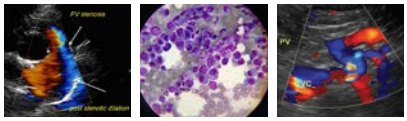
IMAGING PERFORMED BY

IntraPet.com



SonoPath

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DATE

6/23/22

PATIENT

Raven Harris

SPECIES

Canine

BREED

Rat Terrier

SEX

Spayed Female

AGE

2/22/11

WEIGHT

7.89 kg

INTERPRETED BY

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

IMAGING PERFORMED BY

Stephanie Pearce RDCS, RVT

HOSPITAL NAME

Banfield Columbia

REFERRING VET

Dr. Landon

INVOICE

39019

PRESENTING CLINICAL SIGNS

PU/PD.

Current Medications: Simparica Trio, Dasuquin Advanced (?)
Lab Results: 5/14/22: ALP 2833 (23-212); ALT 451 (10-125); Chol 10.5 (110-320); Urine spec grav 1.022 (1.016-1.08). 2/18/22: ALP >2000; ALT 351 (10-125). 1/10/22: ALP 3055; ALT 395. 3/12/21: LDDS: Sample 1: 2.6 (1-50), Sample 2: 0.9 (0-1.4), Sample 3: 0.7 (0-1.4)
Date of Previous IntraPet Ultrasound: No previous.
Sedation: Not required to complete full diagnostic ultrasound.
Stat Report: Not requested.

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 left kidney has a normal shape and size (4.8 cm) with pinpoint non-obstructive nephroliths. 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 (4.36 cm) with pinpoint non-obstructive nephroliths. 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 large in size measuring 1.09 cm at the cranial pole, 0.48 cm at the caudal pole, and 2.77 cm in length. It is observed in its normal position cranial to the left renal artery. It is somewhat abnormal in appearance in that the cranial pole is enlarged as compared to the caudal pole. Findings are suggestive of a nodule in the cranial pole of the left adrenal gland. No overt vascular invasion is noted.

The right adrenal gland is large in size measuring 0.70 cm at the cranial pole, 0.48 cm at the caudal pole, and 1.71 cm in length. It is observed in its normal position between the cranial aspect of the right kidney and the caudal vena cava. It is abnormal in appearance in that there is a large hyperechoic mass effect in contact with the cranial pole of the adrenal gland measuring 2.68 cm x 2.08 cm. This lesions also contacts the liver. Primary suspicion is that this is a mass effect arising from the cranial pole of the right adrenal gland, but a primary hepatic lesion is also possible. While no overt vascular invasion is visualized, this mass lesion does deviate the vasculature, and advanced imaging is recommended.

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 in size, and normal in 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 hyperechoic mass effect deep on the right side of the cranial abdomen measuring 2.99 cm x 2.9 cm. This lesion could be arising from the caudate pole of the caudate lobe of the liver,

or from the right adrenal gland. Primary differential is a right adrenal mass lesion, but a liver mass lesion is also a possibility.

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 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

- Enlarged cranial pole of the left adrenal gland – This could represent normal anatomic variation, adenoma, or neoplastic lesion (pheochromocytoma, carcinoma, other).

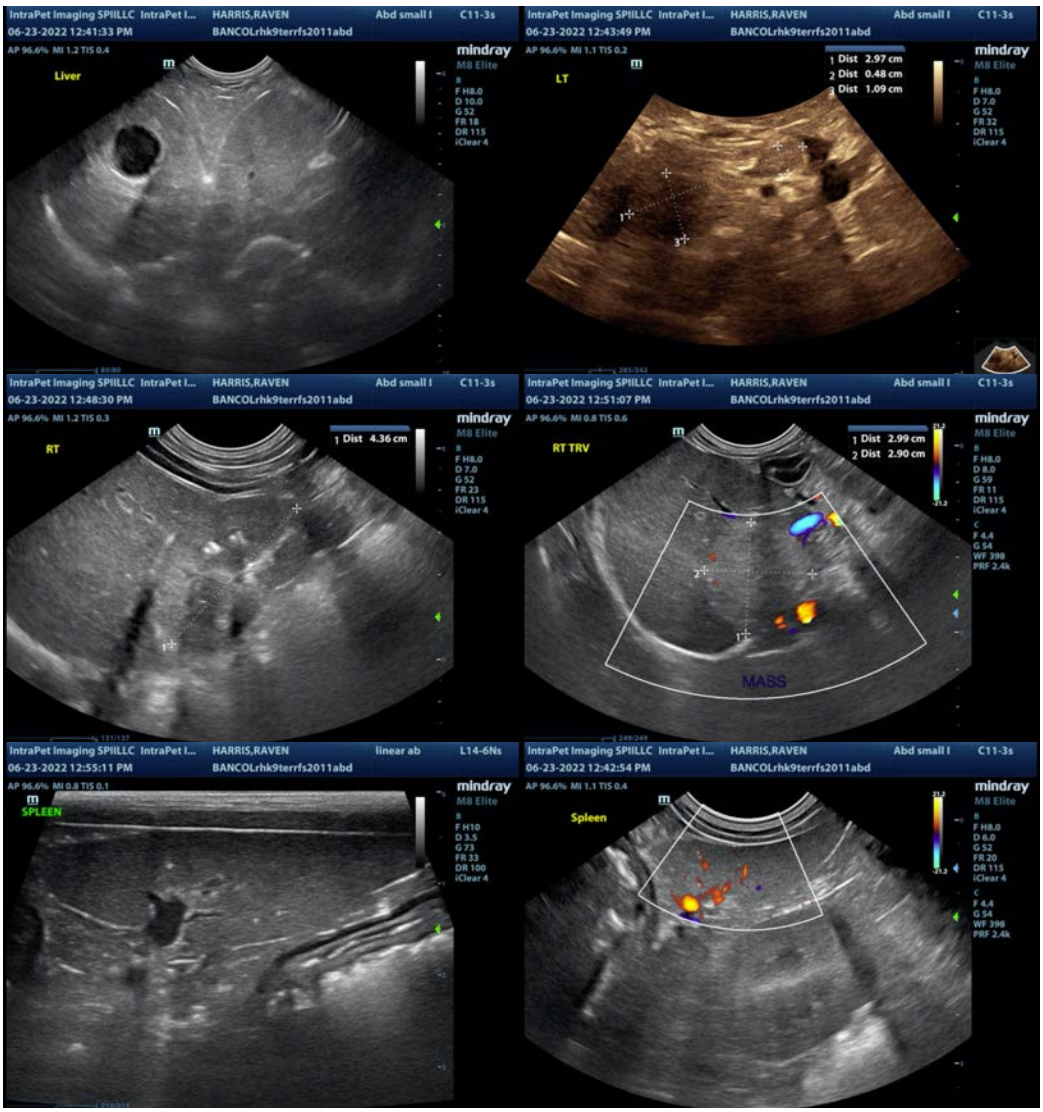
- Large, hyperechoic mass effect in the right cranial abdomen – Primary suspicion is that this mass lesion is arising from the cranial pole of the right adrenal gland, although a hepatic lesion is also possible. Primary differential would be a pheochromocytoma, carcinoma, or adenoma.

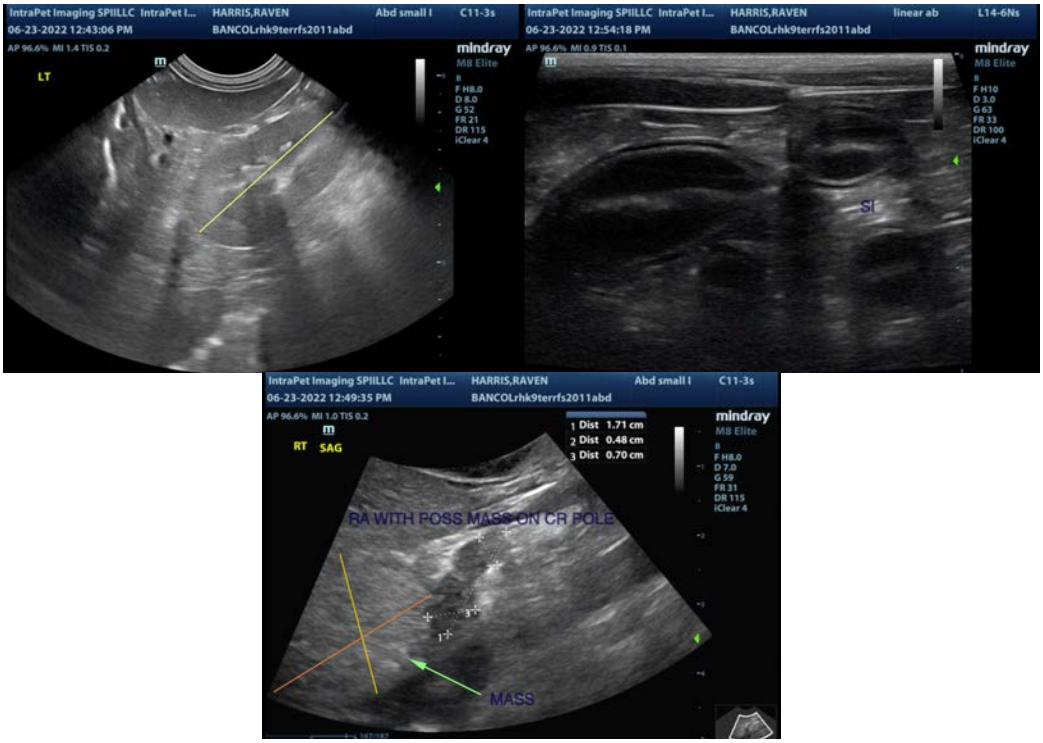
- Large, heterogeneous liver – The diffuse hepatic changes are non-specific and could be consistent with vacuolar hepatopathy, nodular hyperplasia, inflammatory/immune-mediated disease, fibrosis, extramedullary hematopoiesis, toxic hepatopathy (e.g., copper), infiltrative neoplasia (less likely) or other hepatopathy.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

There is an enlarged cranial pole of the left adrenal gland as well as a suspected mass effect arising from the cranial pole of the right adrenal gland. The lesion on the right adrenal gland also contacts the liver, so a hepatic lesion cannot be ruled out as a possibility.

- Recommend adrenal function testing, as a hormone excess is suspected with the symptoms described and the lesions visualized.
- Recommend blood pressure evaluation.
- Recommend urinalysis and culture.
- Recommend 3-view thoracic radiographs.
- Recommend a contrast CT scan to better determine if the right-sided mass effect is adrenal or hepatic in origin and to look for evidenceof vascular invasion at the site of both adrenal glands.
- Based on adrenal function testing and CT results, options for surgical or medical therapy can be explored.





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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