

**DATE PRESENTING CLINICAL SIGNS**

7/19/23

Routine BW performed for dental procedure, at time of exam pet had lost 5 lbs unexpectedly. ALT and ALP severely elevated on BW along with albumin and Globulins. ALT just over 1k.

PATIENT

Scooter Means

Current Medications: None.

Lab Results: ALT - 1,032, ALP - 6,540, Albumin 4.2, Globs 4.3

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.

SPECIES

Canine

BREED

Pembroke Corgi

SEX

Neutered Male

AGE

5/13/13

WEIGHT

38 Pounds

INTERPRETED BY

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MS, Diplomate ACVIM
(Small Animal Internal
Medicine)

HOSPITAL NAME

Airpark AH

REFERRING VET

Dr. Kable

INVOICE

44137

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 visualized areas of prostate and surrounding tissue appear normal. Unfortunately, the prostate is not fully visualized likely due to its intrapelvic location. Correlate with rectal exam findings.

The left kidney has a normal shape and size (6.03 cm) with numerous moderate sized non-obstructive nephroliths, an example of which measures 0.46 cm. Overall echogenicity is normal with adequate 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, infarcts or hydroureter. Renal vasculature is normal.

The right kidney is normal in size at 6.5 cm with numerous moderate sized non-obstructive nephroliths, one of which measures 0.26 cm. Overall echogenicity is normal with adequate 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, infarcts or hydroureter. Renal vasculature is normal.

Adrenal Glands

The left adrenal gland is borderline "plump" measuring 0.90 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 borderline large measuring 1.02 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 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 very large,

expansile, partially cystic mass effect visualized associated with the liver, measuring >13.18 cm x 7.29 cm. The mass effect appears larger than the remaining normal appearing liver tissue. Additionally, in some of the areas of liver tissue not involved in the large primary mass effect, there are other hypoechoic lesions. One such mass effect on the left side measures 3.55 cm x 3.5 cm. Two additional ill-defined hypoechoic nodules are visualized measuring 1.4 cm and 1.12 cm in diameter.

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 <0.7cm 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 area of 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. There are occasional prominent mesenteric lymph nodes. There is a cystic lymph node visualized that measures 1.76 cm x 1.12 cm with the cystic region within it measuring 0.75 cm. The omentum is generally of normal echogenicity.

ULTRASONOGRAPHIC FINDINGS

- Bilateral adrenomegaly – The bilateral adrenomegaly could be consistent with bilateral hyperplasia (e.g., secondary to pituitary-dependent hyperadrenocorticism), bilateral infiltrative neoplasia, inflammatory adrenal disease, other. Correlation with clinical findings is recommended.
- Bilateral non-obstructive nephrolithiasis – The hyperechoic mineralized foci observed at the corticomedullary junction of the left/right kidney are consistent with small, non-obstructive nephroliths.
- Large, expansile, mixed echogenic cystic liver mass with additional smaller hypoechoic masses/nodules. The very large hepatic mass lesion appears to encompass approximately 75% of the visible hepatic tissue. This is most consistent with a primary hepatic mass lesion (adenoma, carcinoma, other). The additional smaller hypoechoic masses/nodules could represent benign or neoplasia lesions.

- Occasional prominent mesenteric lymph nodes and a cystic mesenteric lymph node – The prominent abdominal lymph nodes are most consistent with reactive lymphadenitis or lymphoid hyperplasia. Neoplastic infiltration is considered less likely.

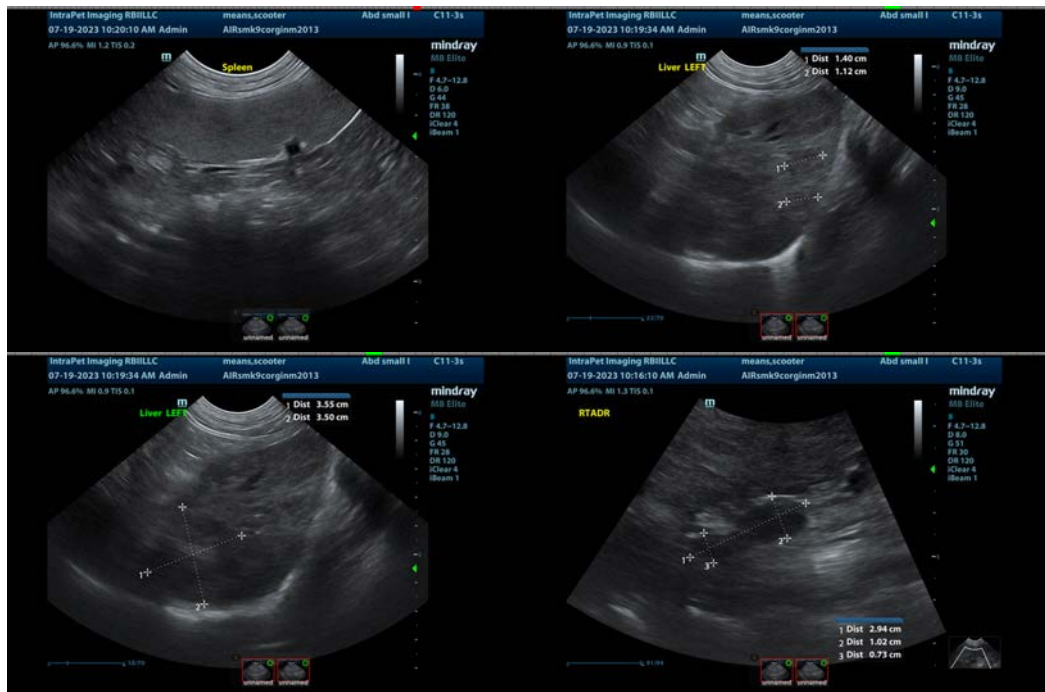
INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

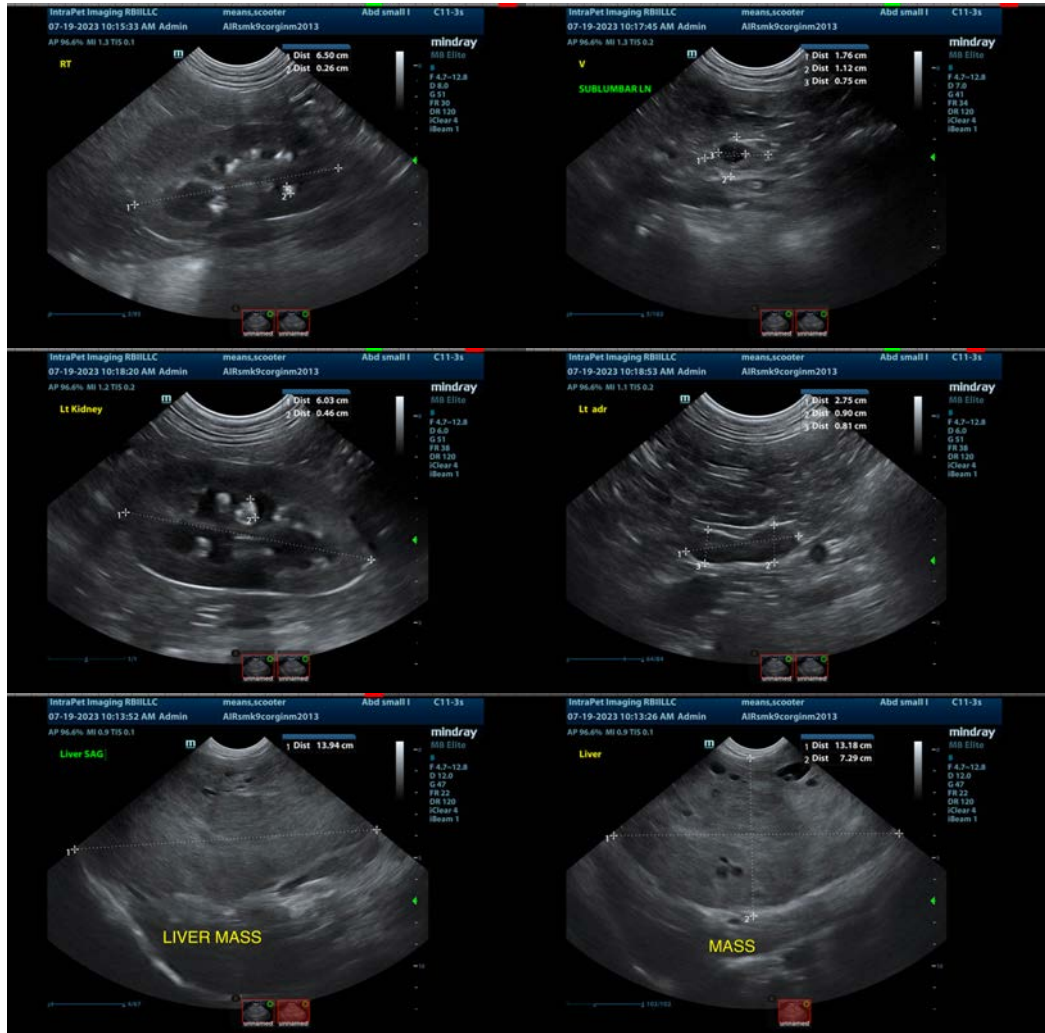
The majority of the liver is comprised of a large, mixed echogenic, mildly cystic, rounded mass lesion. A mass this large is likely either benign or a slow-growing carcinoma. Additionally, there are some small mass lesions and nodules that could represent benign or neoplastic lesions. If surgical resection were to be considered, you could consider a contrast CT scan to see if this is feasible, or if this could be debulked.

Recommend three view thoracic radiographs to evaluate for possible concurrent thoracic disease/involvement.

Both adrenal glands are borderline enlarged. This could be consistent with mild Cushing's disease or could represent anatomic variation.

Both kidneys have moderate sized shadowing nephroliths, but there is no evidence of obstruction at this time.





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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