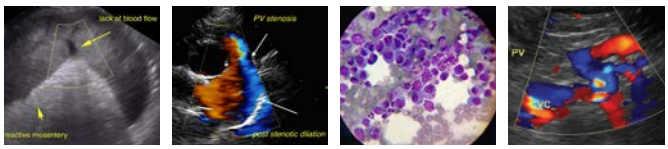
SonoPath
Clinical Sonography & Telecytology
EDUCATIONAL TELECONSULTATION SERVICES™



SonoPath.com
1-800-838-4268 info@sonopath.com

PATIENT
Sampson Learn

SPECIES
Canine

BREED
Miniature Schnauzer

SEX
Neutered Male

AGE
7 Years

WEIGHT
17.1 Pounds

INTERPRETED BY
Eric Lindquist, DMV
DABVP, Cert. IVUSS

IMAGING PERFORMED BY
Dr. Maggiulli

HOSPITAL NAME
Willamette Vet Hospital

REFERRING VET
Dr. Maggiulli

INVOICE
43727

DATE
12/24/22

PRESENTING CLINICAL SIGNS

Diabetes for over 1 year, 1 d hx of V+ and anorexia, blind with mature cataracts and possible KCS formation.

Abnormal PE/Chem/CBC/UA Results: BG = 117 EPOC = not DKA, pH 7.362, Glu 121, K 4.4, lactate 10.09 UA = (orange urine) USG 1.050, WBCs 24/hpf, suspect cocci, bilirubin 1, and urobilinogen 4 bacterial confirmation = no bacteria seen CBC = HCT 27.3%, non-regen with retics 44.1k, leukogram unremarkable with stress shifts, platelets wnl 431k chem17 = Tbili 1.4, GGT wnl at 0, ALT 166, ALP >2000, elevated Chol 360, low Amylase 262, Globulins 7.5, TP 9.8, Phosp 8.0 slide agglutination = negative vheck cPL = 117.1 mg/mL (<200 normal) submit fecalG and urine for culture, pending submit CBC for path review to antech, pending overnight-BGs: 341 at 2am, 362 at 5am 5:50a EPOC = Glu 296, lactate 10.67, lytes wnl 6:30a PCV/TS = 30%, >12 (lipemic)

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 were noted. Ureteral papillae were normal. The pelvic urethra was imaged 1.0 cm beyond the cystourethral junction.

The residual prostate was uniform at 2.0 cm.

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 measures 4.5 cm. The right kidney measured 4.6 cm.

Adrenal Glands

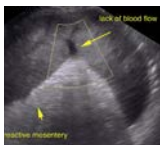
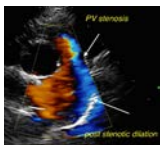
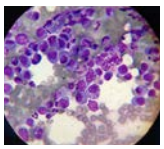
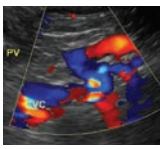
Both **adrenal glands** were visualized and recognized as having normal shape, size, position and echogenicity for this breed. The phrenic vasculature, glandular echogenicity and detail were unremarkable. Capsule, cortex, and medullary definition were normal for this age patient. The right adrenal gland measured 0.60 cm at the cranial pole and 0.45 cm at the caudal pole. The left adrenal gland measured 0.60 cm at the cranial pole and 0.55 cm at the caudal pole.

Spleen

The **spleen** was largely smooth with subtle heterogeneous parenchymal changes while maintaining normal echogenic relationship to the liver and kidney. These changes are consistent with normal age-related alteration. The capsule was smooth without noticeable impingement from within the spleen or from pathology in the adjacent abdomen. The splenic vasculature demonstrated normal volume without signs of congestion or significant contraction. No evidence of active acute or chronic inflammatory, neoplastic, or infarctual changes were noted.

Liver

The **liver** was uniformly swollen with minor, excessive gallbladder debris and over distension with dependent and suspended bile without evidence of overt mucocele formation. However, excessive sludge was present. The liver presented coarse architecture with mildly increased portal markings and

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subtle, mixed echogenic changes. This is consistent with vacuolar hepatopathy and some level of remodeling and history of inflammatory component. There was no overt suspicion of neoplasia.

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.

ULTRASONOGRAPHIC FINDINGS

- Benign hepatopathy
- Age related renal and hepatic changes
- Structurally unremarkable urinary tract

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

UTI is likely an underlying complicating factor in the diabetic management of this patient. The remainder of the sonographic appearance would be consistent with diabetic patient expectations.

Chronic UTI Protocol
I recommend **Enrofloxacin** (5-10 mg/kg SID PO) (In patients > 1 year of age) in late pm after urination to maximize urinary concentrations overnight. This assumes that culture supports this use. Repeat **culture** at 3-4 weeks and continue treatment at least 7-10 days post negative urinary sediment and negative culture. *Note: Negative culture does not necessarily mean lack of UTI.* Other favorite antibiotics for chronic UTI include third generation Cefa (Ceftiafur or similar s.i.d. injectable) or Clavamox. If suspicion of occult urinary incontinence is present then **phenylpropanolamine (PPA)** (1-2 mg/kg BID) can be employed long term to enhance urethral tone.

This is a suggestive checkoff list when faced with an unregulated diabetic patient:

- UTI
- Dietary indiscretion/intolerance
- Pancreatitis
- Hyperthyroidism/hypothyroidism
- Exogenous steroids (including topical eye meds)
- Cushing's
- Acromegaly
- Owner compliance
- Insulin quality issues
- Antibodies to insulin
- Underlying Neoplasia
- Diffuse liver disease

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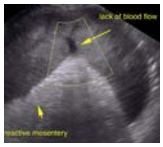
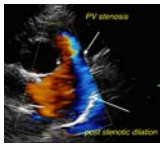
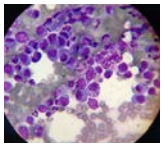
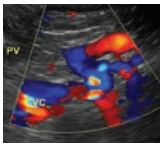

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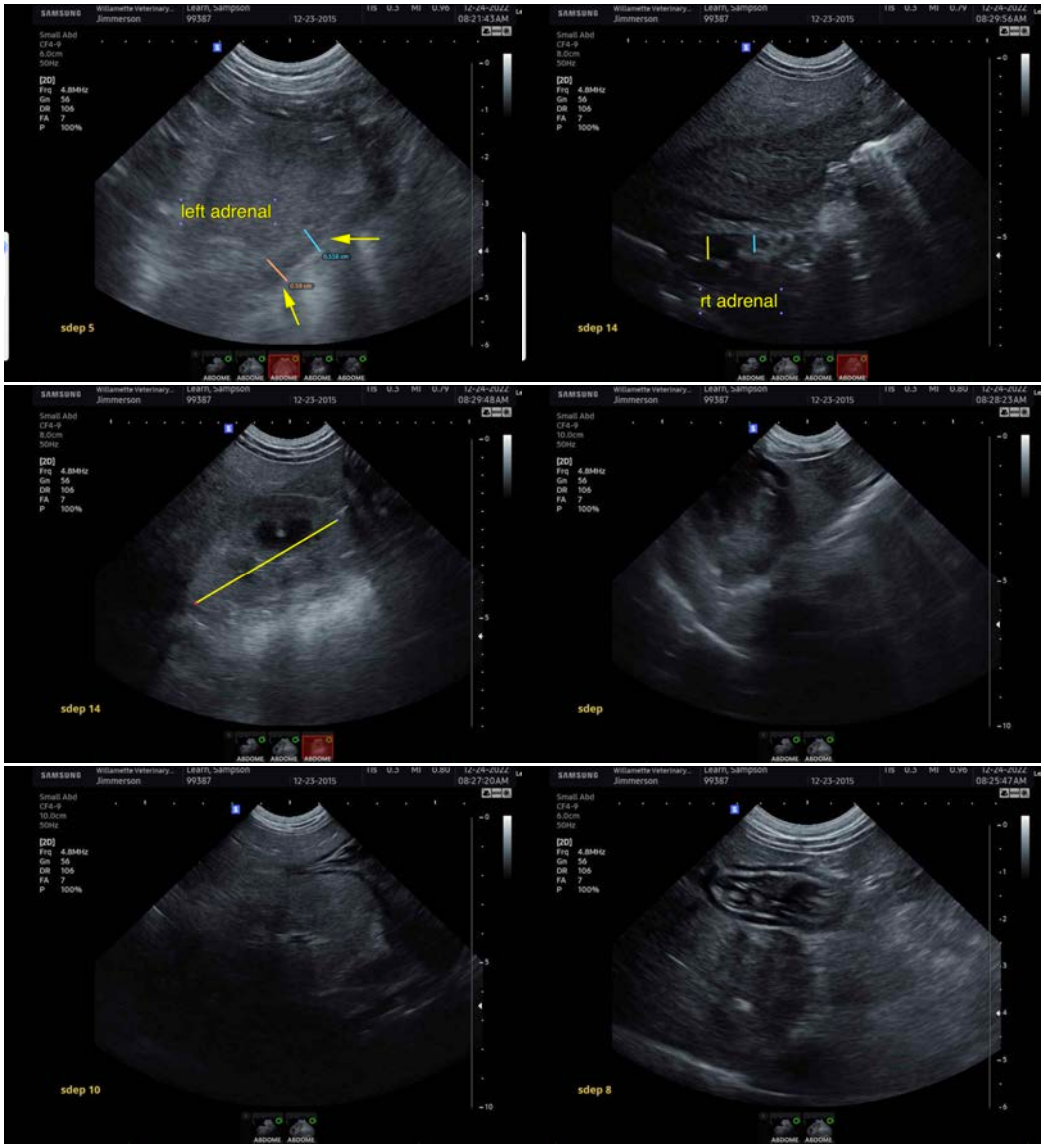

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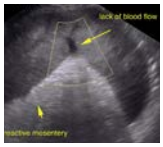
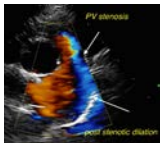
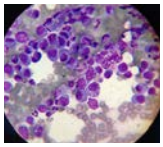
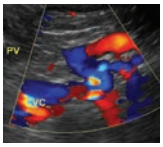

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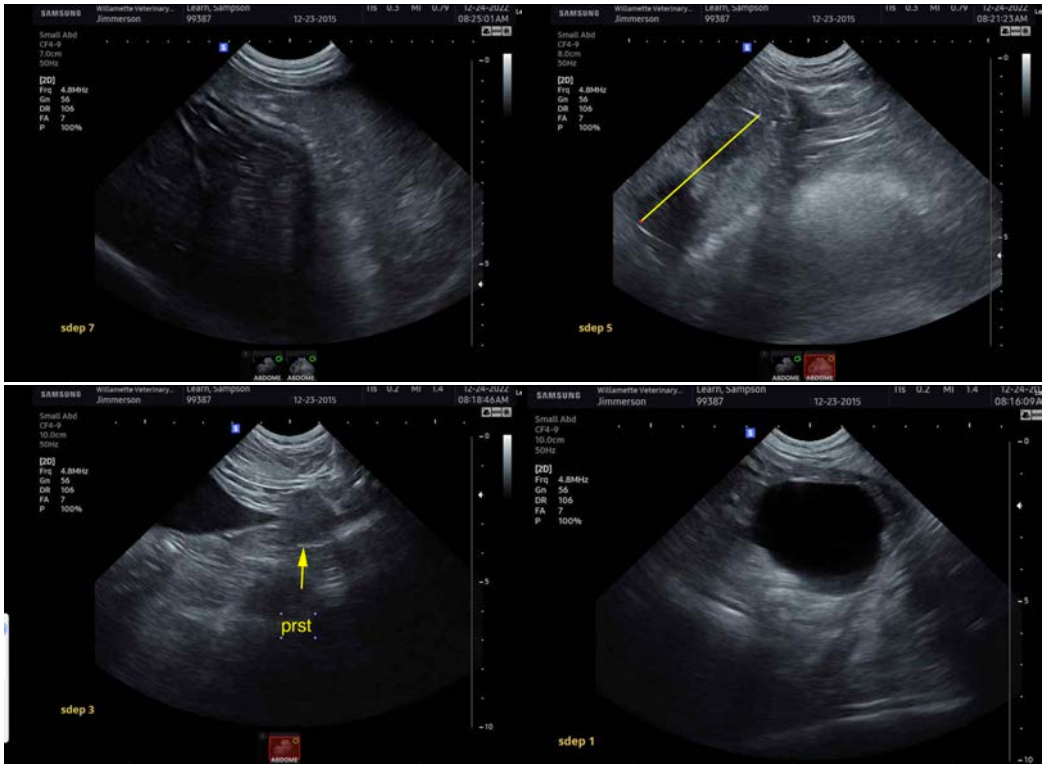

The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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