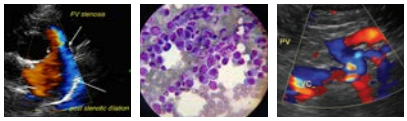
IMAGING PERFORMED BY

IntraPet.com



SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™
1-800-838-4268 info@sonopath.com SonoPath.com

DATE

2/24/23

PATIENT

River Mitchell

SPECIES

Canine

BREED

Labrador Retriever

SEX

Spayed Female

AGE

2/1/12

WEIGHT

103.1 Pounds

INTERPRETED BY

Beth Johnson, DVM DACVIM

HOSPITAL NAME

Animal Emergency Hospital

REFERRING VET

Dr. Hicks

INVOICE

45481

PRESENTING CLINICAL SIGNS

Mr reports that P was normal yesterday 2 days ago had company and P has a lot of treats but was fine yesterday P woke up this morning with a distended abdomen and panting, seemed uncomfortable P did not eat breakfast. O reports no hx of health concerns of medication

Current Medications: None listed.
Lab Results: See attached.
Date of Previous IntraPet Ultrasound: No previous.
Sedation: IV sedation.
Stat Report: STAT requested.
Imaging Performed By: Rachel Brilhart, RDMS.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The urinary bladder is moderately distended with anechoic contents. No masses, inflammatory changes, echogenic sediment or cystoliths are observed. The urinary bladder, trigone and visible pelvic urethra are normal in thickness with a smooth mucosal surface.

The right kidney is normal in size (6.39 cm), shape and echogenicity. It has smooth peripheral margination. There is a normal 1:3 cortex to medulla ratio with appropriate corticomedullary distinction. There is no evidence of pyelectasia, mineral or infarcts observed.

The left kidney is normal in size (7.49 cm), shape and echogenicity. It has smooth peripheral margination. There is a normal 1:3 cortex to medulla ratio with appropriate corticomedullary distinction. There is no evidence of pyelectasia, mineral or infarcts observed.

Adrenal Glands

The right adrenal gland is plump/swollen (2.39 cm long x 1.09 cm at the cranial pole and 1.17 cm at the caudal pole) with normal shape and contour. No evidence of capsular invasion. Some a parenchymal heterogenicity is present without concerning capsular distortion. Visible surrounding vasculature appears normal.

The left adrenal gland is enlarged (3.85 cm long x 2.52 cm thick) with moderate heterogeneous parenchymal changes. Swollen capsular expansion is noted, with one area of suspect or emerging capsular escape. Vascular invasion is not definitively visualized but cannot be ruled out. Scant mineralization is also noted within the adrenal mass.

Spleen

Spleen is generally normal in size and shape with a smooth capsular contour. Parenchyma is diffusely nodular in appearance characterized by small discrete hypoechoic nodules. Splenic vasculature appears normal.

Liver

Liver is subjectively enlarged with mildly irregular margins. Parenchyma is heterogenous characterized by multiple poorly defined hypoechoic nodules within otherwise hyperechoic liver parenchyma. Visible vasculature and biliary tree appear normal without distension or congestion.

The gallbladder is non-distended in size. The wall is smooth without visible thickening. Luminal contents are primarily anechoic. There is no evidence of cystic or common bile duct dilation.

Gastrointestinal

The stomach wall is normal in thickness (canine < 0.5 cm and feline < 0.4 cm) and layering. The lumen of the stomach is empty with no evidence of obstruction, foreign material or infiltrative disease. Pyloric outflow tract appears patent.

The visible small intestines are normal in wall thickness and layering (canine duodenum < 0.5 cm and feline duodenum < 0.4 cm; other < 0.3 cm). Small intestinal motility appears adequate (1-3 contractions per min). The lumen of the small intestine is empty with no evidence of obstruction, foreign material or infiltrative disease.

The visible colon is normal in wall thickness (< 0.2 cm) and layering. Contents are consistent with normal formed feces and gas.

Pancreas

The pancreatic parenchyma is appropriately isoechoic to surrounding tissue. Visible capsule is smooth and normal in contour. There is no visible pancreatic duct dilation. There is no evidence of active peripancreatic inflammation.

Free Abdomen

There is no evidence of free peritoneal effusion noted in these images.

There is no apparent lymphadenopathy noted in these images.

There is no evidence of heart base or pericardial pathology noted in these images at this time. If cardiac function evaluation is desired a full echocardiogram is recommended.

ULTRASONOGRAPHIC FINDINGS

- **Left adrenal mass without atrophy of the contralateral right adrenal gland** – This could represent adrenal hyperplasia secondary to pituitary dependent hyperadrenocorticism or could represent a pheochromocytoma. Additionally, while much less common, an adrenal adenoma or even adenocarcinoma could be present in the left adrenal gland with normal variant, stress, or concurrent pituitary dependent hyperadrenocorticism affecting the right gland, as typically with an adenoma or adenocarcinoma, the contralateral gland is atrophied, which is not present in this case.

- **Heterogenous Liver –** These changes are most consistent with benign processes such as nodular hyperplasia, steroid (vacuolar) hepatopathy, extramedullary hematopoiesis or possibly chronic inflammatory disease and less commonly infiltrative round cell or metastatic neoplasia.

- **Splenic micronodular hyperplasia pattern –** This nodular change is often associated with benign aging nodular hyperplasia. Infiltrative neoplasia, however, including both early hemangiosarcoma as well as round cell neoplasia cannot be ruled out.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

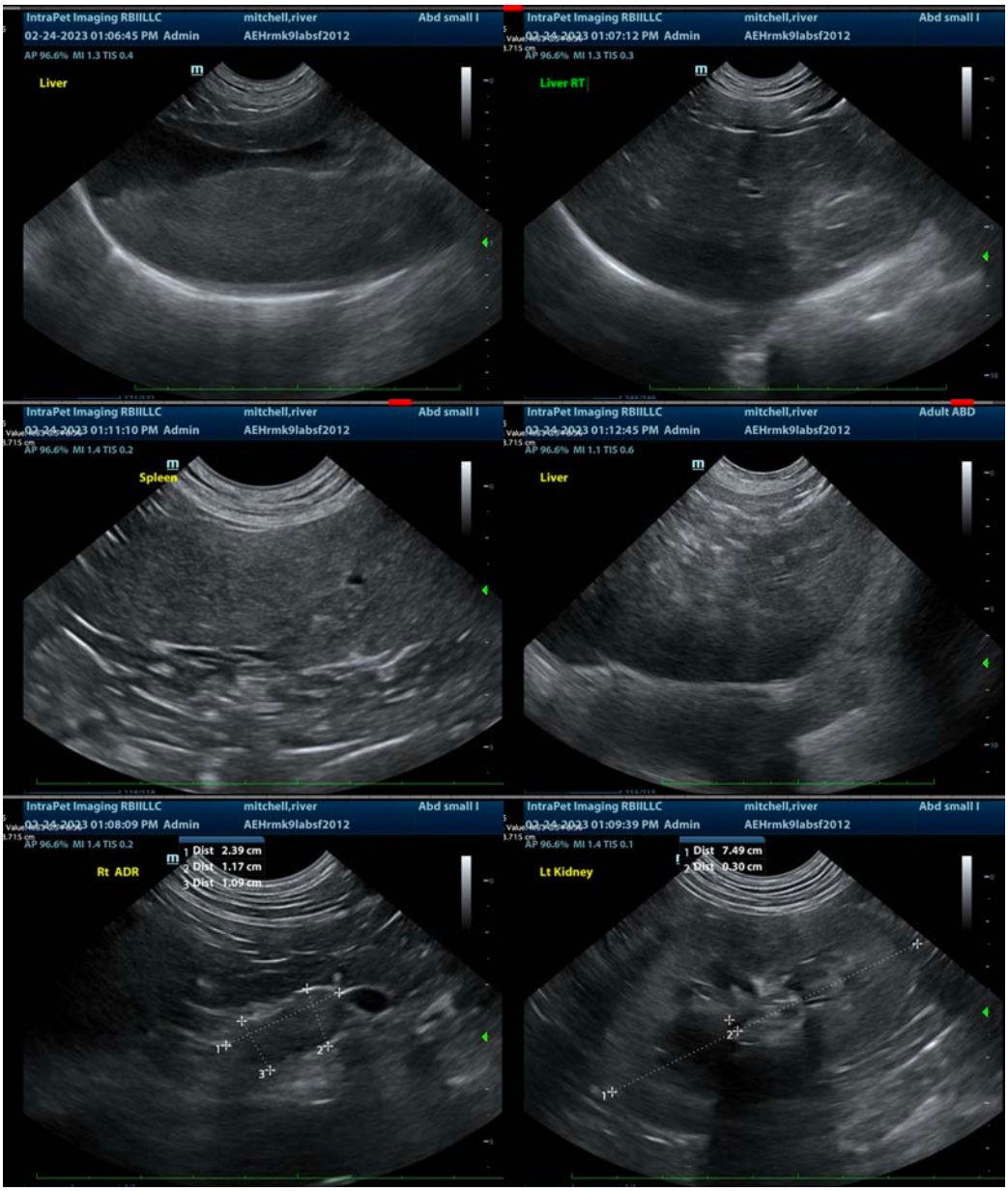
Given this patient's acute clinical signs, further evaluation of possible hypertension and/or a blood clot potentially secondary to adrenal disease is recommended. Therefore, if not recently evaluated, a blood pressure is recommended.

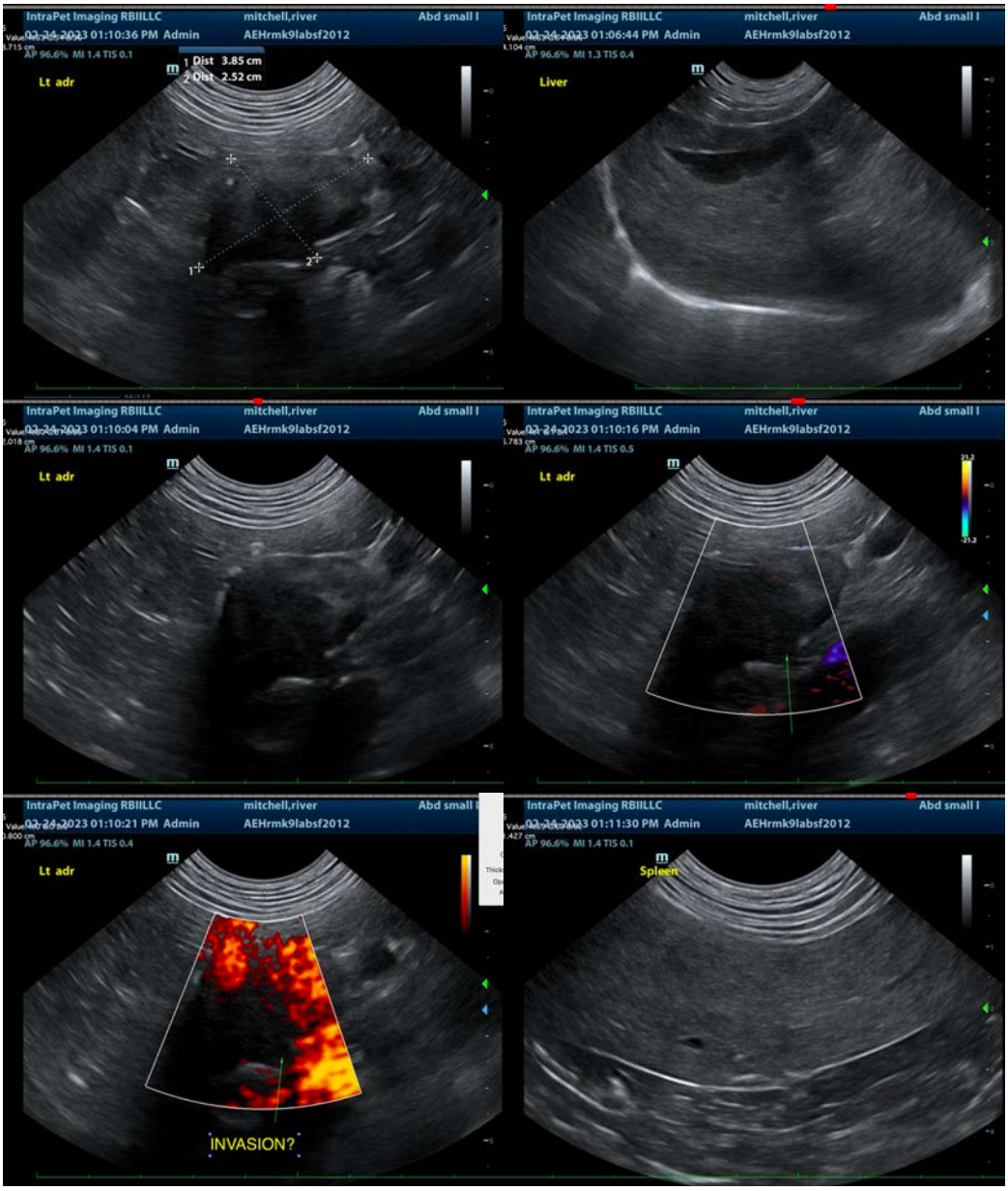
Urinalysis and, if indicated based on urinalysis results, urine culture are recommended. If protein is present in an otherwise quiet sediment, protein quantification with a urine protein to creatinine ration is recommended.

Additionally, further hormone testing in the form of a low-dose Dexamethasone suppression test as well as potentially urine catecholamines should be considered.

Given the appearance of the left adrenal gland, however, further imaging is also warranted to help further investigate capsular escape, vascular invasion, etc., which may warrant a surgical adrenalectomy. Therefore, an abdominal CT scan could be considered.

While both the liver and spleen trend in appearance toward benign/benign aging changes, if more aggressive intervention is going to be pursued, fine needle aspirates of the liver and spleen are recommended to rule out (believed very unlikely but possible) metastatic disease, if patient's coagulation status is appropriate.




IntraPet Imaging RBIILLC
mitchell,river
Abd small I
AEHrmk9labsf2012
Admin
AP 96.6% MI 1.4 TIS 0.1
1 Dist 3.85 cm
2 Dist 2.52 cm
Lt adr
AP 96.6% MI 1.3 TIS 0.4
Liver
AP 96.6% MI 1.4 TIS 0.1
Lt adr
AP 96.6% MI 1.4 TIS 0.5
Lt adr
AP 96.6% MI 1.4 TIS 0.4
Lt adr
INVASION?
AP 96.6% MI 1.4 TIS 0.1
Spleen

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.

Beth Johnson, DVM, DACVIM
Beth.Johnson@sonopath.com