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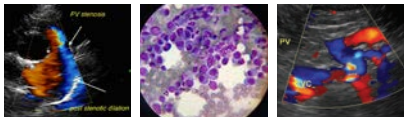

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DATE

11/10/22

PATIENT

Sam Haney

SPECIES

Canine

BREED

Border Collie X

SEX

Spayed Female

AGE

2/2/10

WEIGHT

64.1 Pounds

INTERPRETED BY

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

IMAGING PERFORMED BY

Rachel Brilhart RDMS

HOSPITAL NAME

Abbey Animal Hospital

REFERRING VET

Dr. Kluttz

INVOICE

42708

PRESENTING CLINICAL SIGNS

Seen for ACTH Stim Test for Cushing's, discovered that Sam had lost 10% body wt in the last 7 months. Cushing's has been controlled, but bw showed severe elevations in liver value.

Current Medications: Vetoryl 60mg + 10mg PO SID
Lab Results: See attached.
Date of Previous IntraPet Ultrasound: 5/26/20. See attached.
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 (6.74 cm) with numerous small cortical cysts and a non-obstructive nephrolith visualized measuring 0.36 cm. Overall echogenicity is slightly hyperechoic with mildly reduced 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 has a normal shape and size (6.47 cm) with a non-obstructive nephrolith visualized at 0.64 cm. Overall echogenicity is slightly hyperechoic with mildly reduced 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 large, measuring 1.14 cm at the cranial pole, 1.23 cm at the caudal pole, and 3.61 cm in length. It is observed in its normal position cranial to the left renal artery. It is somewhat abnormal in appearance in that it is large and slightly irregular, but there is no evidence of vascular invasion visualized. (Previous measurements in 2020 – 0.84 cm at the cranial pole and 0.95 cm at the caudal pole.)

The right adrenal gland is large, measuring 2.28 cm at the cranial pole, 1.18 cm at the caudal pole, and 3.77 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 challenging to clearly visualize in this deep chested dog, but I suspect the previously reported hyperechoic lesion is visualized at 2.63 cm x 2.17 cm. (Previous evaluation in 2020 – 2.6 cm at the cranial pole and 1.14 cm at the caudal pole, and the hyperechoic region at 1.78 cm x 1.29 cm.)

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 large, discrete mass effect visualized on the left side of the liver. This measures approximately 4.5 cm x 7.61 cm. It is irregular, mixed echogenic, and largely solid with some small cystic regions. In some images, it has a relatively narrow attachment to the liver.

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 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

- Large, irregular adrenal glands with a hyperechoic region on the right adrenal gland – 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. Both adrenals have enlarged somewhat from the previous measurements and appear slightly irregular. Findings are most consistent with a diagnosis of pituitary dependent hyperadrenocorticism.

- Mildly reduced corticomedullary distinction in both kidneys with small non-obstructive nephroliths – The bilateral renal findings are consistent with age-related change. The hyperechoic mineralized foci observed at the corticomedullary junction of the left/right kidney are consistent with small, non-obstructive nephroliths.

- Diffusely heterogeneous liver with a focal mass lesion – The diffuse changes in the liver are most likely consistent with a vacuolar hepatopathy. The mass lesion is most consistent with a primary hepatic mass lesion (adenoma or carcinoma), although other differentials exist.

- Hyperechoic region in the right adrenal gland – This lesion is somewhat larger but appears relatively stable and likely represents a benign process.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

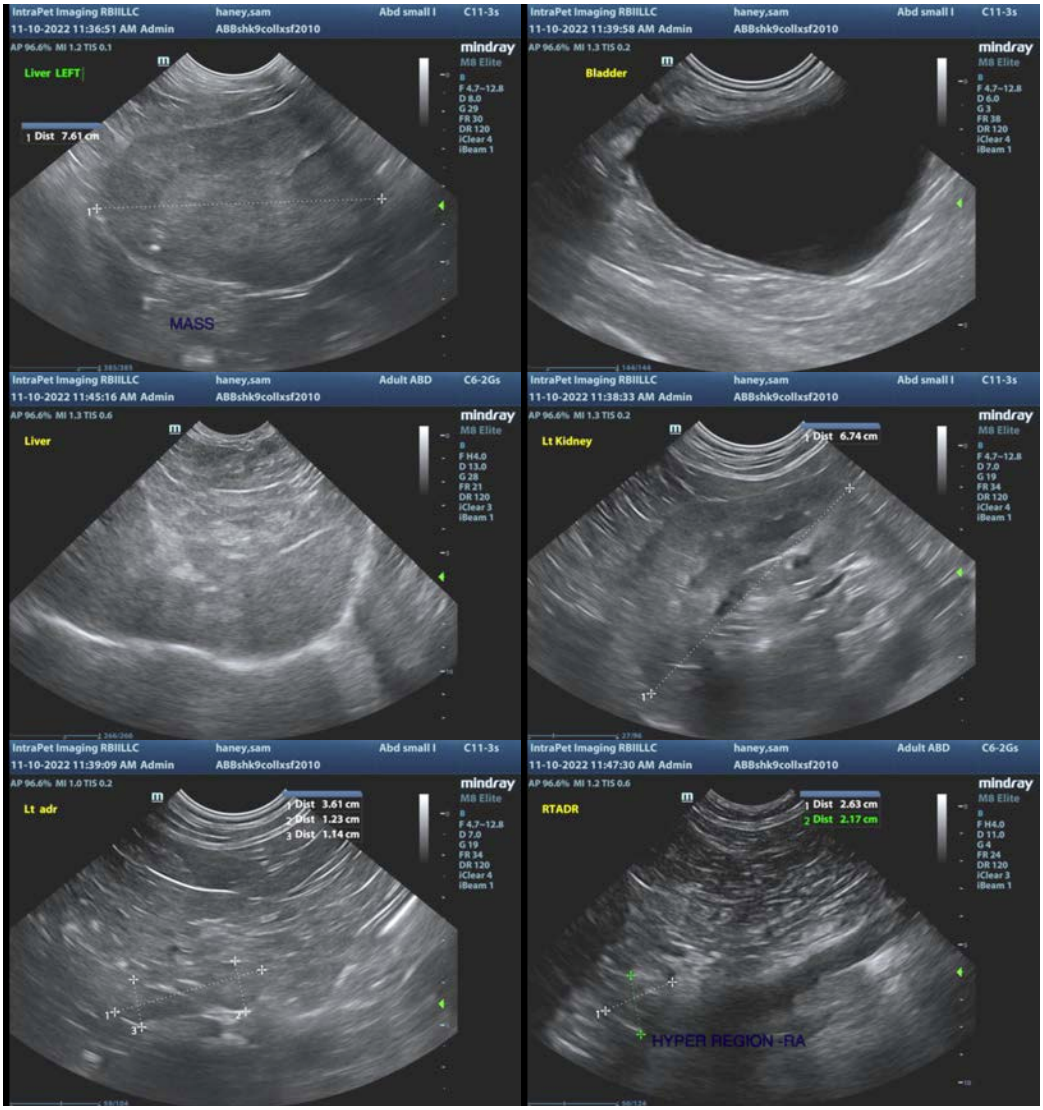
There is a large mass effect visualized in the left side of the liver. This is most consistent with a primary hepatic mass. These can be slow growing and slow to metastasize. Subjectively, this appears to have a

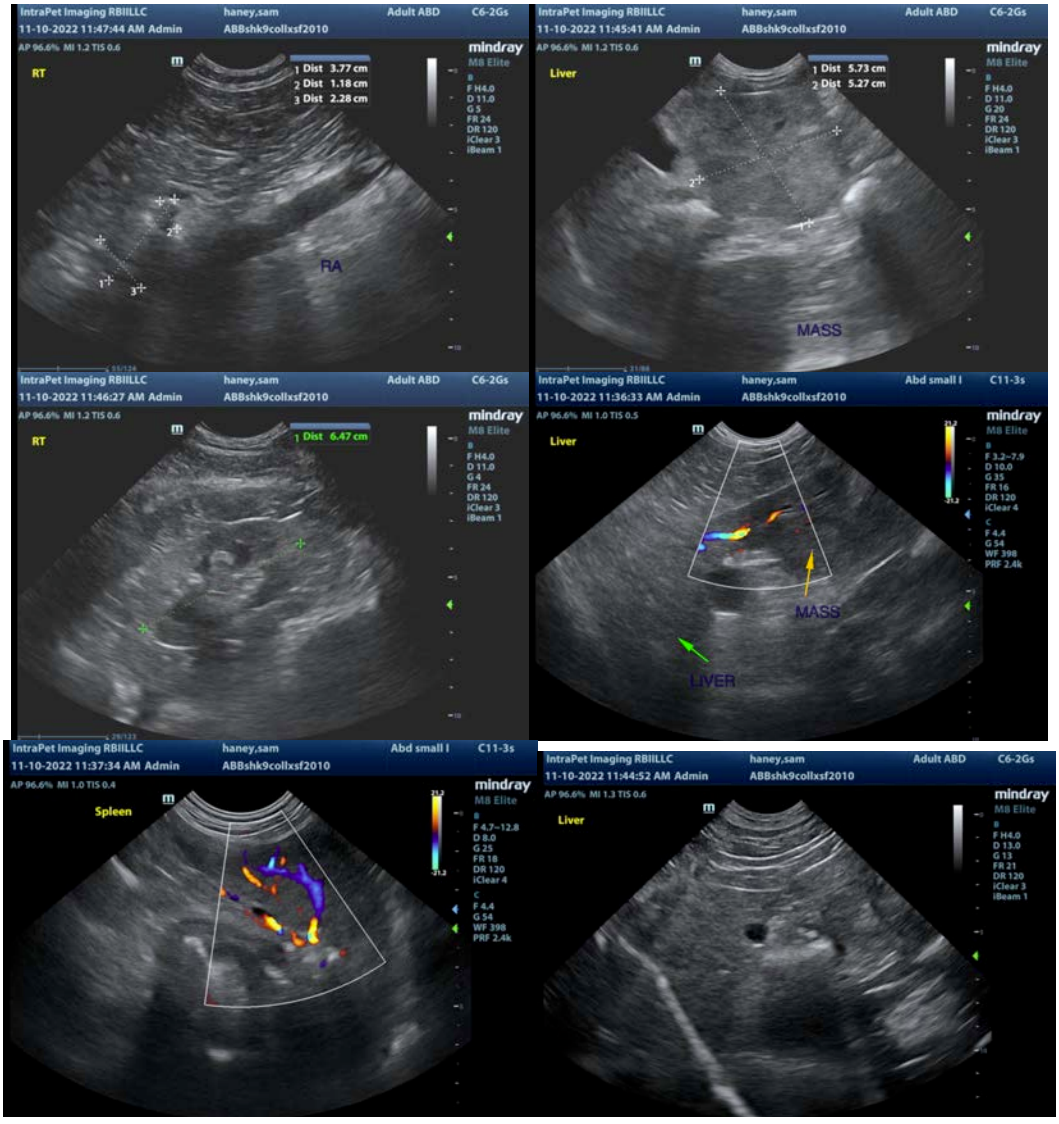
relatively thin attachment, and could be a good candidate for surgery (prognosis can be good with surgical resection). Recommend a contrast CT scan to evaluate the mass, the adrenal glands, and to look for smaller metastatic lesions, and referral to a veterinary surgeon for potential removal.

The adrenal glands are large and irregular. They measure larger than the previous scan, but progressive enlargement often happens on Trilostane therapy, so I suspect this is a normal side effect.

There is mildly reduced corticomedullary distinction in both kidneys with very small non-obstructive nephroliths. These changes are most consistent with chronic progressive age related renal disease. Recommend a baseline blood pressure, urinalysis, and culture.

Recommend three view thoracic radiographs to evaluate for possible 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.

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