

**DATE PRESENTING CLINICAL SIGNS**

3/30/23

Chronic diarrhea, inappetence, and lethargy for about a month. Resolved when on enrofloxacin and EN food from previous vet. 1-2 weeks after completing meds and food symptoms returned and P was even more lethargic. Tender abdomen on PE. Radiographs of abdomen - SI looks 'angry' but no other significant findings.

PATIENT

Jasmine Warthen

Current Medications: Canine EN food, Cerenia 80mg PO q 24 hours, Metronidazole 500mg PO q 12 hours, Visbiome 3 capsules PO q 24 hours

SPECIES

Canine

Lab Results: mild increase in ALKP and globulins, snap CPL abnormal. Rest of CBC and Chem WNL.

Encouraged O to consider maldigestion profile but not yet performed.

Date of Previous IntraPet Ultrasound: No previous.

Sedation: Not required to complete full diagnostic ultrasound.

Stat Report: Not requested.

BREED

Pit Bull X

Imaging Performed By: Stephanie Warga RDCS, RVT.

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**SEX**

Spayed Female

Urinary System

The urinary bladder is moderately distended with anechoic urine. The Bladder wall is largely normal, but the dorsal aspect appears irregular and somewhat thickened, measuring 0.64 cm. The region of the trigone, ureteral papillae and proximal urethra appear free of any mass lesions, calculi, or irregularities.

AGE

9/24/14

The left kidney has a normal shape and size (7.05 cm). Overall echogenicity is normal with adequate 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, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

WEIGHT

55.5 Pounds

The right kidney has a normal shape and size (8.11 cm). Overall echogenicity is normal with adequate 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, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

INTERPRETED BY

Kathleen Sennello DVM,
MS, Diplomate ACVIM
(Small Animal Internal
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Adrenal Glands

The left adrenal gland is large measuring 1.48 cm at the cranial pole, 1.55 cm at the caudal pole, and 4.25 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 parenchyma is somewhat mottled and the caudal pole appears slightly hyperechoic. No evidence of vascular invasion is visualized.

HOSPITAL NAME

Eastern AH

REFERRING VET

Dr. Bottaro

The right adrenal gland is normal in size measuring 0.77 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.

INVOICE

46304

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 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 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. Duodenum wall measures 0.39 cm. Jejunum wall measures 0.32 cm. 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. The distal colon appears prominent/mildly thickened at 0.26 cm with surrounding inflammation in the region.

Pancreas

The pancreas is prominent and mottled compared to the surrounding isoechoic 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. There is an area of hypoechoic tissue visualized dorsal to the trigone region of the urinary bladder and ventral to the colon. This is the region of the uterine stump, so a prominent uterine stump would be a differential as well as a colonic lymph node. There is a significant amount of regional inflammation in this region, possibly secondary to the colitis. This structure measures approximately 1.11 cm x 2.85 cm.

PRIMARY FINDINGS

- Irregular dorsal wall of the urinary bladder – Findings could be consistent with cystitis, less likely reactivity secondary to localized inflammation (colon, etc.), or neoplastic change.
- Large, irregular left adrenal gland – Adrenomegaly could be consistent with neoplasia (e.g., adenoma, carcinoma, pheochromocytoma), hyperplasia, inflammation, other.

SECONDARY FINDINGS

- Prominent, mottled right limb of the pancreas – The pancreatic changes are most consistent with age-related parenchymal remodeling, potentially secondary to a prior inflammatory episode, early fibrosis or chronic pancreatitis.
- Prominent/mildly thickened colon wall – Findings could be consistent with inflammation, infection, or less likely neoplastic change.
- Hypoechoic tissue visualized between the urinary bladder and the colon with surrounding inflammation – Findings could be consistent with a prominent uterine stump or an enlarged colonic lymph node.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

There is a significant amount of inflammation in the distal abdomen, likely secondary to the colonic issues described. The dorsal wall of the urinary bladder appears thickened and irregular. Recommend a urinalysis and culture. If an infection is identified, recommend reevaluation of this area post-treatment to look for resolution of the thickening. If an infection is not present, then consider a traumatic catheterization or cystoscopy to obtain samples of the dorsal wall. Additionally, you could consider a urine BRAF test, as if this is positive, this would greatly increase the likelihood of an underlying neoplastic process. A negative test if non-diagnostic and would require additional evaluation.

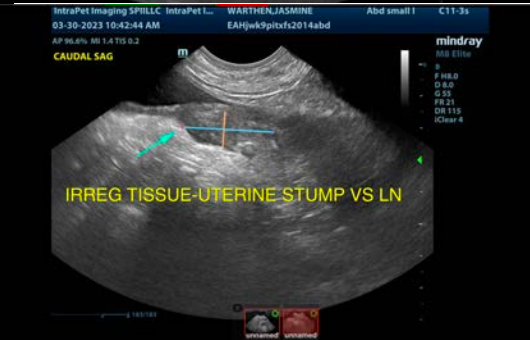
There is some prominent/abnormal tissue visualized between the urinary bladder and the colon. This is the region of the uterine stump, but additionally a colonic lymph node is possible in this region. It is difficult to differentiate, and sampling is unlikely to be possible in this region. Consider a more aggressive treatment for the colitis and close monitoring. If this inflammation does not resolve, a contrast CT scan of the region may be necessary to differentiate. I'm hoping this is a reactive lymph node, but a mass lesion or abnormal uterine stump cannot be ruled out.

With the history provided, I would be concerned about possible histiocytic ulcerative colitis. Strongly recommend a colonoscopy with histopathology and cultures. Additionally, possible FISH testing, looking for entero-invasive E. coli. A less likely but possible diagnosis would also be colonic neoplasia. Recommend reevaluation of the abnormal tissue between the urinary bladder and the colon, ideally once the colonic issues have been resolved, but either way consider a recheck in 8-12 weeks, looking for possible progression of this lesion.

The left adrenal gland is large and somewhat irregular. This could represent benign change such as hyperplasia, but there is also concern for the possibility of neoplastic change. Additionally, these lesions can be actively secreting hormone or be non-active. These are my recommendations for further evaluation of an enlarged adrenal:

- If signs of cushings 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 cushings 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 cushings 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.

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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