

**DATE PRESENTING CLINICAL SIGNS**

9/1/2021

History: 14.5 year-old FS F1 labradoodle. Recurrent diarrhea. Initial bout was 2 weeks ago, responded to Metronidazole. Recurred--part solid/part liquid stool. Eating well, drinking more. Bloodwork pending. Abdomen tense. Rads concerning for mid-abdominal mass. Grade 4/6 systolic murmur, progressive over 2 years. Previous bilateral TPLOs.

PATIENT

Zoe Pettitt

Current Medications: On Gabapentin, Carprofen, Dasuquin, Provable.

Lab Results: Pending.

Radiographs: Rads concerning for mid-abdominal mass.

Date of Previous IntraPet Ultrasound: No previous IntraPet scans.

SPECIES

Canine

Sedation: Not needed.

Stat Report: Not requested.

BREED

Labradoodle

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**Urinary System**

The urinary bladder, trigone, and pelvic urethra are normal in thickness and the mucosal surface is smooth.

The bladder lumen is moderately distended with mostly anechoic urine. No masses, inflammatory changes or calculi are observed. Ureteral papillae and visualized portion of the proximal urethra, visible to a depth of 2 cm, are normal.

SEX

Female, spayed

AGE

3/7/2007

The left kidney is normal size (5.35 cm in length); normal shape and architecture with smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with minimal loss of corticomedullary distinction. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

WEIGHT

25.6 lbs.

The right kidney is normal size (5.29 cm in length); normal shape and architecture with smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with minimal loss of corticomedullary distinction. Hyperechoic shadowing diverticular foci are visualized. There is no evidence of pyelectasia, nephroliths, infarcts or hydroureter. Renal vasculature is normal.

INTERPRETED BY

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Adrenal Glands

The left adrenal gland is normal size (0.75 cm at cranial pole) (0.69 cm at caudal pole) (2.44 cm in length); normal shape; homogenous parenchyma. The glandular echogenicity and detail are unremarkable. Capsule, cortex, and medullary definition are normal. The phrenicoabdominal vein and surrounding vasculature are normal.

HOSPITAL NAME

Paradise AH

The right adrenal gland is normal size (0.79 cm at cranial pole) (0.66 cm at caudal pole) (2.49 cm in length); normal shape; homogenous parenchyma. The glandular echogenicity and detail are unremarkable. Capsule, cortex, and medullary definition are normal. The phrenicoabdominal vein and surrounding vasculature are normal.

REFERRING VET

Dr. Riehl

Spleen

The spleen is subjectively normal in size (1.20 cm in width at the level of the hilus) with mild focal swelling of the contours at the level of the hilus. A 0.88 cm hypoechoic to heterogeneous nodule is observed at the caudal aspect. The remaining peripheral contours are slightly undulating. There is appropriate echogenicity and echotexture. Several small, ill-defined hyperechoic nodules/areas are observed throughout the organ. Splenic vasculature is normal.

INVOICE

12002

Liver

The liver is subjectively enlarged with slightly swollen peripheral contours. The parenchyma is isoechoic relative to the spleen and diffusely homogeneous in appearance. A 1.69 x 1.40 cm anechoic cyst is observed mid to right liver. Vascular and biliary tracts are of normal volume with no evidence of congestion. The gall bladder lumen is moderately distended. The wall is thin and smooth. A small amount of aggregated echogenic partially dependent debris is observed within the lumen. The cystic and common bile ducts are

normal/not seen. The gall bladder lumen is mildly distended. The wall is normal in thickness. A large amount of aggregated echogenic suspended sludge in a partially stellate pattern is observed within the lumen. The cystic and common bile ducts are normal/not seen.

Gastrointestinal

The gastric lumen is distended with ingesta and fluid. A 1.61 cm hard shadowing structure is also present within the lumen. The gastric wall and pylorus are normal in thickness with a normal layering pattern. The pyloric outflow tract appears patent. The small intestinal lumen is segmentally dilated with chyme. The small intestinal wall thickness is normal with a normal layering pattern and appropriate mural detail. Discreet masses are not identified. The colonic wall is normal. No obstructive disease is noted.

Pancreas

The left and right limbs of the pancreas are visible with normal curvilinear peripheral contours. The parenchyma is largely isoechoic relative to surrounding omental fat and slightly mottled in appearance. The pancreatic duct is visible but not overtly dilated. There is no evidence of peripancreatic inflammation or effusion.

Free Abdomen

The peritoneal cavity is normal. There is no evidence of inflammation or effusion. The abdominal lymph nodes are normal/not visible.

ULTRASONOGRAPHIC FINDINGS

Primary Findings:

- The gastric contents are consistent with ingesta and concurrent foreign material. Mild gastric ileus is suspected.
- The gallbladder changes are concerning for a developing mucocele.

Secondary Findings:

- The pancreatic changes are most consistent with age-related parenchymal remodeling, potentially secondary to a prior inflammatory episode, early fibrosis or chronic pancreatitis.
- The diffuse hepatic changes are non-specific and could be consistent with vacuolar hepatopathy, regenerative nodular hyperplasia, and/or age-related remodeling. Inflammatory and infiltrative disease are considered less likely.
- The hyperechoic splenic nodules trend toward the benign (i.e., myelolipomas) with a lower possibility of emerging neoplasia. The hypoechoic splenic nodule could be consistent with benign pathology or an emerging neoplastic process.
- Minor age-related renal pathology.

*There is no obvious evidence of neoplasia in the abdomen.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

- Regarding the diarrhea, consider the following diagnostics/therapeutics:
 1. Serum cobalamin, folate, PLI and TLI

2. A fecal evaluation for ova/Giardia
 3. Prophylactic deworming with Fenbendazole at 50 mg/kg once a day for 5 days is recommended. Repeat above protocol in 3 weeks.
 4. A resting cortisol level to screen for hypoadrenocorticism. If resting cortisol level is < 2.0 mcg/dL, an ACTH stimulation test is recommended
 5. A 6-week limited antigen diet trial to assess for food allergies
 6. Ultimately, endoscopic or surgical gastrointestinal biopsies may be necessary to get a definitive diagnosis.
- Regarding the gallbladder changes, consider initiation of Ursodiol therapy with serial sonographic monitoring (i.e., every 6-8 weeks) of the gallbladder to assess for progression to a fully formed mucocele.
 - Given the patient's age, three-thoracic radiographs are recommended to assess cardiopulmonary status.
 - Consider a repeat ultrasound in 4-6 weeks to assess for progression of the hypoechoic splenic nodule.







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.

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