

**DATE PRESENTING CLINICAL SIGNS**

2/2/23

P initially presented for lethargy and pain/discomfort and weakness in rear limbs; P demonstrated a mild positive response to pain medication though started to develop anxiety, worsened lethargy, and now anorexia of 4d duration; O reports bilious vomiting over the weekend, but not consistently.

PATIENT

T-Bone Fields

Current Medications: Entyce, Vetprofen, Gabapentin.

Lab Results: See attached.

SPECIES

Canine

Radiographs: Concern for mid-abdominal mass d/t caudoventral deviation of SI, and ventro-lateral deviation of colon_

Date of Previous IntraPet Ultrasound: No previous.

Sedation: Not required to complete full diagnostic ultrasound.

Stat Report: Not requested.

BREED

Imaging Performed By: Stephanie Warga RDCS, RVT.

Labrador Retriever

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**SEX**

Neutered Male

Urinary System

Urinary bladder is adequately distended. It has a normal uniform wall thickness. Contents include primarily anechoic fluid with occasional echogenic non-shadowing debris, most consistent with exfoliated cells, mucous and/or small blood clots. Both sterile inflammation as well as urinary tract infection can also present with echogenic debris. No masses or cystoliths are observed. The trigone and visible pelvic urethra are normal in thickness with a smooth mucosal surface.

AGE

1/18/13

WEIGHT

98 Pounds

The prostate is mildly enlarged for a neutered dog, measuring 2.9 cm wide. Parenchyma is mildly heterogeneous, characterized by small anechoic cysts and mineralization. Normal distinct margins and symmetrical bilobed shape are maintained. This finding is likely a normal patient/aging variant, especially if the patient was neutered later in life or as an adult. However, prostatitis or less likely infiltrative neoplasia cannot be ruled out. This finding should be interpreted in combination with clinical signs such as prostatic pain upon rectal exam, urinalysis results, etc., and either further investigated if indicated, or monitored.

INTERPRETED BYBeth Johnson, DVM
DACVIM

The right kidney is normal in size (8.32 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.

HOSPITAL NAME

Bayside AMC

The left kidney is normal in size (8.28 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.

REFERRING VET

Dr. Beigel

Adrenal Glands

Adrenal glands are plump/swollen in size. Normal shape and contour are maintained without evidence of capsular invasion. Some parenchymal heterogeneity is present without concerning capsular distortion. Visible surrounding vasculature appears normal.

INVOICE

44747

Spleen

Spleen is subjectively normal in size with a normal smooth capsular contour. Parenchyma is appropriately finely textured and homogenous with normal echogenicity relative to surrounding tissue (hyperechoic to liver). Multifocal well-demarcated hyperechoic homogenous nodules are noted. Splenic vasculature appears normal.

Liver

The liver is subjectively normal in size with normal smooth curvilinear peripheral contour. Parenchyma is appropriately hypoechoic to the spleen in echogenicity and appropriately mildly coarse and homogenous in

echotexture. Multifocal well demarcated hyperechoic homogeneous nodules are noted throughout the parenchyma. Visible vasculature and biliary tree appear normal without distension or congestion.

Gallbladder is moderately distended with anechoic bile as well as mild suspended and gravity dependent echogenic debris. The wall is smooth without visible thickening. There is no evidence of cystic or CBD dilation. There is no evidence of effusion or inflammation.

Gastrointestinal

The visible stomach wall is normal in thickness and layering. The lumen of the stomach is mildly distended with very echogenic reverberation artifact from intraluminal gas. There is no evidence of obstruction, foreign material or infiltrative disease; however, complete visualization of far wall is partially inhibited by gas. Pyloric outflow tract appears patent.

The visible small intestines are normal in wall thickness and layering. However, hyperechoic mucosal fogging or speckling is noted. Bowel is also diffusely mildly fluid distended without evidence of an obstructive pattern, plication, and or visible foreign material, but occasional small intestinal hyperperistalsis is noted.

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.

PRIMARY FINDINGS

- **Bilateral adrenomegaly with some age related heterogeneity noted** - consistent with adrenal hyperplasia secondary to pituitary dependent hyperadrenocorticism vs stress or normal variant. Interpret in combination with clinical signs of hyperadrenocorticism.
- **Liver nodules** – Differentials for discrete liver nodules include primarily benign changes such as nodular hyperplasia, fibrosis of an old hematoma, granuloma, myelolipoma etc.; however, while considered less likely, primary hepatic neoplasia, infiltrative round cell neoplasia and metastatic disease can mimic benign lesions and cannot be definitively ruled out.
- **Gastroenteritis** – Consistent with irritation secondary to dietary indiscretion or intolerance, infection (bacterial, viral, other), parasitic or protozoal disease, toxin, other metabolic disease such as pancreatitis, other.
- **Mucosal speckling** – Mucosal speckling is often present with inflammatory bowel disease (IBD). It is not specific for type or severity of disease. Mild speckling change can occur as a normal patient variant in the post-prandial state.

SECONDARY FINDINGS

- Urinary bladder debris

- **Hyperechoic splenic nodules** – most consistent with benign myelolipomas. Other differentials such as fibrosis or calcification caused by old hematomas or infarcts, chronic inflammation, granulomatous disease or metastatic disease cannot be ruled out, but are considered less likely.
- **Prostatomegaly as described above** – This finding should be interpreted in combination with physical exam findings, clinical signs, and/or urinalysis results that suggest pathology.
- **Mild gallbladder debris** - Cholecystic debris is of unknown clinical significance. It can be seen with biliary stasis from fasting or illness. Cholecystic debris is not necessarily related to hepatobiliary disease. Echogenic bile is most commonly an incidental finding in dogs and should be interpreted in combination with clinical signs such as nausea, inappetence, cranial abdominal discomfort and/or laboratory changes such as increased ALP and/or increased Tbili.

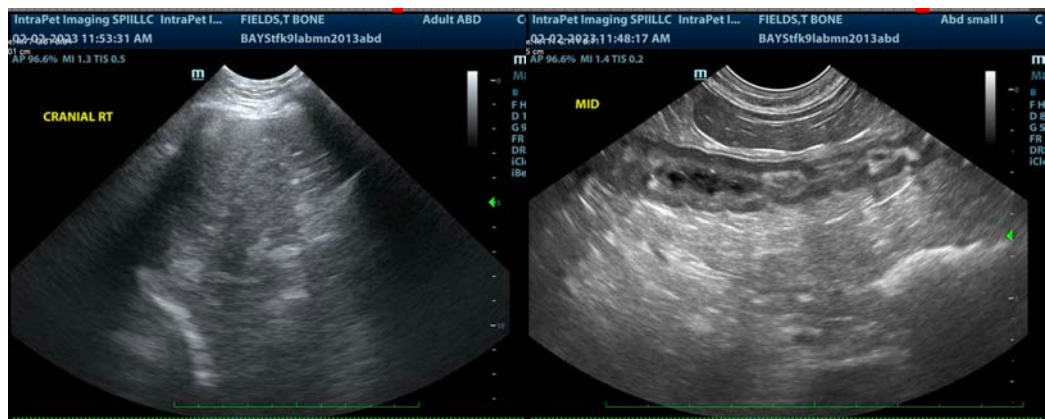
INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

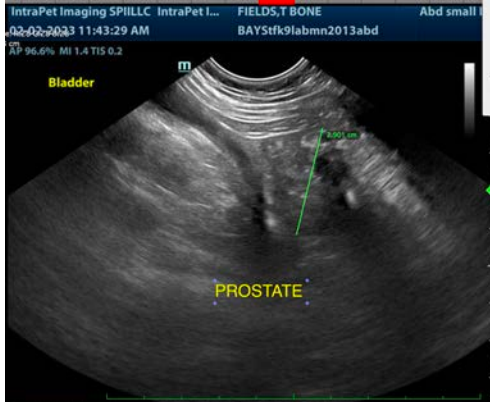
This patient has a variety of likely incidental/normal aging change/benign abnormalities as described above. The most significant one in terms of this patient's reported clinical signs is the small bowel pathology. Therefore, recommendations include a fecal exam if not recently evaluated as well as a gastrointestinal malabsorption panel (including cobalamin, folate, TLI and PLI) to Texas A&M GI Laboratory.

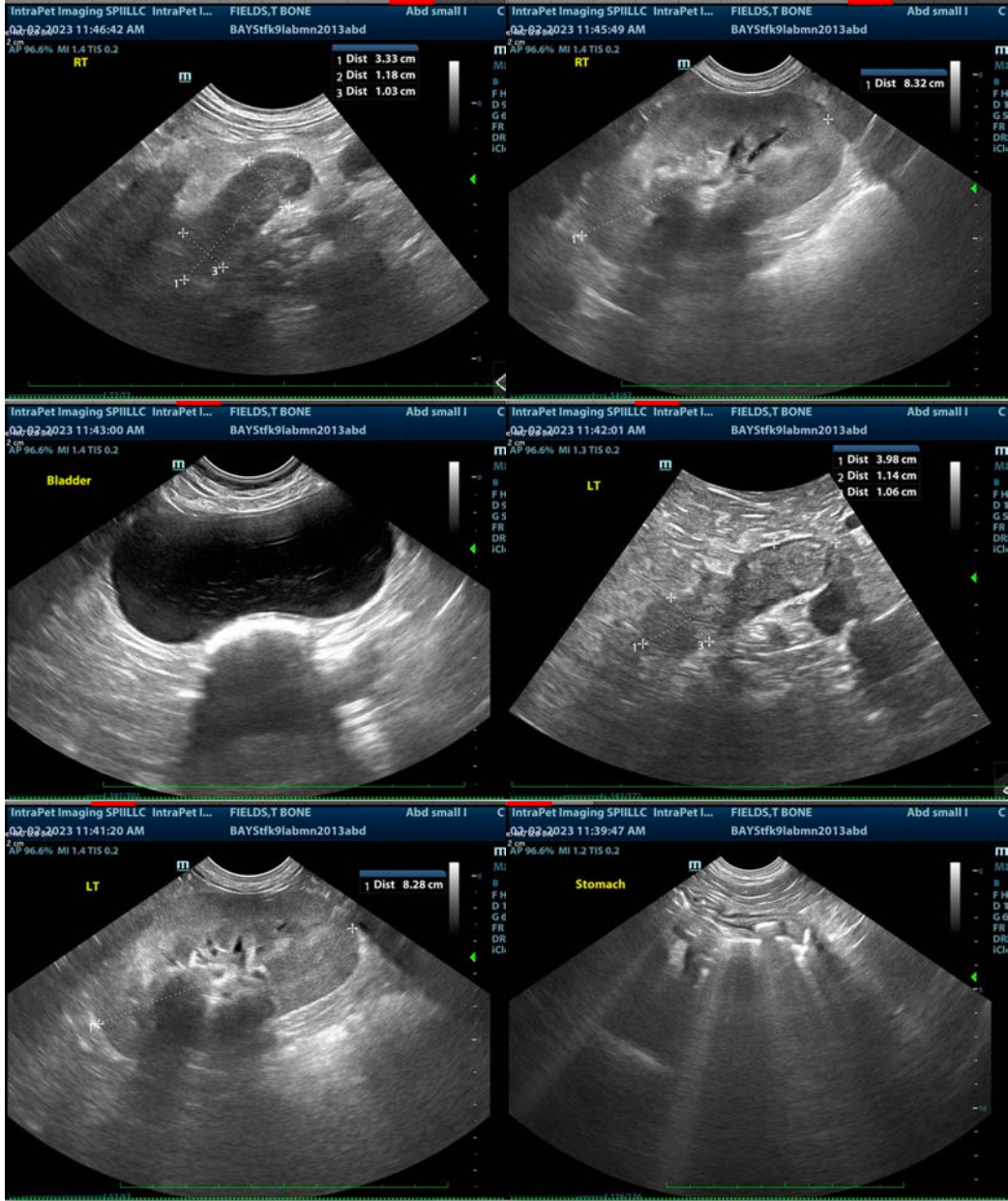
In the meantime, empirical supportive/symptomatic medical management of gastroenteritis with antiemetics, gastroprotectants, appetite stimulant, if necessary, a probiotic such as Visbiome or Provable, as well as empirical deworming with a 5-day course of Panacur and a bland, easy to digest or potentially low-fat diet is recommended.

Down the road, if clinical signs of hyperadrenocorticism are present, testing for hyperadrenocorticism could be considered, given the appearance of the adrenal glands. However, testing is not recommended in the face of concurrent illness and isn't warranted without supporting clinical signs.

Finally, given this patient's original presenting complaint of pelvic limb weakness and pain, further assessment of the prostate is recommended with the rectal exam followed potentially by a fine needle aspirate of the prostate and/or submission of urine to look for BRAF gene mutation, which can be associated with urinary bladder and/or prostatic cancer. Again, prostatic cancer is believed unlikely, but given the original presenting complaint, this recommendation may be warranted.









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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