



PATIENT

Little Girl Atwood

SPECIES

Canine

BREED

Pit Bull Terrier Mix

SEX

Spayed female

AGE

13 years

WEIGHT

16 kg

INTERPRETED BY

Eric Lindquist, DMV
DABVP, Cert. IVUSS

IMAGING PERFORMED BY

Dr. Callihan

HOSPITAL NAME

Animal Emergency
Care

REFERRING VET

Dr. Kalsbeek

INVOICE

42956

DATE

2/24/23

PRESENTING CLINICAL SIGNS

History: Was seen at RDVM this afternoon for lethargy and decreased appetite. Blood work showed non-regenerative anemia with a HCT of 28%, mild monocytosis, mild eosinopenia, increased creatine (2.1), rads were taken and showed an enlarged spleen and ultrasound showed a possible mass effect at head of spleen, no free fluid in abdomen. Unable to obtain urine at that time. History of: lipomas, oral tonsillar squamous cell carcinoma and soft tissue sarcoma right side of chest May 2022 Medications: trazodone and 300 mg Gabapentin at 2:45 pm Diet: Blue Buffalo Senior kibble and Blue Buffalo canned (owner rotates Senior, Beef or Turkey)

Abnormal PE/Chem/CBC/UA Results: Very depressed/flat on presentation, with tachycardia, mild hypertension; quite painful to abdominal palpation -PCV/TP: 32%/7 (mild anemia, nonregenerative) Sedivue Urinalysis: WBC>50/HPF, RBC>50/HPF, suspect presence of rods and cocci, non-squamous EPI > 10/HPF, non-hyaline casts > 1/LPF, unclassified crystals <1/HPF -UA Analyzer: USG 1.022, PRO 500 mg/dL, LEU 100 Leu/mcL, BLD 250 Ery/mcL, pH 5 (Prior to IV fluid therapy)

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

Urinary System

The **urinary bladder**, trigone, and pelvic urethra presented normal thicknesses and normal tone. The pelvic urethra was imaged 2.0 cm beyond the cystourethral junction and appeared normal. The ureters were not visible which is normal. No uroliths or sediment were visualized and anechoic urine was present. No evidence of inflammatory or neoplastic changes was noted. Ureteral papillae were normal.

The **kidneys** revealed largely normal size and structure, corticomedullary definition and ratio (cortex 1/3 of medulla) were essentially maintained with some age-related loss of curvilinear patterns regarding the capsule and C/M junction. The cortices presented largely uniform texture with some increased echogenicity expected for his age patient. Medullary structure differed distinctly from that of the cortex and no evidence of pelvic dilation was present. The left kidney measured 5.76 cm. The right kidney measured 5.74 cm.

Adrenal Glands

Both **adrenal glands** were visualized and recognized as having normal shape, size, position and echogenicity for this breed. The phrenic vasculature, glandular echogenicity and detail were unremarkable. Capsule, cortex, and medullary definition were normal for this age patient. The left adrenal gland measured 0.53 cm. The right adrenal gland measured 0.52 cm at the caudal pole and 0.62 cm at the cranial pole.

Spleen

The **spleen** revealed subtle micronodular changes with scalloping contour. The spleen was folded upon itself cranially and caudally.



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Liver

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The **liver** revealed macronodular lesions in the left medial liver measuring 3.25 cm. Increased portal markings were present. The gallbladder and common bile duct were unremarkable. However, the gallbladder was deviated.

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Gastrointestinal

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The **gastrointestinal tract** revealed progressively shadowing material in the stomach measuring approximately 5.0 cm. The pylorus was patent, no physical obstruction was noted. There was diffuse, hyperechoic fogging or overlay throughout the small intestine as well as areas of mucosal striations and speckling. This striation + fogging effect appeared to exclusively affect the mucosal layer with the submucosa, muscularis and serosa left in-tact. Reactive mesentery was present associated with the serosa indicative of active inflammation. This is most consistent with protein losing enteropathy/lymphangectasia. Full thickness biopsies or endoscopy guided biopsies would be ideal to confirm. No obstructive disease or obvious suspicion of neoplasia.

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Pancreas

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The base and limbs of the **pancreas** were observed to be largely isoechoic to surrounding omental fat. Some parenchymal remodeling, however, with mild deviation from curvilinear normalcy was observed. Pancreatic duct and capsular irregularities were present consistent with age related changes. If pain upon imaging (+ Murphy sign) was present or if the patient is focally painful in subxiphoid palpation then low-grade smoldering chronic pancreatitis should be suspected.

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ULTRASONOGRAPHIC FINDINGS

Post prandial is possible, yet the echotexture is that of grass or soft foreign material.

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Mucosal fogging was present in portions of the small intestine.

Moderate degenerative renal changes.

Micronodular spleen.

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Macronodular liver.

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INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

FNA of the spleen and liver is recommended as a screening procedure. Assessment of the patient's feeding history is warranted. The cause of anemia is unclear. CBC path review is warranted. 12-18 hour n.p.o. and a recheck sonogram of the pyloric outflow is recommended to assess if the material has moved or is persistent. This may be the cause of the clinical signs.

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The liver lesions include nodular hyperplasia, round cell neoplasia, hepatoma or less likely carcinoma.

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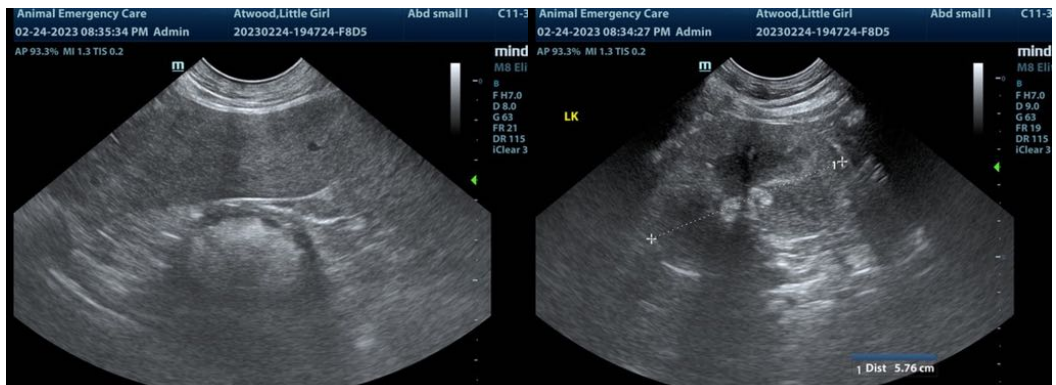
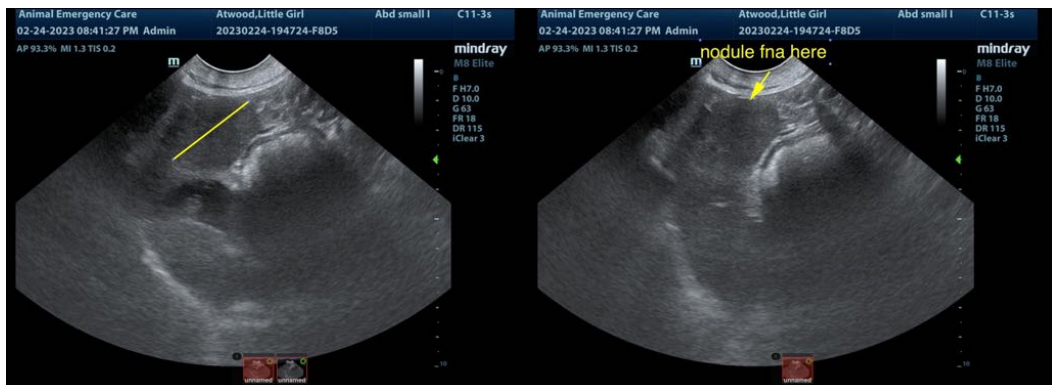
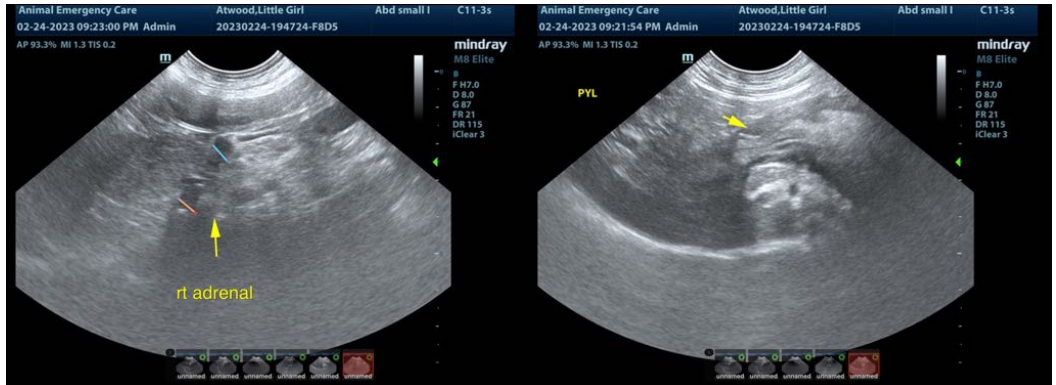
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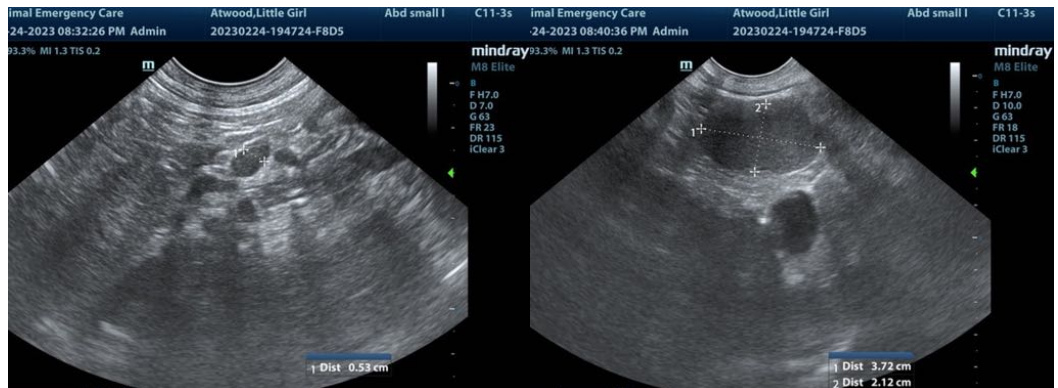
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The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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.

Eric Lindquist, DMV, DABVP, Cert. IVUSS, CEO of SonoPath.com
info@SonoPath.com