

**DATE PRESENTING CLINICAL SIGNS**

9/14/21 History: Presented 9/9/21 for PU/PD, 15lb weight loss since 04/19, O was not trying to get her to lose weight. PE: BCS 4/9, grade 3 dental disease, bilateral stifle crepitus otherwise PE wnl. Blood work showed hypercalcemia, elevated SDMA and hyperglobulinemia.

PATIENT

Pearl Schlegel

Current Medications: No current medications.

Lab Results: (9/10/21) SDMA (H) 18, Ca (H) 14.8, TP (H) 9.6, Glob (H) 7.5; USG: 1.009; ionized calcium pending.

SPECIES

Canine

Radiographs: Not provided by the veterinarian.

Date of Previous IntraPet Ultrasound:

Sedation: Dexdomitor and Butorphanol administered prior to scan.

Stat Report: STAT report not requested by the veterinarian.

BREED

Boxer X

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

9/3/10

The left kidney has a normal shape and size (7.0 cm). Overall echogenicity is slightly hyperechoic with poor corticomedullary distinction and a typical 1:3 cortex:medulla ratio. There is no evidence of perinephric inflammation or effusion. Moderate pyelectasia noted at 0.6 cm. There is no evidence of nephroliths, infarcts or hydroureter. Renal vasculature is normal.

WEIGHT

55.5 Pounds

The right kidney has a normal shape and size (7.14 cm). Overall echogenicity is slightly hyperechoic with poor 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

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Adrenal Glands

The left adrenal gland is normal in size measuring 0.69 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.

HOSPITAL NAME

Perry Hall AH

The right adrenal gland is normal in size measuring 0.84 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.

REFERRING VET

Dr. Baer

Spleen

The spleen is large in size. The spleen echotexture is heterogenous and mottled, the splenic capsule is smooth with no irregularities. The blood flow through the hilus and splenic parenchyma appears normal. There are numerous ill-defined, hypoechoic nodules visualized within the splenic parenchyma. They do not appear to deviate the capsule. The largest measured 0.98 cm.

INVOICE

25386

Liver

The liver is subjectively normal in size, and echogenicity with smooth peripheral margins. The parenchyma is homogenous echotexture. The visible portions of the vasculature and biliary tract appear normal. A hyperechoic, cavitated lesion on the right side of the liver measures 7.38 cm x 6.96 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 primarily anechoic. The cystic and common bile ducts are normal/not visible.

Gastrointestinal

The stomach is moderate dilated with gas, creating a shadowing effect, which makes full visualization difficult. Visualized areas of wall measure 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 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.

PRIMARY FINDINGS

- Large, cavitated liver mass in the right side of the liver – A large heterogeneous mass with cavitations is present within the hepatic parenchyma. Differentials for the mass include neoplasia (hemangiosarcoma, carcinoma, adenoma, etc.), as well as a true cyst or abscess (seems less likely).
- Mottled spleen with hypoechoic nodules – There are several, non-cavitated, hypoechoic splenic nodules visualized. Differentials include lymphoid hyperplasia, extramedullary hematopoiesis, infiltrative neoplasia, inflammation, other. Cytology or histopathology would be necessary to get a definitive diagnosis.

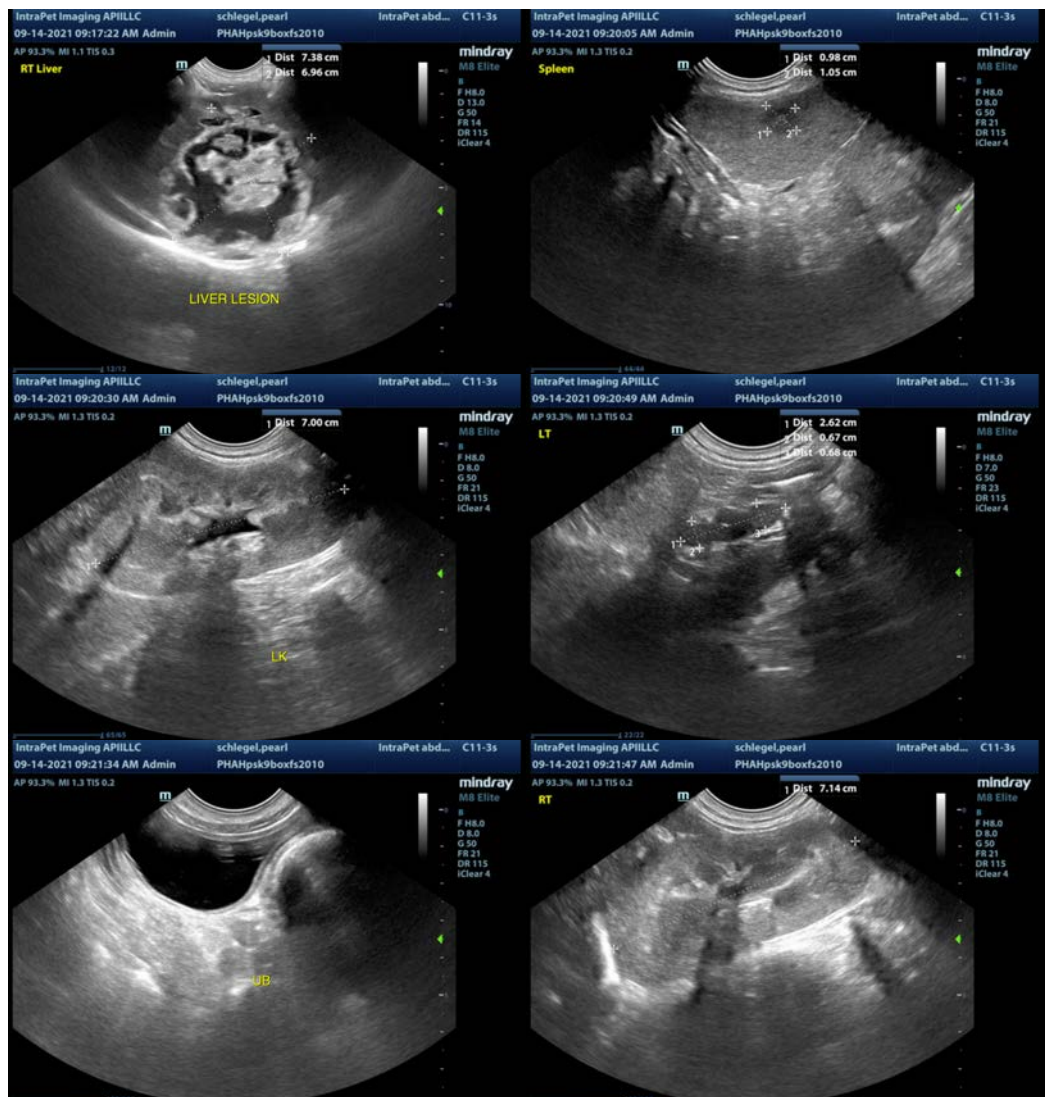
SECONDARY FINDINGS

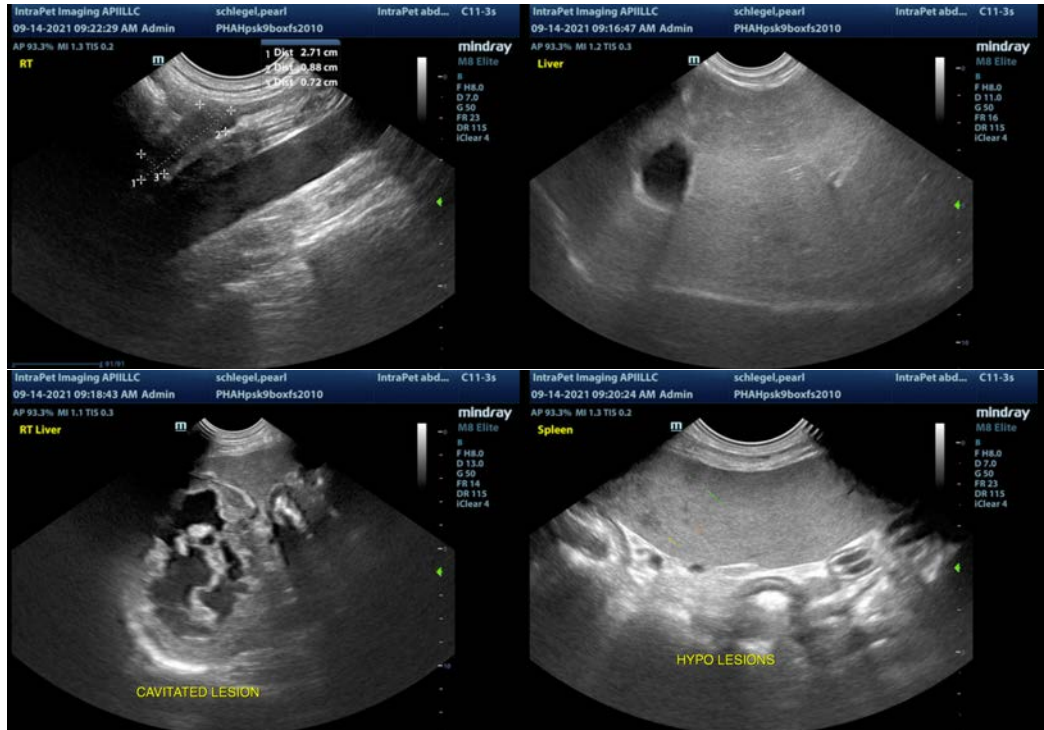
- Decreased corticomedullary distinction in both kidneys – Mild loss of corticomedullary distinction in both kidneys could be consistent with chronic degenerative disease or interstitial nephrosis.
- Left-sided pyelectasia – Pyelectasia of the left/right kidney could be consistent with pyelonephritis, chronic renal disease, secondary to PU/PD or fluid therapy (if applicable), other.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

The left kidney appear dilated. An obvious obstruction is not visualized. Consider urinalysis and culture to look for evidence of pyelonephritis.

There is large lesion within the liver. The nature of this is unclear, but it is concerning and does appear somewhat inflamed, so it may be responsible for the elevated globulin reported. Additionally, the spleen is mottled and irregular. Recommend workup for possible surgical removal of the hepatic lesion, likely including advanced imaging and referral to a veterinary surgeon. You could consider a fine needle aspirate of the spleen or splenectomy at the same time. You may want to consider vector borne disease testing prior to considering removing the spleen. Recommend rectal exam to screen for an anal gland tumor, and an ionized calcium PTH or PTHrP level (pending per history) to further evaluate the elevated calcium to try to decide if this is paraneoplastic, hyperparathyroidism, etc. Recommend 3-view thoracic radiographs. As an additional note, several images revealed echogenic blood flow. This can be a normal finding in some dogs, but in the heart "smoke" can be related to a hypercoagulable state. Consider evaluation of urine protein levels and consider protein electrophoresis to further evaluate elevated globulin level, as there may be a slightly increased risk for thromboembolic events.





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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