 4.4g/dL.

ALT 436 IU/L. ALP 273 IU/L. BUN 37 mg/dL. Calcium 12.4 mg/dL.

Potassium 5.6 mEq/L. Chloride 101 mg/dL. Cholesterol 344 mg/dL.

Triglycerides 1108 mg/dL.

**SEX**

Spayed Female

Radiographs: Radiology report still pending. Images sent to intrapet staff email.

Date of Previous IntraPet Ultrasound:

Sedation: not needed

Stat Report: not requested

**AGE**

2010

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN****WEIGHT**

31 lbs

**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.

**INTERPRETED BY**

Kathleen Sennello  
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ACVIM (Small Animal  
Internal Medicine)

The left kidney has a normal shape and size (4.9 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. Pinpoint, non-obstructive nephroliths were noted. There is no evidence of pyelectasia, infarcts or hydroureter. Renal vasculature is normal.

**HOSPITAL NAME**

Bel Air VH

The right kidney has a normal shape and size (4.23 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. Pinpoint, non-obstructive nephroliths were noted. There is no evidence of pyelectasia, infarcts or hydroureter. Renal vasculature is normal.

**REFERRING VET**

Dr. Young

**Adrenal Glands**

The left adrenal gland is normal in size measuring 0.68 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.

**INVOICE**

92177

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 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 is a large, expansile, hyperechoic, irregular mass effect visualized in the left side of the liver measuring 7.7 x 6.46 cm. The gallbladder lumen is moderately distended. The wall of the gallbladder is not thickened and has a smooth mucosal surface. There is a moderate amount of non-organized echogenic debris. The cystic and common bile ducts are normal/not visible.

### ***Gastrointestinal***

The stomach contains minimal luminal contents. It measures at a normal thickness of <0.7cm 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. The duodenum measured as normal (0.39 cm) and the jejunum measured as normal (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 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**

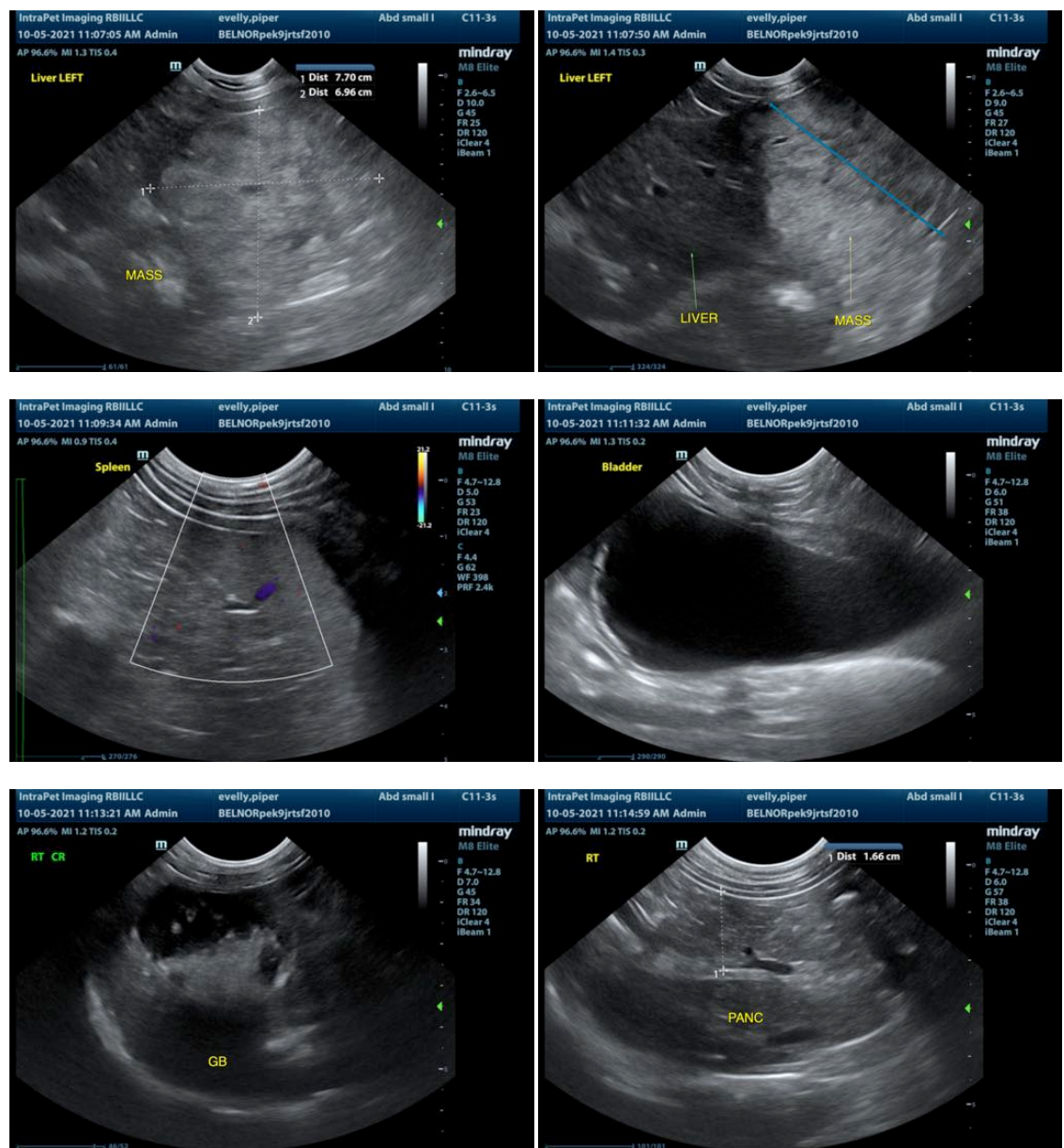
### **PRIMARY FINDINGS:**

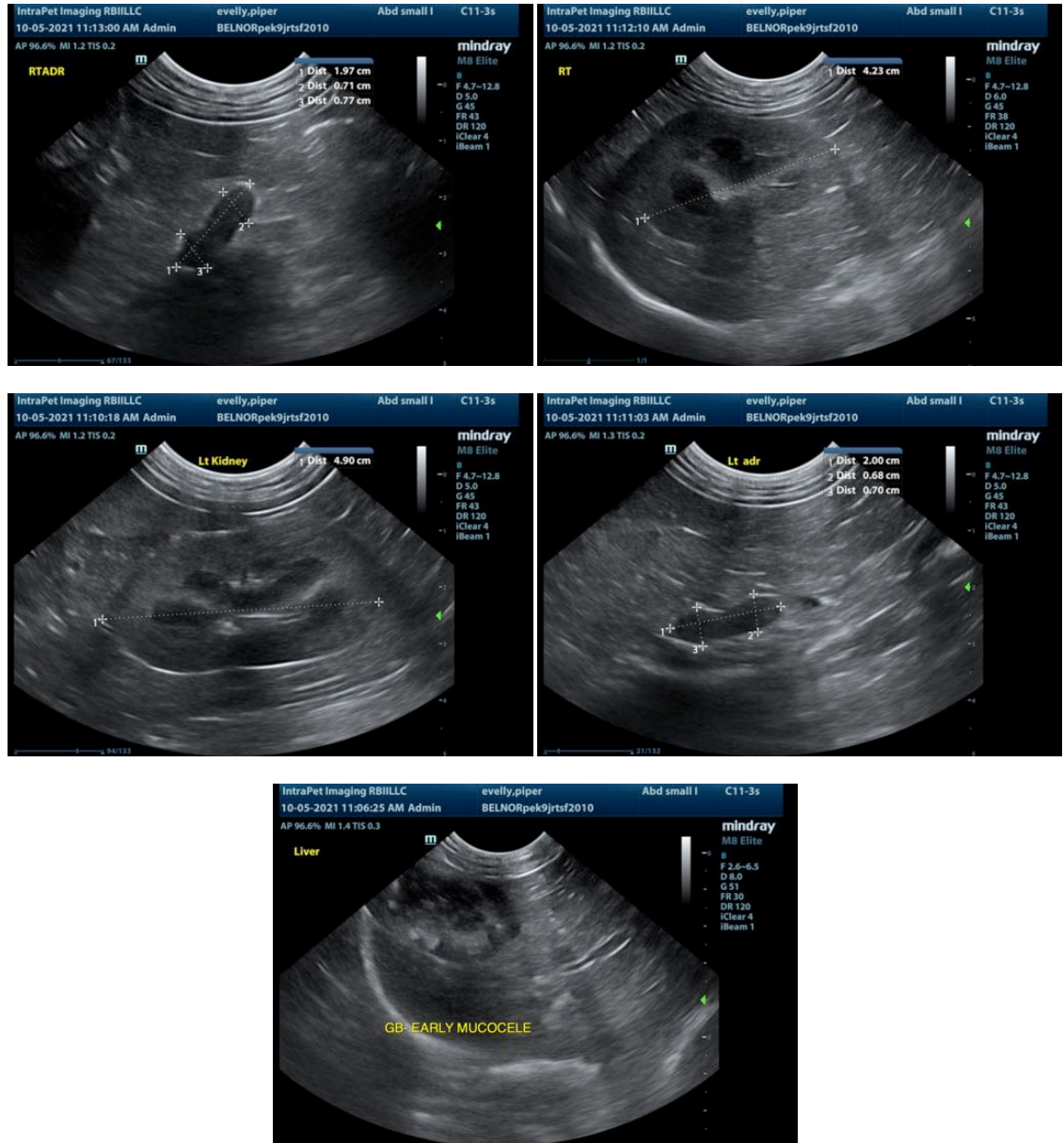
- Large, hyperechoic, irregular, left-sided liver mass. This mass is most consistent with a primary hepatic mass (adenoma or carcinoma, other possibilities exist).
- Large amount of debris in the gallbladder with early organization and wall thickening. Most consistent with an early mucocele.
- Pinpoint nephroliths in both kidneys. The hyperechoic mineralized foci observed at the corticomedullary junction of the left/right kidney are consistent with small, non-obstructive nephroliths.

### INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

There is a large liver mass evident. You can consider a FNA of this mass to look for unexpected findings, but it appears most consistent with a primary hepatic mass. I recommend three view thoracic radiographs and referral to a veterinary surgeon for removal +/- preoperative CT scan. With surgery large, primary hepatic masses can have a favorable prognosis.

Additionally the gallbladder has a large amount of sludge and early wall thickening. I recommend starting Ursodiol and close monitoring with ultrasound and liver values.





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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