

**DATE PRESENTING CLINICAL SIGNS**

8/12/22

Patient presented for dental prophy. Pre-op BW showed elevation of liver enzymes. History of squamous cell carcinoma RF digit and heart murmur.

PATIENT

Peanut Sanders

Current Medications: None.

Lab Results: 2/10/22 Chem 10- ALKP 755, ALT 162. 8/8/22- Chem 10- ALKP >2000, ALT 852. Bile acids pending.

SPECIES

Canine

Date of Previous IntraPet Ultrasound: No previous.

Sedation: Not required to complete full diagnostic ultrasound.

Stat Report: Not requested.

BREED

Cockapoo

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**SEX**

Spayed Female

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.

AGE

12/10/09

The left kidney has a normal shape and size (4.31 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.

WEIGHT

17.5 Pounds

The right kidney has a normal shape and size (5.08 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.

INTERPRETED BY

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

Adrenal Glands

The left adrenal gland is normal in size measuring 0.83 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.

IMAGING PERFORMED BY

Andi Parkinson RDMS

The right adrenal gland is normal in size measuring 0.74 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.

HOSPITAL NAME

Hickory Vet Hospital

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.

REFERRING VET

Dr. Lyle

Liver

The liver is large in size and irregular. 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, isoechoic mass effect visualized in the right side of the liver measuring 5.85 cm x 5.92 cm.

INVOICE

40406

The gallbladder lumen is moderately distended. The wall of the gall bladder 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 <0.7cm 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 (between 0.3-0.5cm in wall thickness) and the jejunum measured as normal (between 0.2-0.47cm.) 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 a discrete hypoechoic lesion visualized with what appears to be a small cystic center in the region of the pancreas measuring 0.66 cm x 0.85 cm. 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

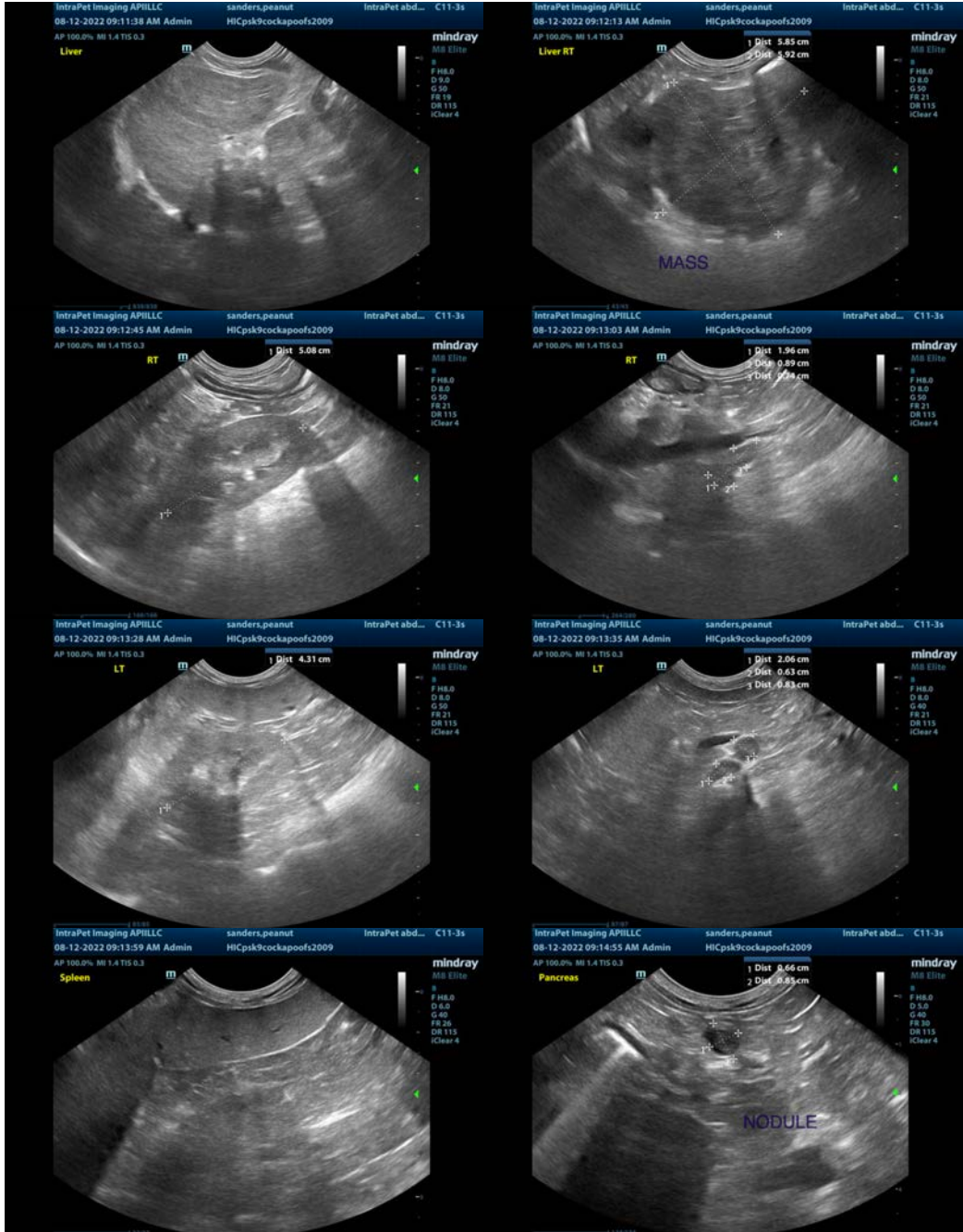
- Large, irregular, heterogeneous liver with large isoechoic mass effect – most consistent with a primary liver mass (hepatoma, carcinoma, etc.).
- Discrete hypoechoic nodule visualized in the region of the pancreas – This could be consistent with a pancreatic cyst, nodule, or even a lymph node in the region. Consider a fine needle aspirate.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The liver is large and heterogeneous and there is a large, isoechoic mass effect on the right side of the liver. This is most consistent with a large primary liver mass. These masses often have somewhat benign behavior, and if surgically resected can have a good prognosis. Recommend a contrast CT scan to further evaluate the extent of this lesion and to evaluate for possible surgical resection. If surgery would not be considered, consider a fine needle aspirate. Additionally, bile acids are a good idea, as the remaining liver remains abnormal and heterogeneous.

There is a discrete hypoechoic, slightly cystic lesion visualized in the region of the pancreas. The nature of this lesion is unclear, as there is no surrounding inflammation and it appears quite discrete. Additionally, this could be a lymph node, but no other enlarged lymph nodes are visualized in the abdomen. If possible, recommend a fine needle aspirate for cytology. If this is not an option, consider recheck evaluation in 6-8 weeks. Alternately, you could reevaluate this with CT scan at the time of CT for the hepatic lesion, and consider removal/biopsy at surgery.

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/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)
kathleen.sennello@sonopath.com