

**DATE**

12/20/21

PRESENTING CLINICAL SIGNS

History: Referral from previous vet for ascites and hypoalbuminemia. Other than ascites, PE largely unremarkable.

Current Medications: Started on 12/18/21: 2.5mg Prednisone BID.

Lab Results: 12/18/21 from (previous vet): TP 2.6, Albumin 0.9, Glob 1.7(A/G ratio 0.5) 12/18/21 fecal (previous vet): neg.

Date of Previous IntraPet Ultrasound: No previous IntraPet scans.

Sedation: Not required for a full diagnostic ultrasound.

Stat Report: Not requested.

PATIENT

Thomas Uchima

SPECIES

Canine

BREED

Yorkshire Terrier

SEX

Neutered male

AGE

6/20/16

WEIGHT

7.53 lbs

INTERPRETED BY

Eric Lindquist, DMV
DABVP, Cert. IVUSS

IMAGING PERFORMED BY

Stephanie Pearce
RDCS, RVT

HOSPITAL NAME

Everhart VC

REFERRING VET**INVOICE**

94742

ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**Urinary System**

The **urinary bladder**, trigone, and pelvic urethra presented normal thicknesses and normal tone. 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 prostate was uniform and measured 0.69 cm.

The **kidneys** revealed normal size and structure, corticomedullary definition and ratio for this age. The cortices presented largely uniform texture with normal echogenic relationship to liver and spleen. Medullary structure differed distinctly from the cortex and no evidence of pelvic dilation was present. The capsules were acceptably uniform without significant irregularities. The right kidney measured 3.73 cm. Blood flow to the kidneys appeared to be adequate. The left kidney measured 3.54 cm.

Adrenal Glands

The right **adrenal gland** was flattened likely owing to Prednisone therapy and measured 1.61 x 0.43 cm at the caudal pole and 0.42 cm at the cranial pole. The left adrenal gland was also mildly flattened likely owing to Prednisone therapy and measured 1.26 x 0.39 cm at the caudal pole and 0.42 cm at the cranial pole.

Spleen

The **spleen** presented a smooth homogeneous parenchyma hyperechoic to liver and renal cortical parenchyma. The capsule was smooth without noticeable expansion or deviation from within the spleen or adjacent pathology. The splenic vasculature demonstrated normal volume without signs of congestion or thrombosis. No sonographic evidence of acute or chronic inflammatory, neoplastic, or infarctual changes was noted.

Liver

Exam of the cranial abdomen demonstrated excessive **liver** size and swollen contour. Mild, coarse architecture was noted with increased portal markings and minor parenchymal remodeling is suggestive of an inflammatory component. Minor excessive GB debris was noted with the presence gall bladder dilation and precipitate without the overt formation of mucocele but this may be an issue in the future. This type of liver presentation typically is associated with slow and gradual SAP elevations with low-grade ALT rise. USG-FNA sampling is encouraged if more aggressive LE profiles are present such as ALT > 200 or rapid rise in SAP. These presentations are usually reactive hepatopathies owing to other disease processes either endocrine (Diabetes, Hypothyroidism, Cushing's disease), "antigen surveillance" from the gut/pancreas, or idiopathic breed predisposed progressions.

Gastrointestinal

The **gastrointestinal tract** revealed 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-act. 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 endoscopic-guided biopsies would be ideal to confirm. No obstructive disease or obvious suspicion of neoplasia. Minor gastric fluid was present.

Pancreas

The **pancreas** revealed heterogenous changes owing to omental enhancement and free fluid.

ULTRASONOGRAPHIC FINDINGS

Lymphangectasia pattern to the GI tract with secondary ascites owing to poor oncotic pressures.
Heterogenous pancreas.

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

I cannot completely rule out underlying emerging round cell neoplasia/lymphoma as the Prednisone therapy may be suppressing a more significant presentation. However, there is no structural criteria at this time. Abdominocentesis and cytopsin could be considered to assess for any potential neoplastic cells. Plasma transfusion and plasma expanders are indicated.

PLE Therapy

Part or all of this protocol may be considered based on your clinical impression of the patient:

OBJECTIVE: keep albumin levels > 2 g/dl, avoid thromboembolism and cavitory effusions, monitor concurrent PLN (Wheaton Terrier PLE/PLN) and liver disease:

Plasma 10 mL / kilogram IV over 4 hours

Or **Human albumin** 2 ml/kg/h over 10 hours. Total daily volume 20.l/kg/day

And Colloids/Hetastarch

10 to 20 mL per kilogram per day and dogs

10 to 15 mL per kilogram per day cats

(Can bolus first 1/3 of dose over 15 minutes)

& maintain on LRS maintenance otherwise.

Metronidazole (10-20 mg/kg po bid)

Famotidine 1 mg/kg Iv Im po dc Sid /bid

Sucralfate 0.5-1 g po tid dogs, 0.5 g bid cats in slurry Or **Misoprostol** 1-5 ug/kg po tid

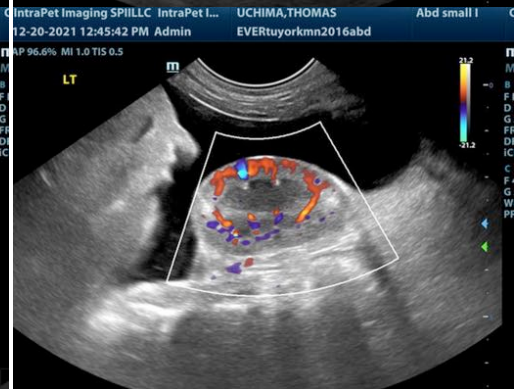
Diet: Highly digestible high quality protein, low fiber, low fat diet (< 15% of dry matter). Hydrolyzed protein or novel protein. Purina HA or Royal Canine HP or similar.

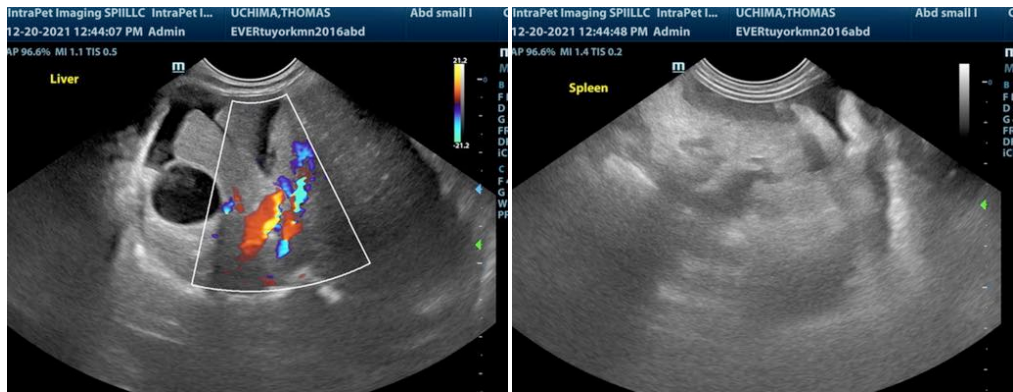
Prednisone or prednisolone 2 mg/kg bid x 3-5 days then 2 mg/kg sid. **Chlorambucil** in refractive severe IBD/alimentary lymphoma cases (monitor cbc for rare bone marrow suppression) 4 mg/m² Q 24-48 hours.

Cobalamine (B12) 250-1500 ug/dog weekly x 6 weeks.

Calcium supplementation if necessary.

Aspirin 0.5-1 mg/kg/day or **Clopidrel** (Plavix) 1-5 mg/kg/day.





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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