IMAGING PERFORMED BY

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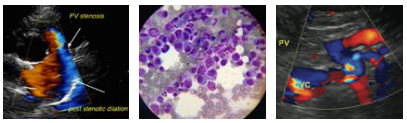

SonoPath
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DATE
2/22/22

PATIENT
Molly Taylor

SPECIES
Canine

BREED
German Shorthair Pointer

SEX
Spayed Female

AGE
1/27/11

WEIGHT
61.5 lbs

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

HOSPITAL NAME
Fork VH

REFERRING VET
Dr. Doherty

INVOICE
96229

PRESENTING CLINICAL SIGNS

Dog lives on farm and has been showing decreased appetite for several months. Will eat but not consistently or will not finish meals. Within the past 2-3 weeks the dog has had numerous episodes of vomiting without any pattern to the episodes. Dog has also been eating substantial amount of grass whenever it has the opportunity. Dog exhibiting higher degree of anxiety and reactivity to sounds and stimuli which she had previously ignored.
Current Medications: Prilosec 20mg QD for 1 week, Cerenia 60mg QD but finished meds 2/19.
Lab Results: Blood profile- N/R noted. BUN 8 (9-31), Alb 2.7 (2.7-3.9, ALT 16 (18-121).
Radiographs: Lateral abdomen- shows some loss of abdominal detail in the mid-cranial abdomen, slight splenic enlargement but normal appearance.
Date of Previous IntraPet Ultrasound: No previous.
Sedation: Not required to complete full diagnostic ultrasound.
Stat Report: Not requested.
Imaging Performed By: Stephanie Pearce RDCS, RVT.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder is mildly to 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 intrapelvic location of the urinary bladder and lack of distension makes full evaluation difficult.

The left kidney has a normal shape and size (6.83 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.

The right kidney has a normal shape and size (6.75cm). 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 1.06 cm at the cranial pole, 0.93 cm at the caudal pole and 2.9 cm in length. It is observed in its normal position cranial to the left renal artery. It is somewhat abnormal in appearance as it is large and mildly irregular/nodular. There is no focal mass effect on the adrenal gland and no obvious evidence of vascular invasion. This is most consistent with a left-sided adrenal mass.

The right adrenal gland is normal in size measuring 0.57 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 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 inter parenchymal hypoechoic nodules visualized. The nodules varied in size from 0.6 cm and 0.8 cm in diameter. There is a larger nodule visualized that measured 1.62 x 1.42 cm.

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. No focal nodules or cystic lesions are observed. The gallbladder lumen is moderately distended. The wall of the gallbladder 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 mass lesions are visualized associated with the stomach, but an abnormal mass lesion is visualized caudal to it (see other).

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 mixed echogenic, hypoechoic mass lesion visualized caudal to the stomach. The location of this mass lesion would be most consistent with either a gastric, splenic or pancreatic lesion. An omental lesion is also a possibility (see other). 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 generally of normal uniform echogenicity other than around the cranial abdominal mass (see other).

Other
No pericardial effusion was seen.

There is a well delineated, hypoechoic, mixed echogenic (almost cavitated appearing) mass lesion visualized caudal to the stomach and medial to the spleen. No direct association with another structure is visualized, but concerns for originating from the pancreas or spleen exists. Additionally it could arise from the stomach or be a free omental mass lesion (clot, lymph node, abscess, other).

ULTRASONOGRAPHIC FINDINGS
PRIMARY FINDINGS:

- Hypoechoic, mixed echogenicity, discrete mass effect in the cranial abdomen. The origin of this structure is unknown. It could be consistent with a tumor, abscess, hematoma, other and could

originate from the spleen, pancreas or other cranial abdominal structure. I recommend FNA (possible approach with patient in dorsal recumbency?).

- Large, irregular left adrenal gland. Left adrenomegaly could be consistent with neoplasia (e.g., adenoma, carcinoma, pheochromocytoma), hyperplasia, inflammation, other.

- Multiple, hypoechoic splenic 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

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

There is a discrete, hypoechoic mass lesion visualized in the cranial abdomen. The origin of this structure is unclear and may be consistent with a mass lesion, clot, abscess, etc. If an window can be visualized for a FNA this would be an option. Otherwise, I would consider a CT scan to better visualize this lesion and the abnormal left adrenal gland. Exploratory surgery can be considered if CT is not an option.

The left adrenal gland appears large and somewhat irregular. I do not see evidence of clear vascular invasion, but this is still possible. The enlarged adrenal glands can be consistent with a benign or malignant mass effect and secrete hormones or be non-active.

- If signs of Cushing's are present, consider adrenal function testing. I prefer an ACTH stimulation test combined with an adrenal panel to the University of Tennessee's endocrine lab to look for atypical adrenal hormones as well as cortisol. (other testing can suffice)

- If adrenal dependent Cushing's is suspected and supported by adrenal function testing consider medical therapy with Lysodren or Trilostane and/or consider surgical removal (recommend referral to a board certified veterinary surgeon and possible pre op CT)-This can be a challenging surgery with significant risk for complication

- Recommend blood pressure evaluation-if hypertensive consider testing catecholamine levels for a possible pheochromocytoma

- Due to the invasive nature of these masses a CT scan is recommended to evaluate for metastasis and vascular invasion.

- If no symptoms of Cushing's are present, consider either referral for surgery or if surgery is not an option consultation with a veterinary oncologist regarding chemotherapeutic options and continued monitoring with ultrasound (in 4-6 weeks) can be considered.

- Some aggressive adrenal tumors can grow quickly and there is risk for acute hemorrhage from vascular invasion.

Keep in mind that adrenal function testing may be of limited utility if this patient is currently sick. If possible I would consider three view thoracic radiographs, blood pressure evaluation and a CT scan in order to better plan the next steps. Otherwise, referral to a veterinarian surgeon would be an option.


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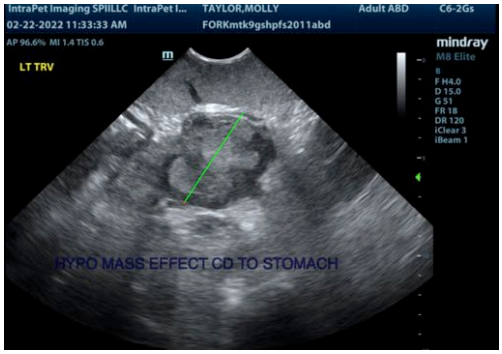
mindray
M8 Elite
SPLEEN HYPO NODULES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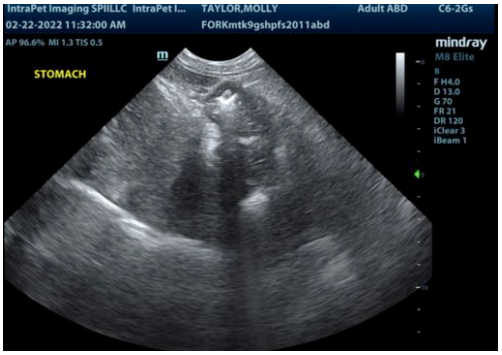
LT TRV
mindray
M8 Elite
HYPO MASS EFFECT CD TO STOMACH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STOMACH
mindray
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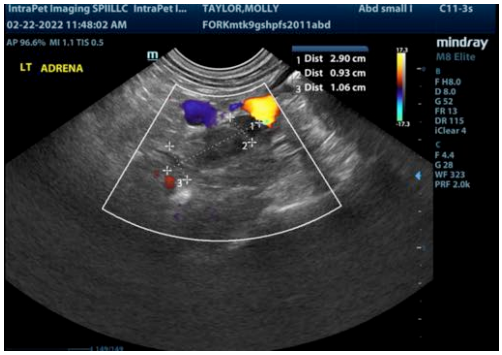
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LT ADRENA
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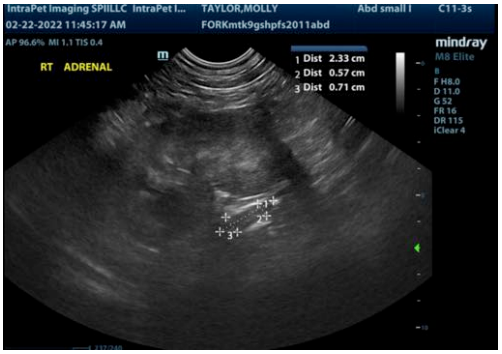
2 Dist 0.93 cm
3 Dist 1.06 cm
mindray
M8 Elite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02-22-2022 11:45:17 AM FORKmtk9gshpfs2011abd
AP 96.6% MI 1.1 TIS 0.4
RT ADRENAL
1 Dist 2.33 cm
2 Dist 0.57 cm
3 Dist 0.71 cm
mindray
M8 Elite


IntraPet Imaging SPIILLC IntraPet I... TAYLOR,MOLLY Adult ABD C6-2Gs
02-22-2022 11:37:52 AM FORKmtk9gshpfs2011abd
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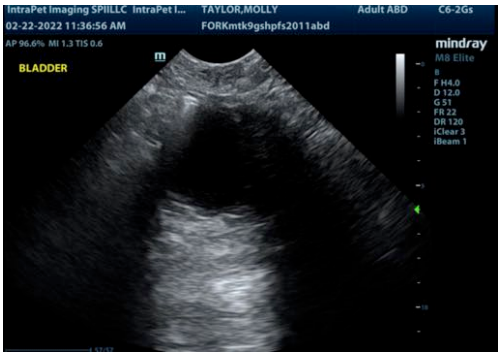
RT
1 Dist 6.75 cm
mindray
M8 Elite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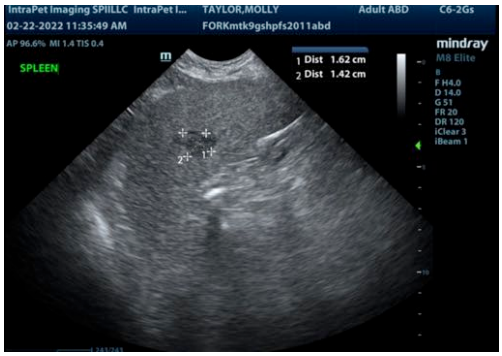
BLADDER
mindray
M8 Elite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AP 96.6% MI 1.4 TIS 0.4
SPLEEN
1 Dist 1.62 cm
2 Dist 1.42 cm
mindray
M8 Elite

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.

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