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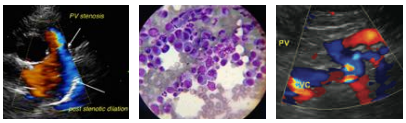

SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™
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**DATE**
9/7/21

**PATIENT**
Ches Kline

**SPECIES**
Canine

**BREED**
Yorkshire Terrier

**SEX**
Neutered male

**AGE**
9/5/08

**WEIGHT**
12.3 lbs

**INTERPRETED BY**
Eric Lindquist, DMV
DABVP, Cert. IVUSS

**HOSPITAL NAME**
Animal Emergency Hospital

**REFERRING VET**
Dr. Jones

**INVOICE**
91705

## PRESENTING CLINICAL SIGNS

History: 09-05-2021 Presenting Complaint: Vomiting, Diarrhea, Heart Failure. Notes: D+ off/on for few months - typically meds help, unsure name of medication. A few days ago was having a flare-up; rDVM gave meds which began to improve the D+ but other declines. Lethargic. This AM unable to stand on hardwood floor. Wobbly and progressed to not being able to support weight at all on the bed. V+ this AM yellow liquid Breathing stable Hx heart murmur, started meds ~4-5mo ago (no cardio, never hospitalized for CHF). ~1mo ago BW/stool check all ok. Known hepatomegaly and bladder stones. No known diet change or indiscretion.
Assessment: ADR, intermittent, chronic diarrhea, acute vomiting, lethargy, heart murmur, hepatomegaly, bladder stones.
Plan: aFAST = scant FF between liver lobes, unable to aspirate.
O approves rads and abbreviated BW to start. Will decide tx plan based on results. Explained that if dehydrated from GI dz, need to be careful with heart dz. Discussed multiple issues of concern and multiple options to approach. Based on rads and elevated LES, strong worry for liver function. Acute signs today of weakness, wobbliness seem unlikely related to heart but could be related to liver failure. Gave estimate for ATH, liver function tests, supp care and AUS Tuesday as the most aggressive tx plan. O concerned for long-term QOL. Elects to try PO meds at home, return for d/o AUS on Tues. **First K+ ran was >10 - worried about artifact, so re-ran new sample which was WNL.
Current Medications: Denamarin, Cerenia, Amoxi-Drops, Metronidazole, and Gabapentin.
Lab Results: Attached separately.
Radiographs: Attached separately.
Date of Previous IntraPet Ultrasound: No previous IntraPet scans.
Sedation: not needed
Stat Report: not requested

## ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN

### *Urinary System*

The **urinary bladder** was mildly over distended with anechoic urine, yet there was no mural pathology. The bladder presented multiple calculi. The largest of which measured 0.8 cm, grouping of which measured 3.0 cm and was non-obstructive at the time of the sonogram.

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 this age patient. Medullary structure differed distinctly from that of the cortex and no evidence of pelvic dilation was present. The left kidney measured 4.26 cm. The right kidney measured 4.02 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 1.87 x 0.51 cm at the cranial pole and 0.69 cm at the caudal pole. The right adrenal gland measured 1.89 x 0.6 cm at the caudal pole and 0.54 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*
The **liver** was enlarged with dilated hepatic veins and vena cava. Increased portal markings were noted along with a minor amount of gallbladder debris.

### *Gastrointestinal*
Examination of the **gastrointestinal tract** revealed a stomach and intestine free of stasis, of normal wall thickness, acceptable curvilinear mural detail, and peristaltic activity. Small and large intestine demonstrated normal luminal chyme and stool consistency respectively. No obstructive or overt infiltrative disease was noted. No associated abnormal lymphatic activity was noted.

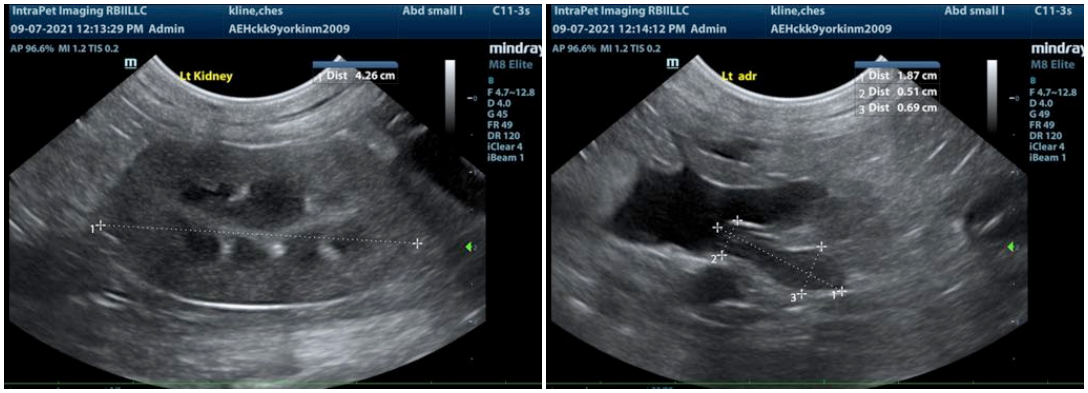
### *Pancreas*
The base and limbs of the **pancreas** were observed to be largely isoechoic to surrounding omental fat. Pancreatic duct and capsular contour were acceptably normal and parenchyma respected normal curvilinear patterns. No overt evidence of active inflammatory or neoplastic disease was noted.

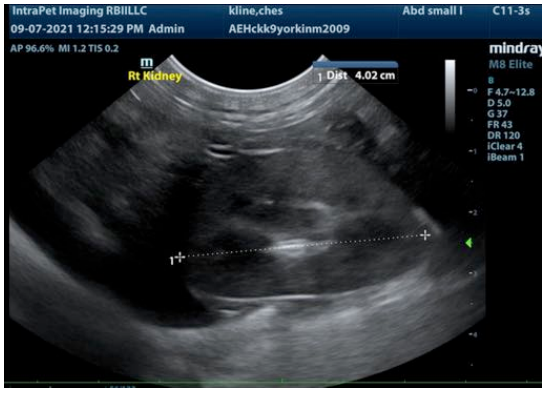
### *Free Abdomen*
A moderate amount of ascites was noted.

### *Heart*
Rapid view of the heart revealed bilateral atrial enlargement with periodic arrhythmia and trace pericardial effusion.

### ULTRASONOGRAPHIC FINDINGS
Ascites and geriatric abdominal changes.
Bilateral atrial enlargement with periodic arrhythmia and trace pericardial effusion.

### INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS
I recommend an echocardiogram as the passive congestion pattern suggests right-sided heart failure. Concurrent left-sided failure is suspected. Palliative therapy with Lasix is recommended at 2-3 mg/kg b.i.d. is warranted until an echocardiogram can be performed.

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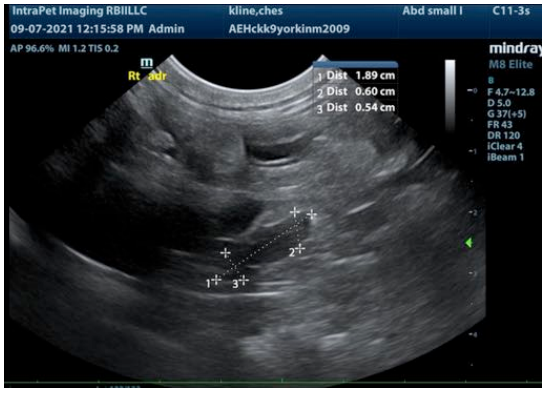
Rt Kidney
Dist 4.02 cm
mindray
M8 Elite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Dist 0.54 cm
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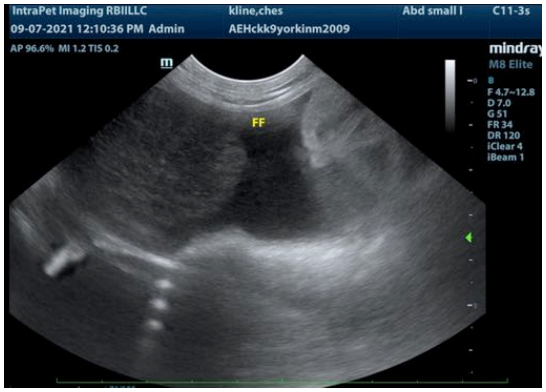
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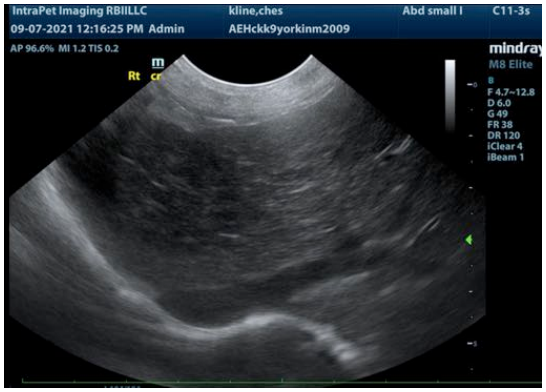
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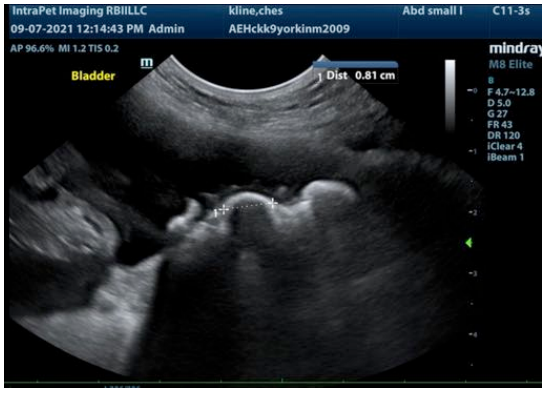
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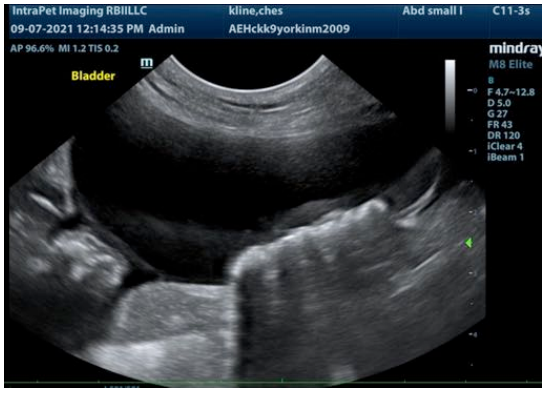
Bladder
Dist 0.81 cm
mindray
M8 Elite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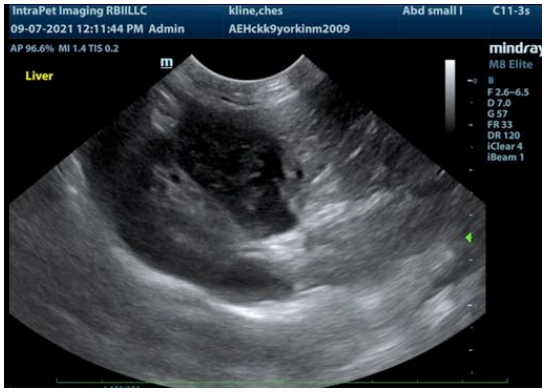
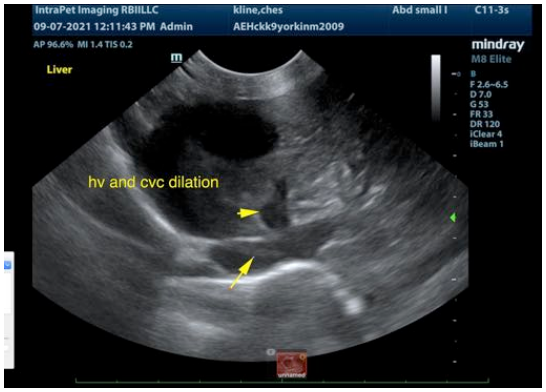
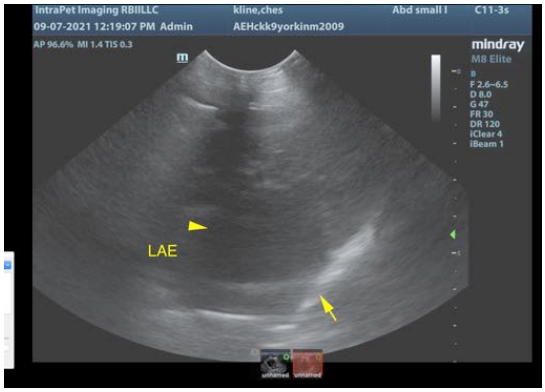
Bladder
mindray
M8 Elite




**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.

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